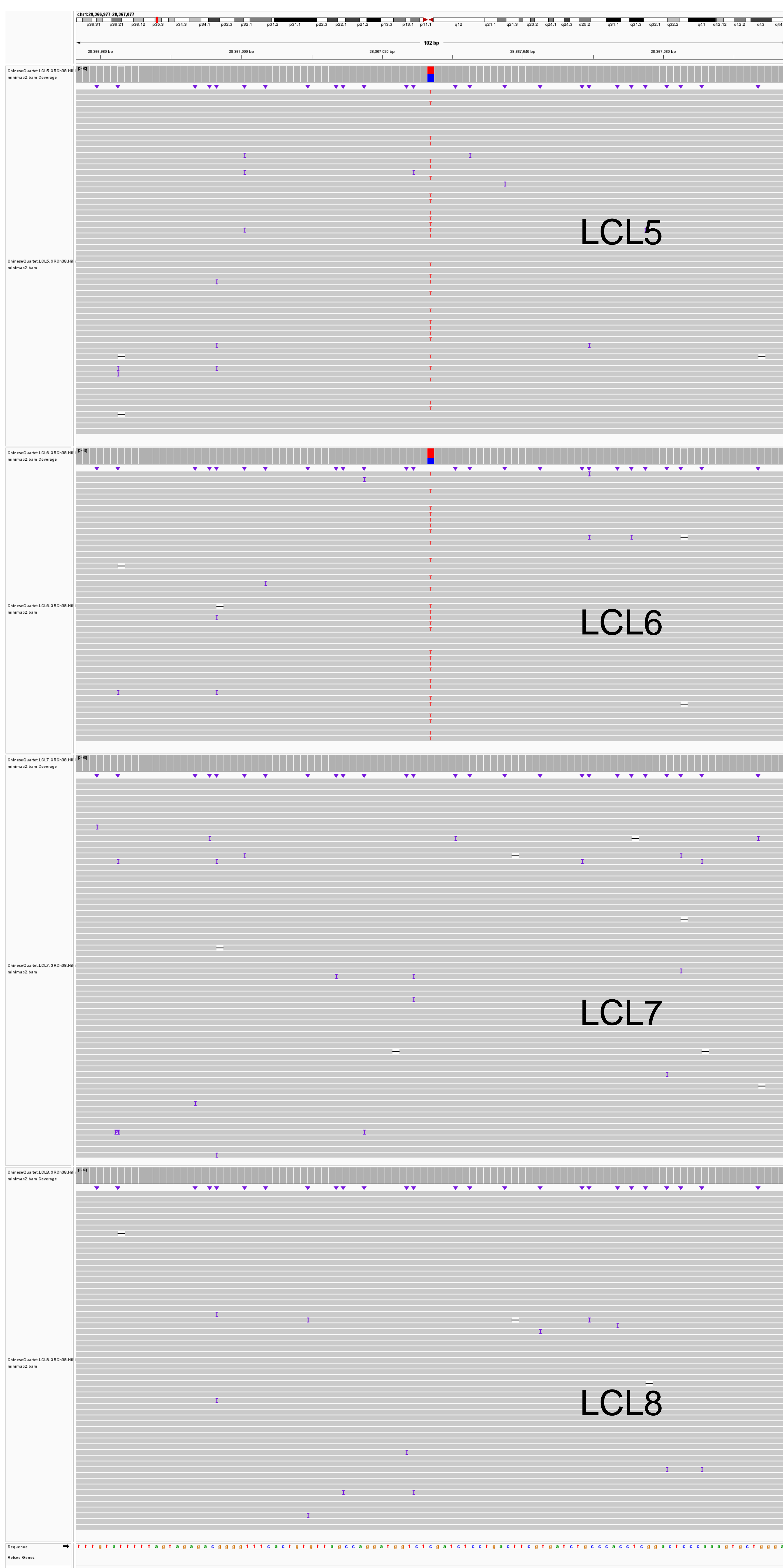


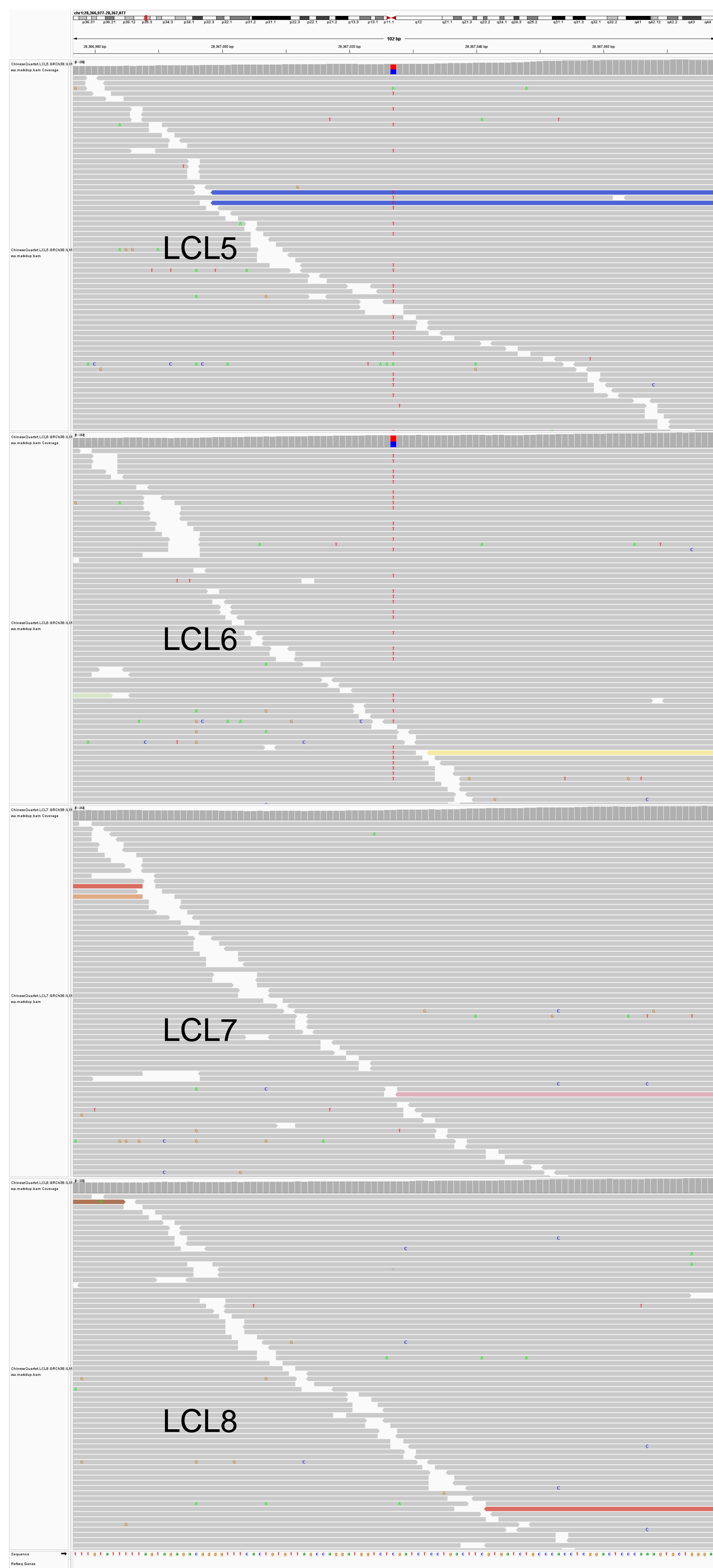
## Supplementary File 2

Manually curated candidate de novo and somatic mutations of the twins in Chinese Quartet.

# POS:chr1:28367027 Report DeNovo mutation by ILM



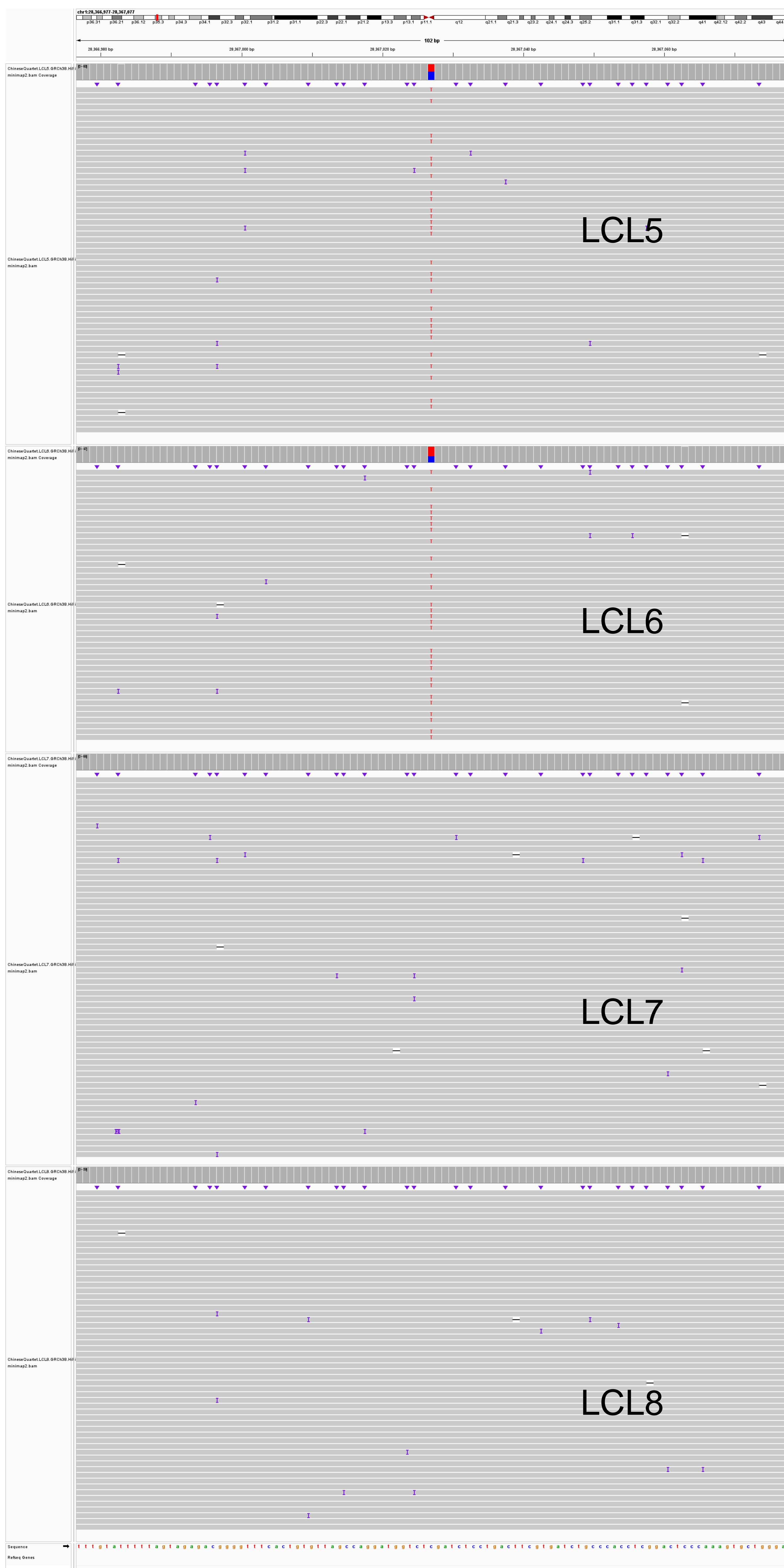
HiFi reads



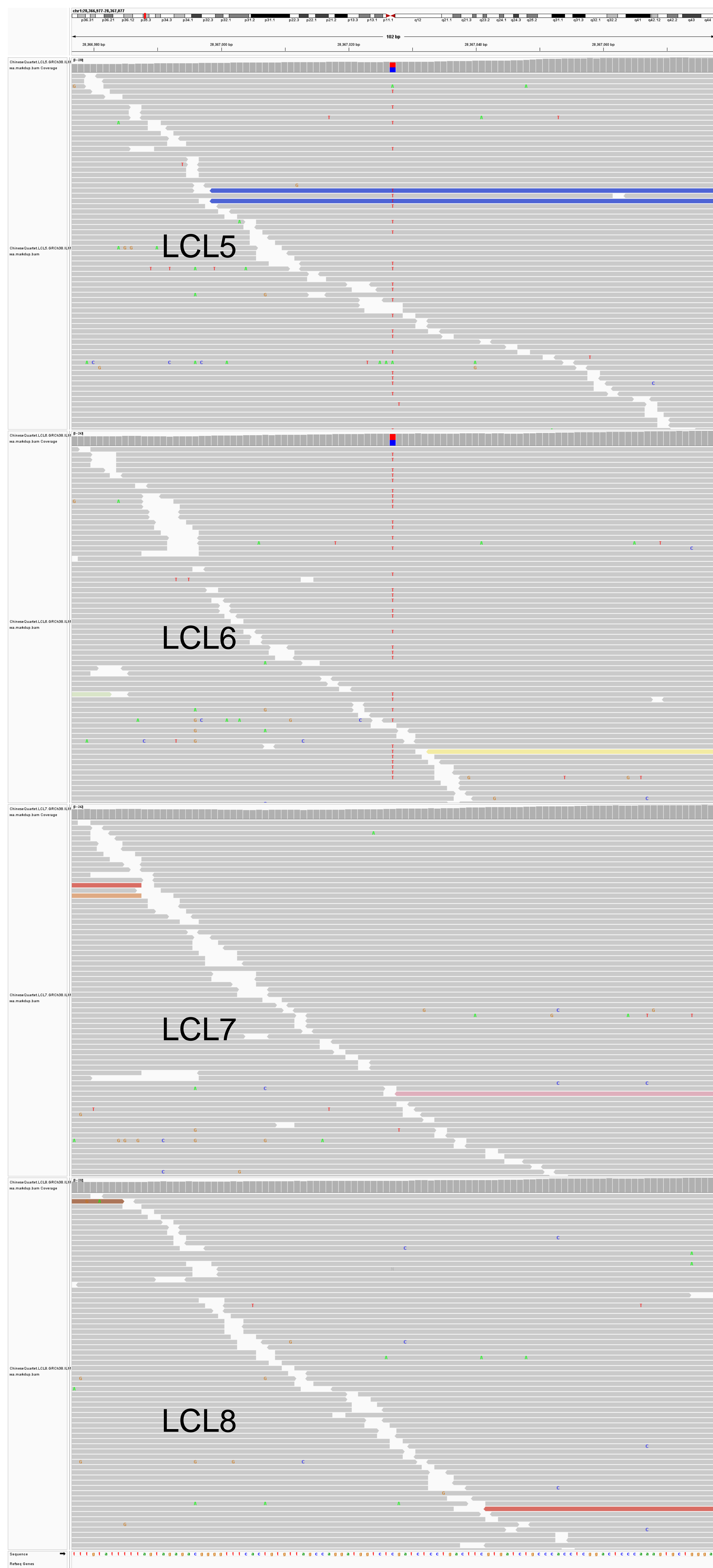
Illumina reads



# POS:chr1:28367027 Report DeNovo mutation by HiFi

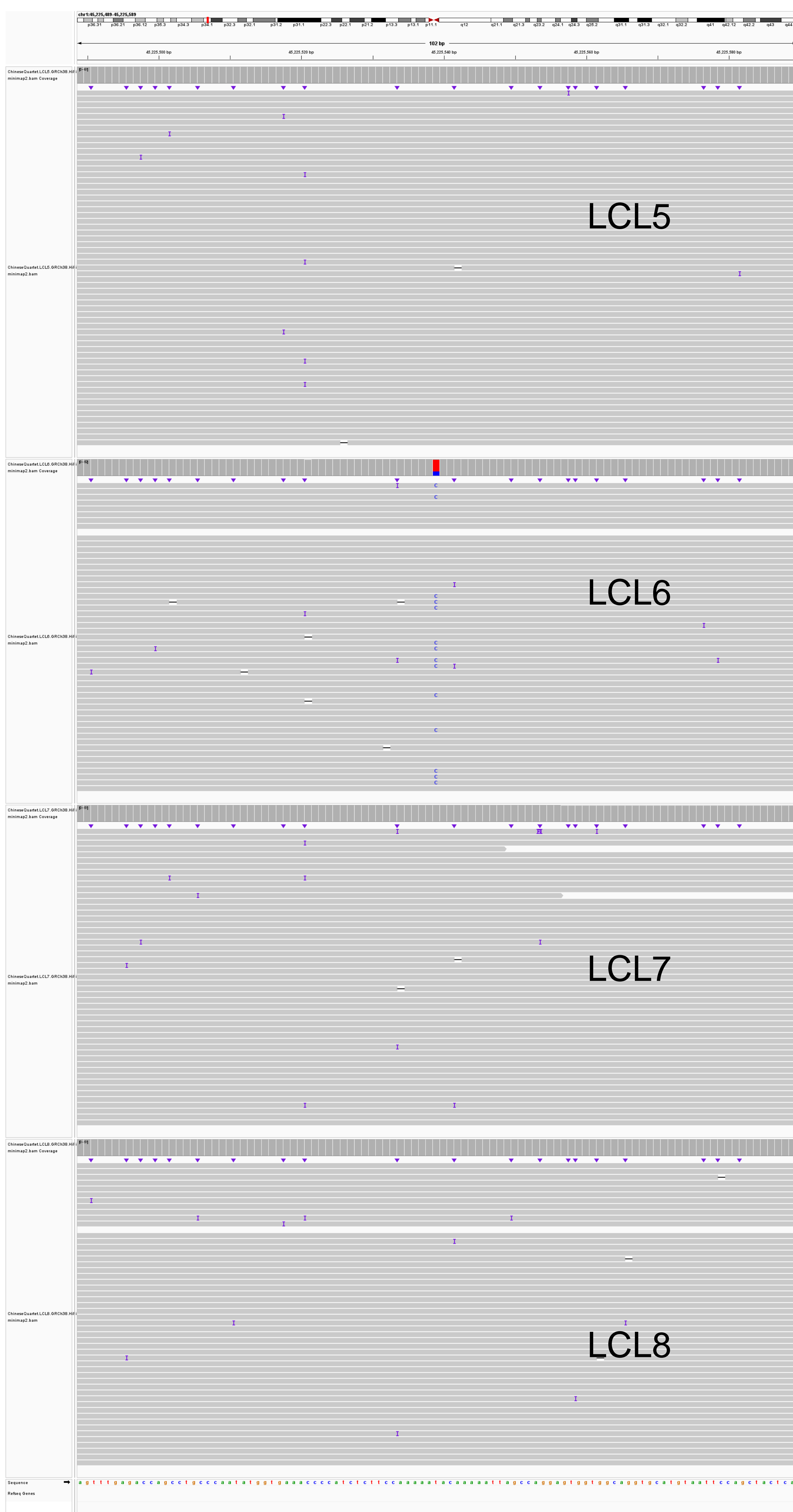


HiFi reads

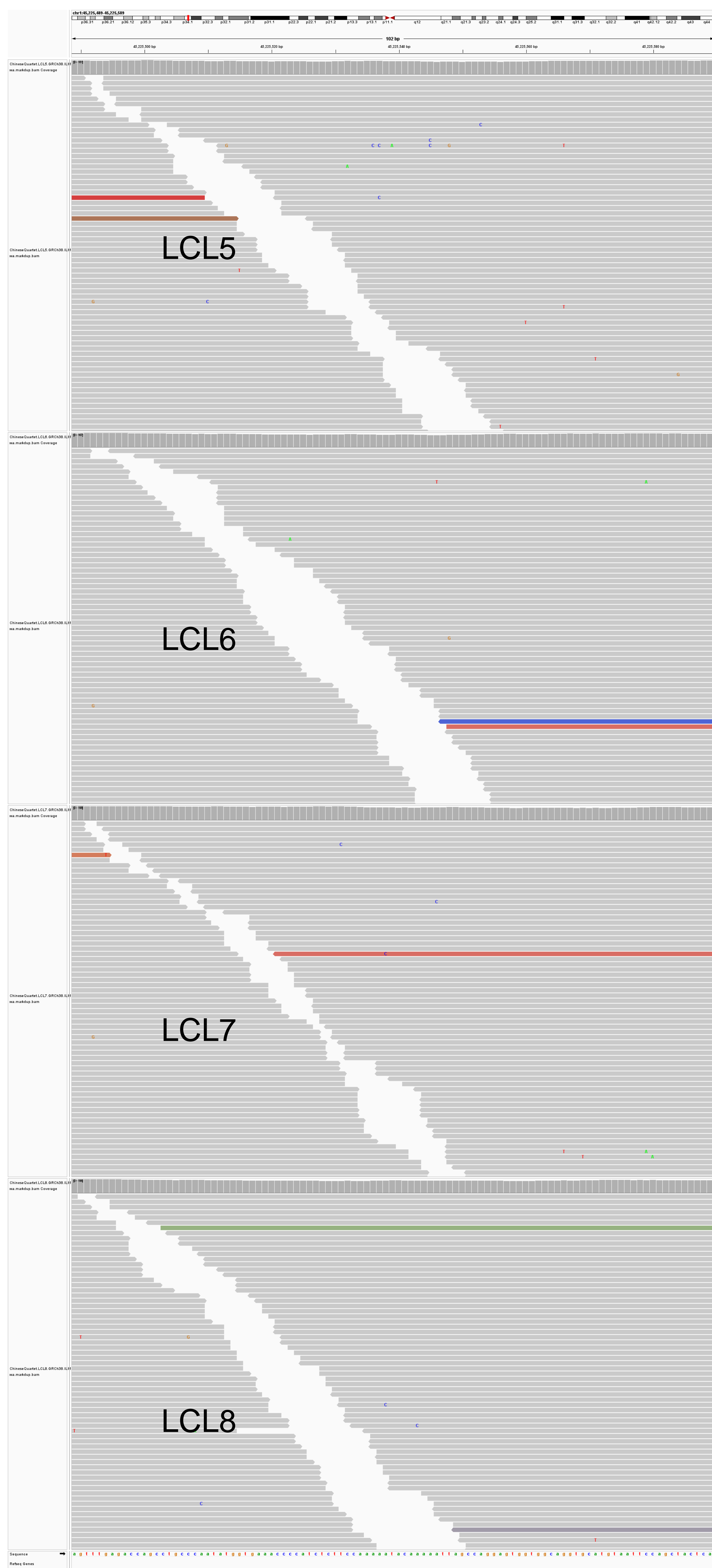


Illumina reads

# POS:chr1:45225539 Report Somatic mutation by HiFi

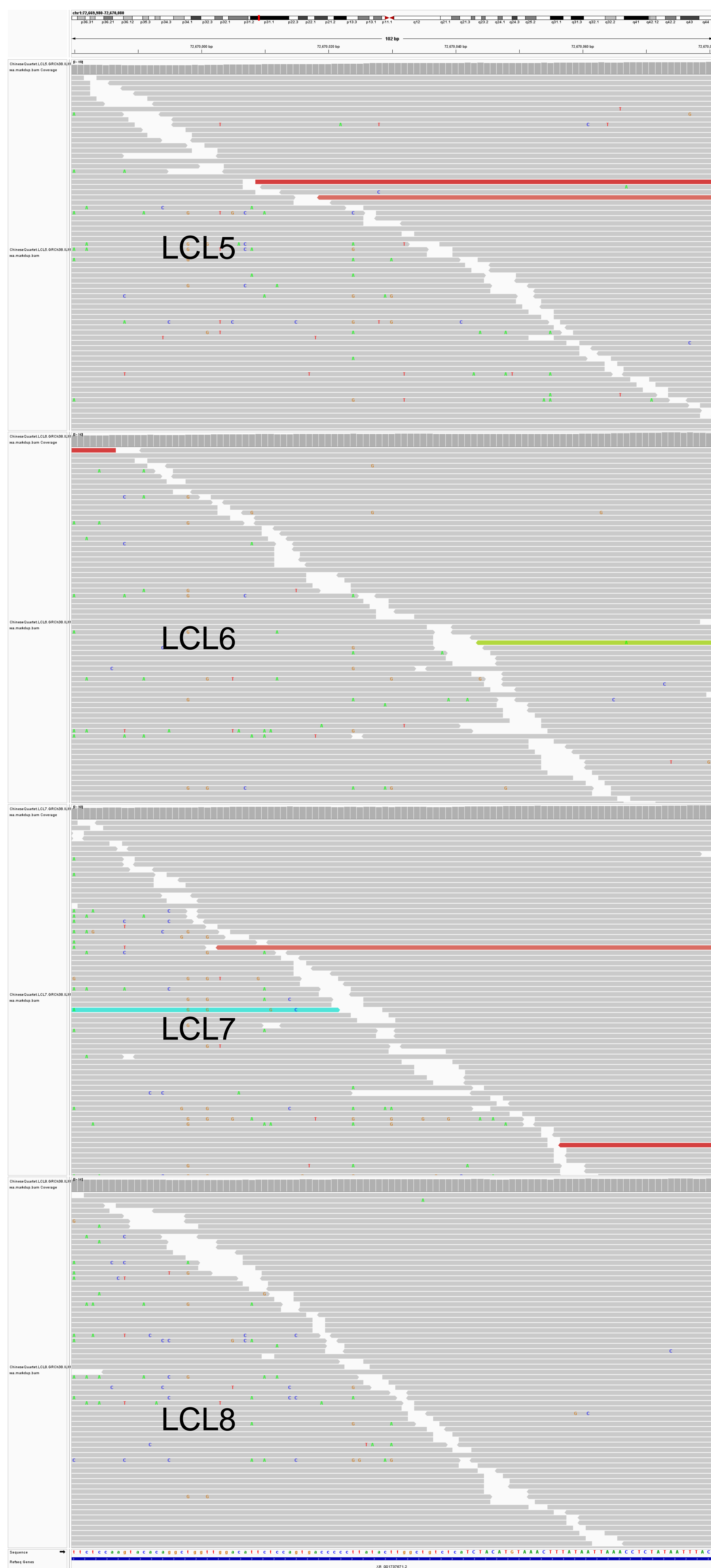
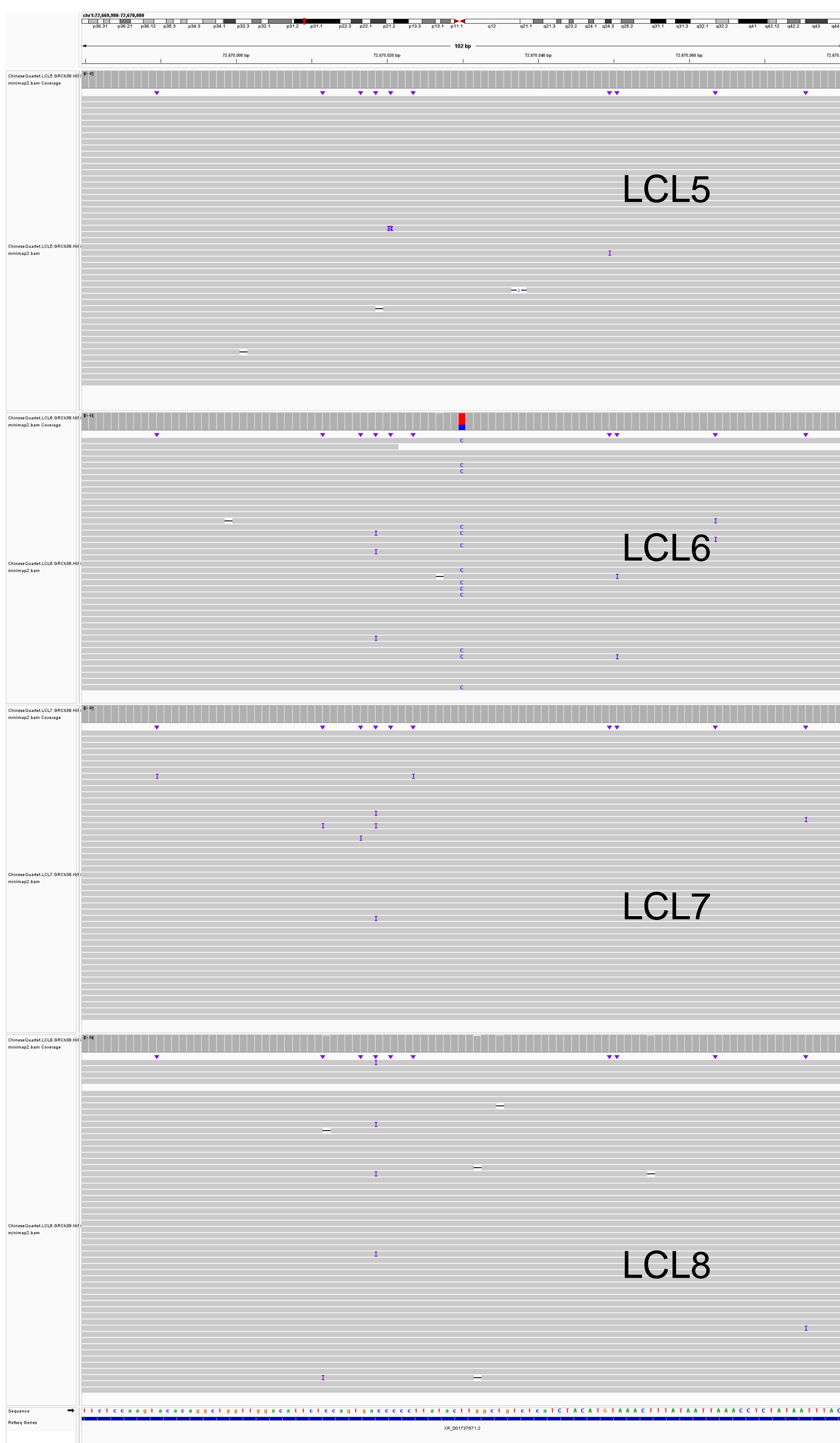


HiFi reads



Illumina reads

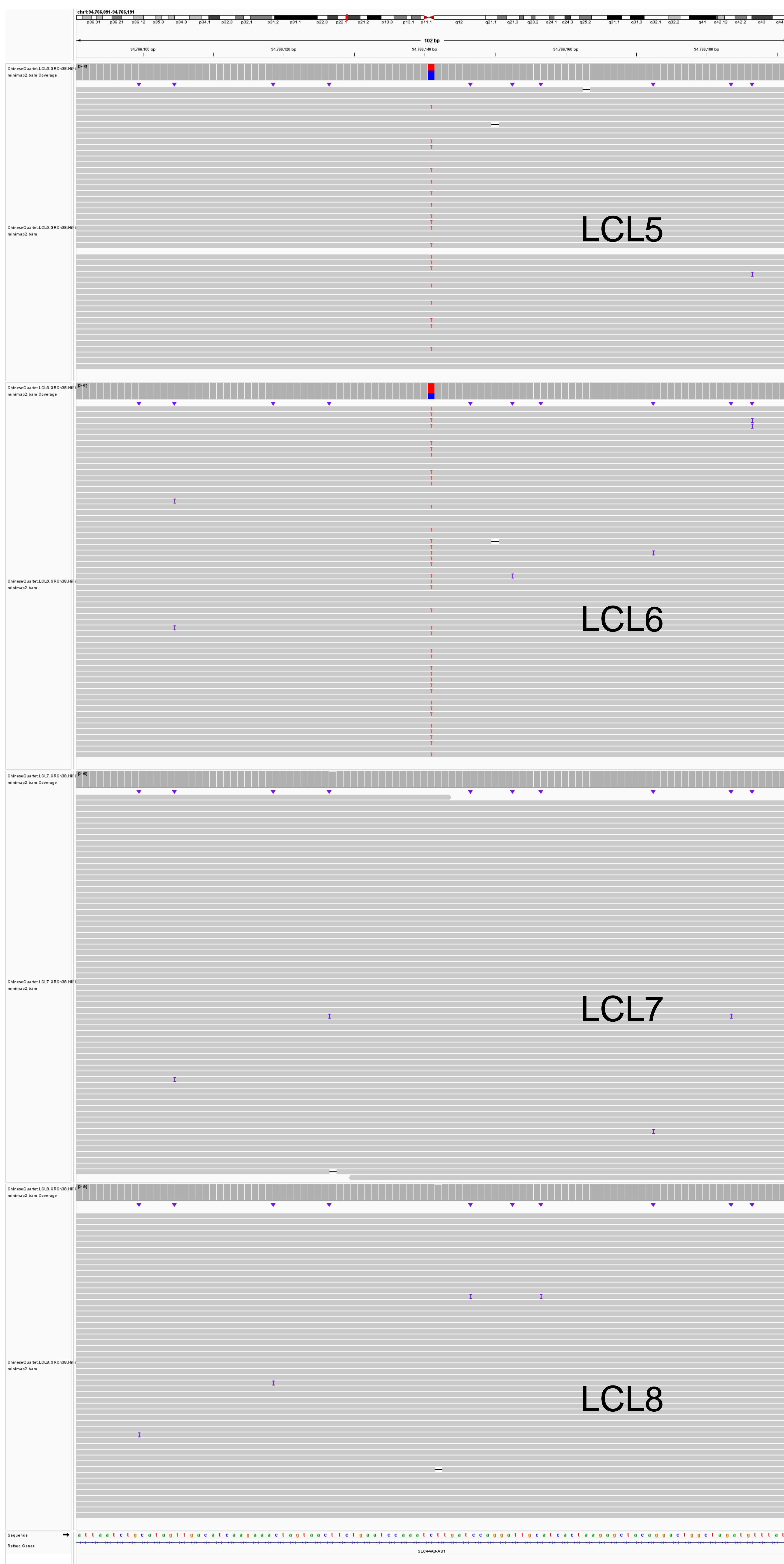
# POS:chr1:72670030 Report Somatic mutation by HiFi



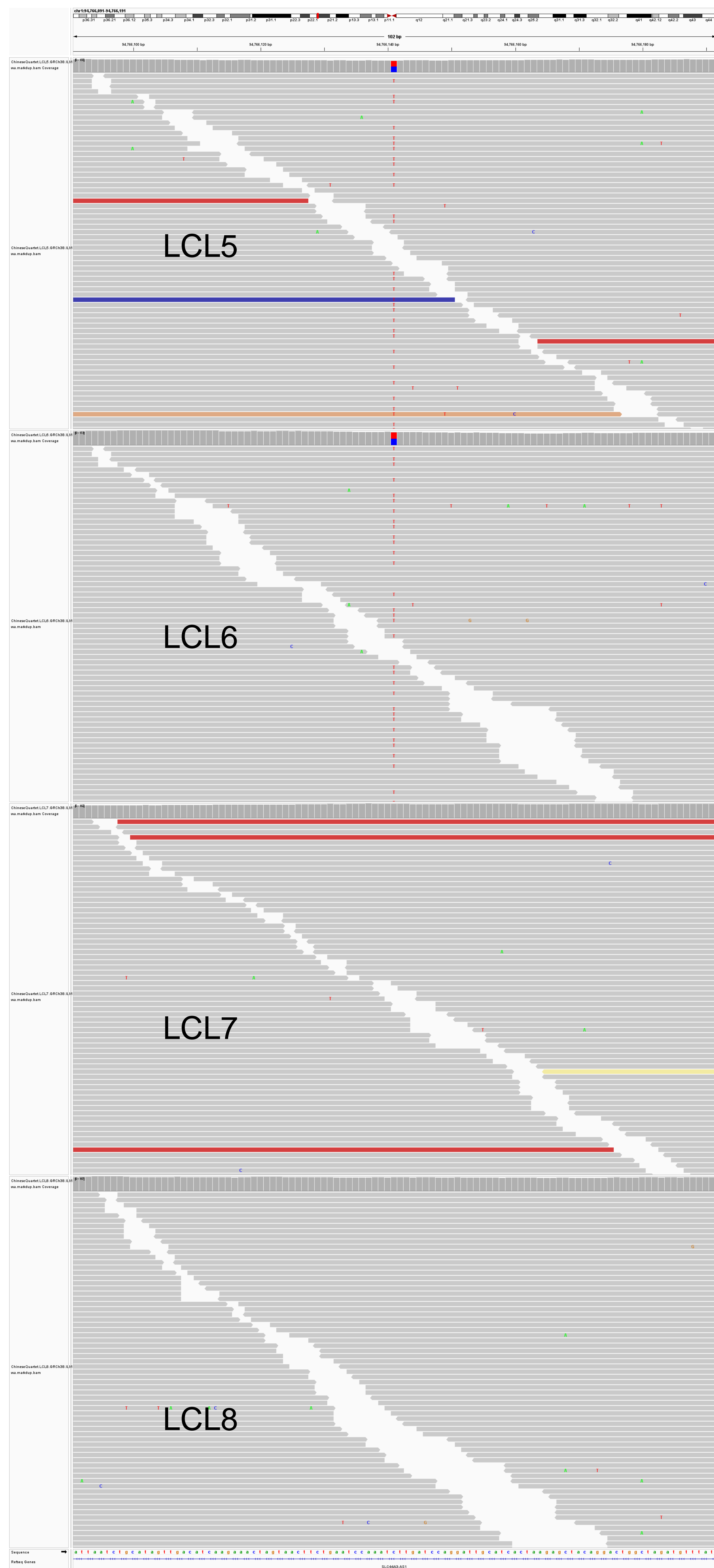
HiFi reads

Illumina reads

# POS:chr1:94766141 Report DeNovo mutation by ILM



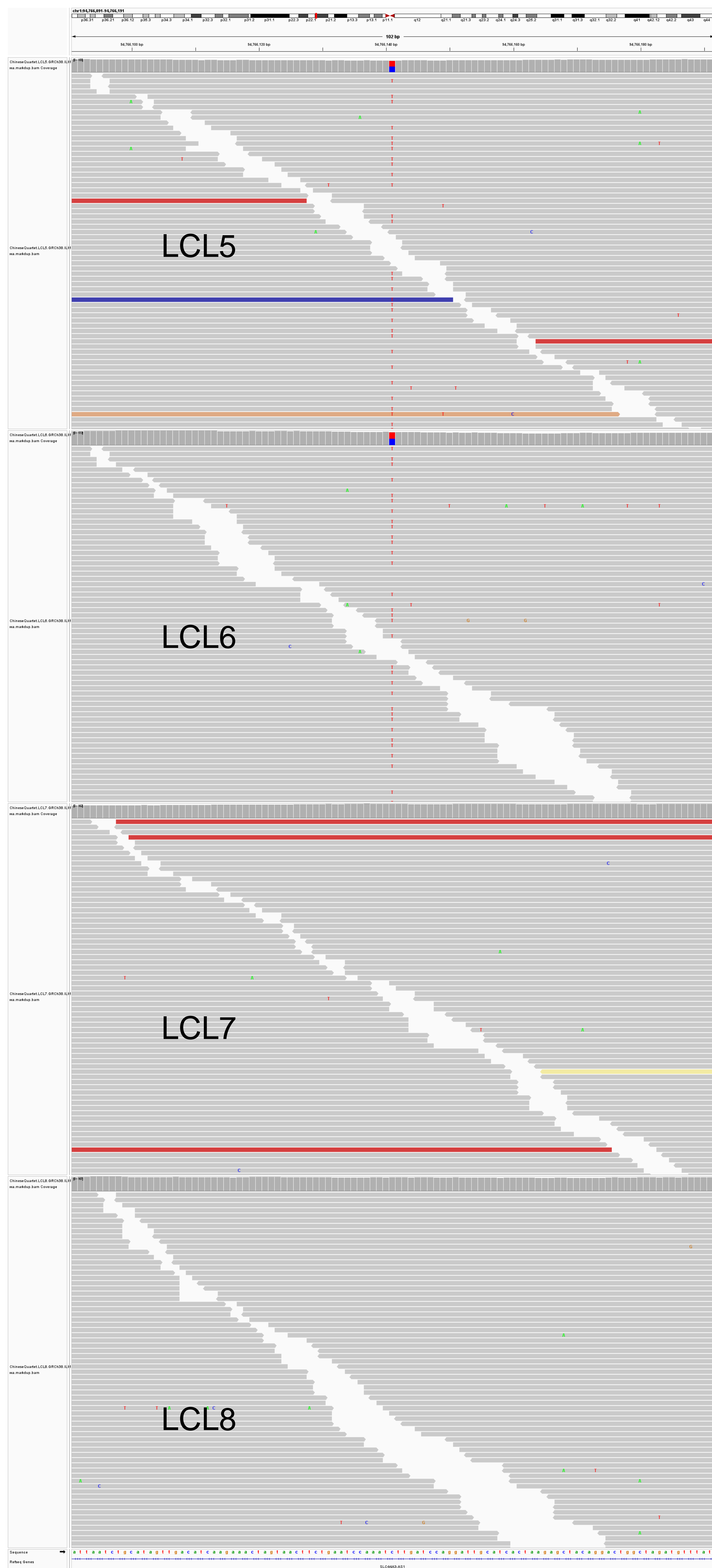
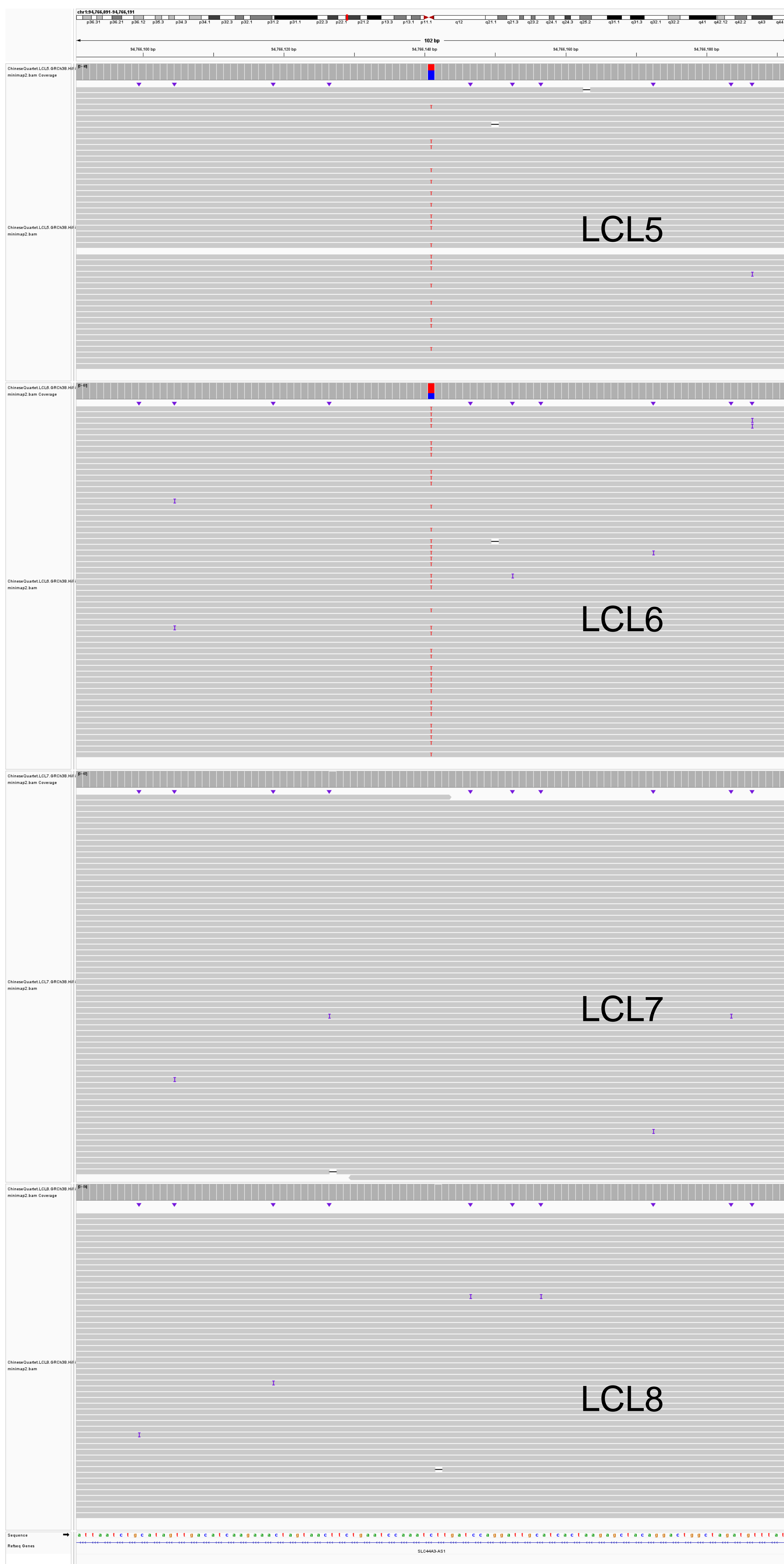
HiFi reads



Illumina reads



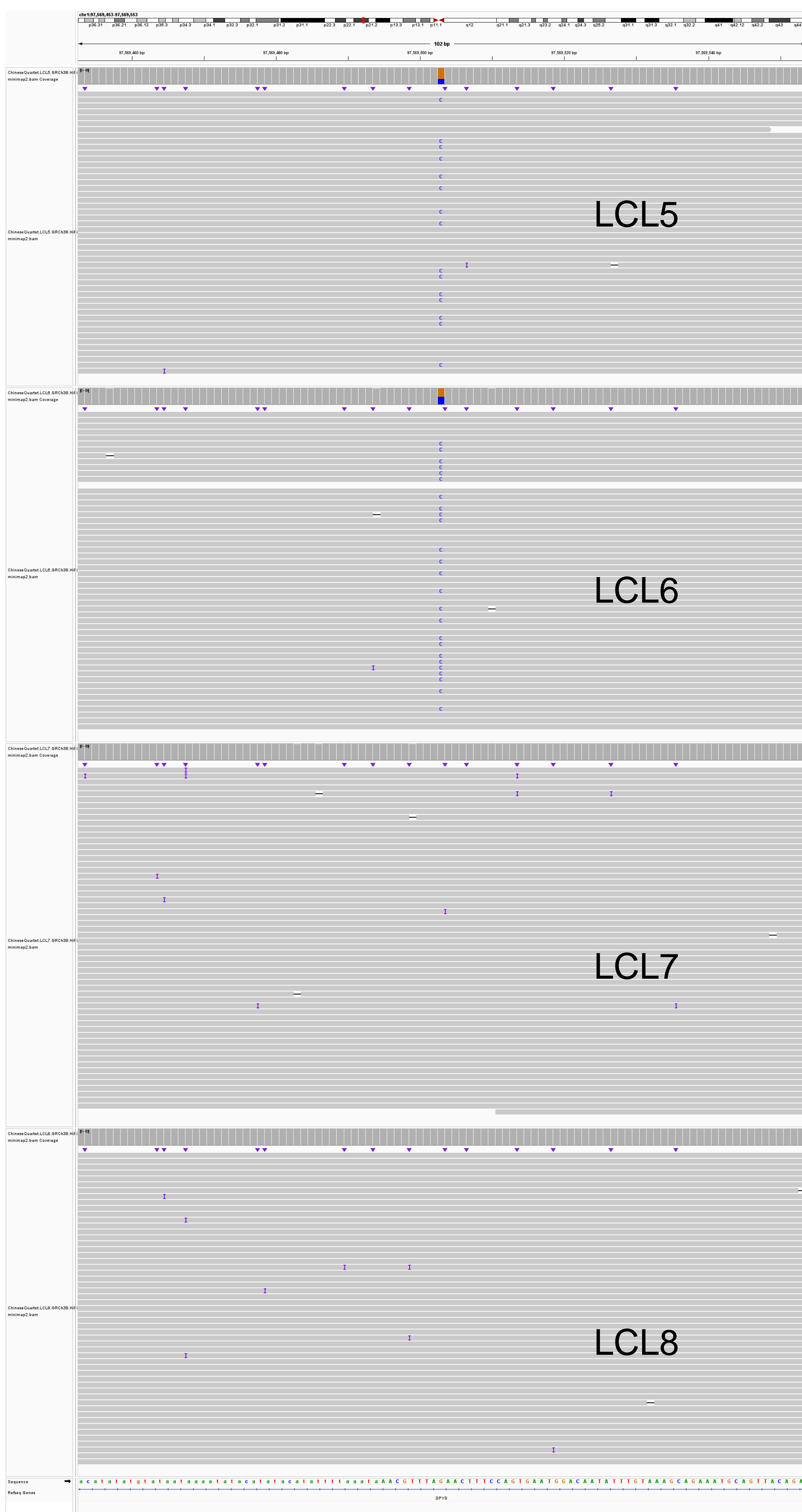
# POS:chr1:94766141 Report DeNovo mutation by HiFi



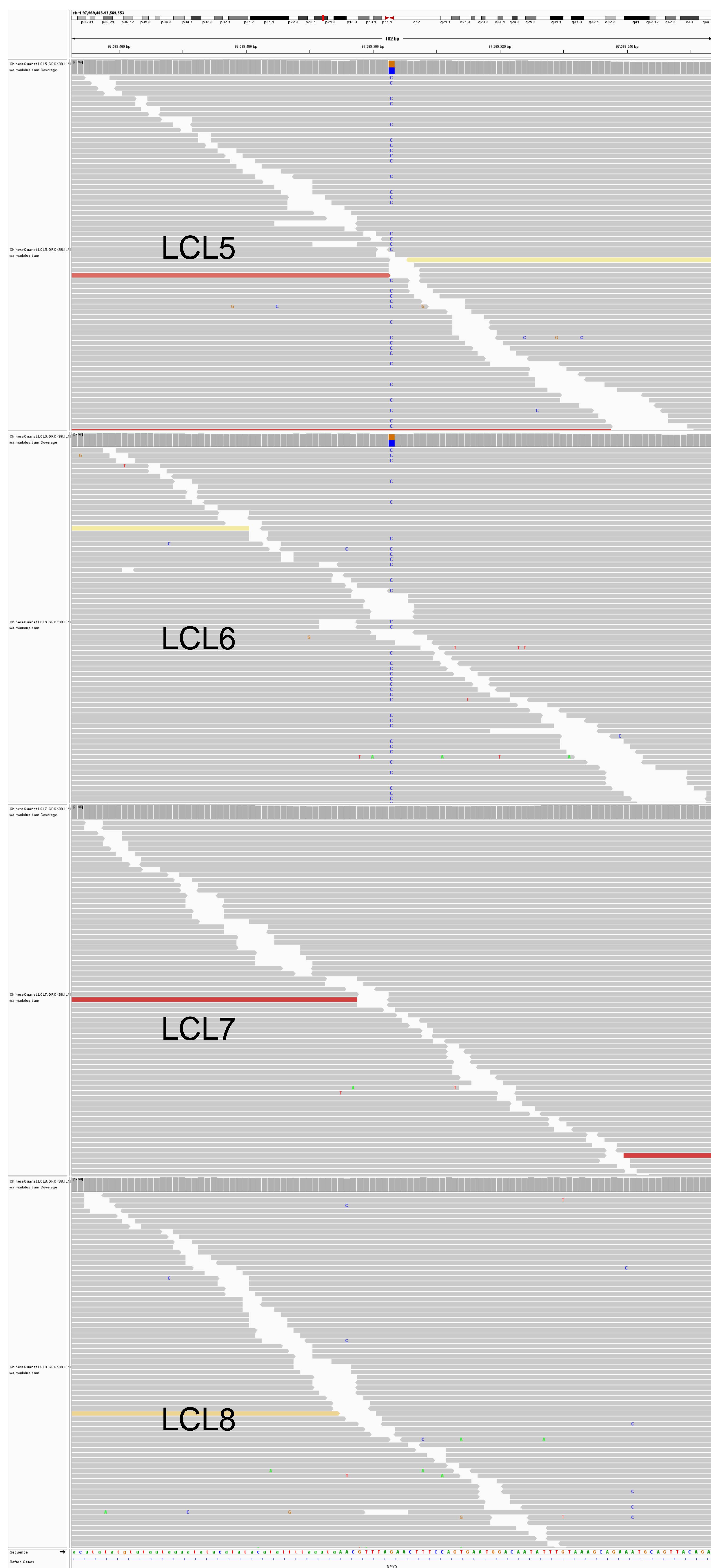
HiFi reads

Illumina reads

# POS:chr1:97569503 Report DeNovo mutation by ILM



HiFi reads

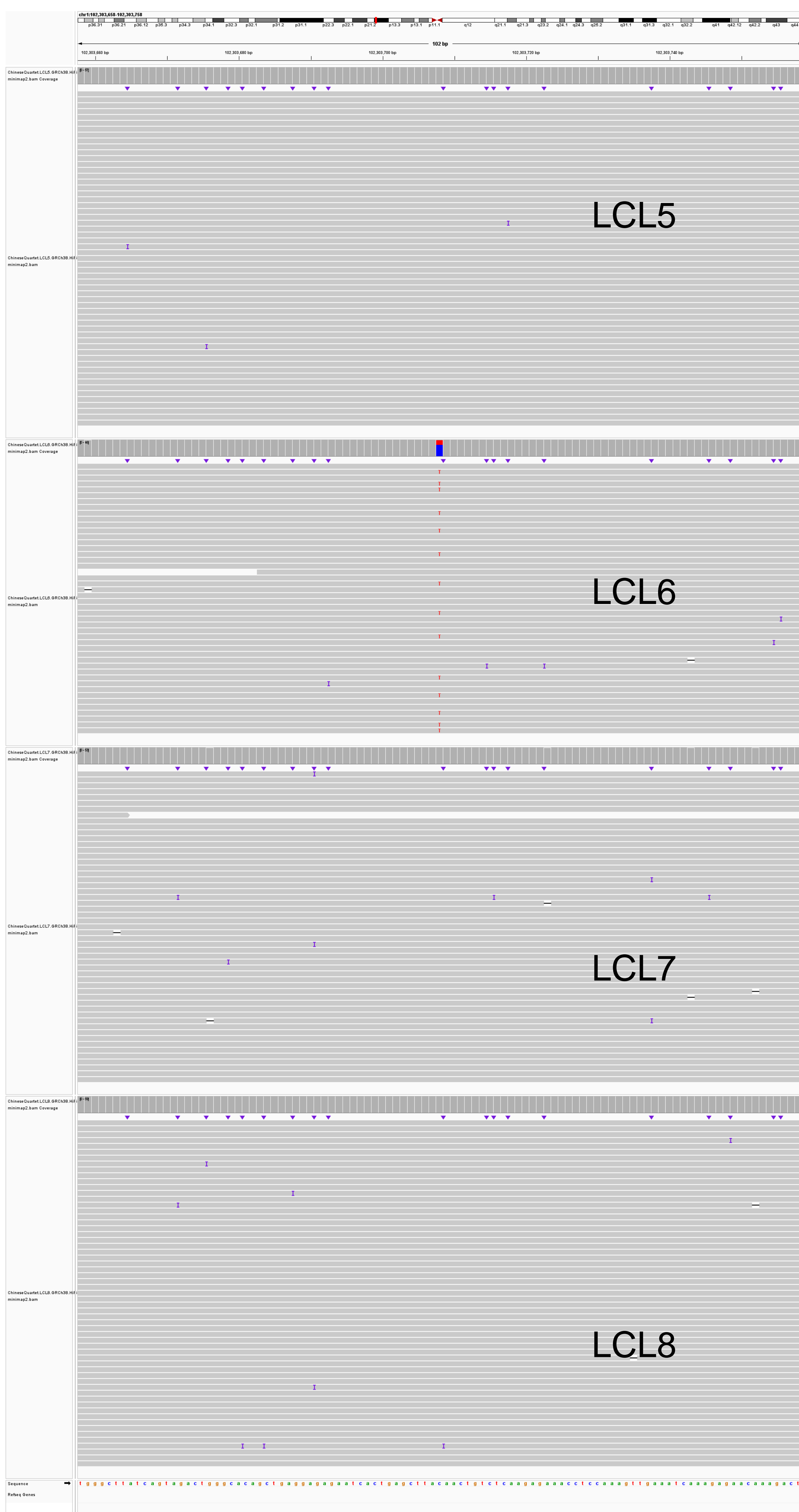


Illumina reads

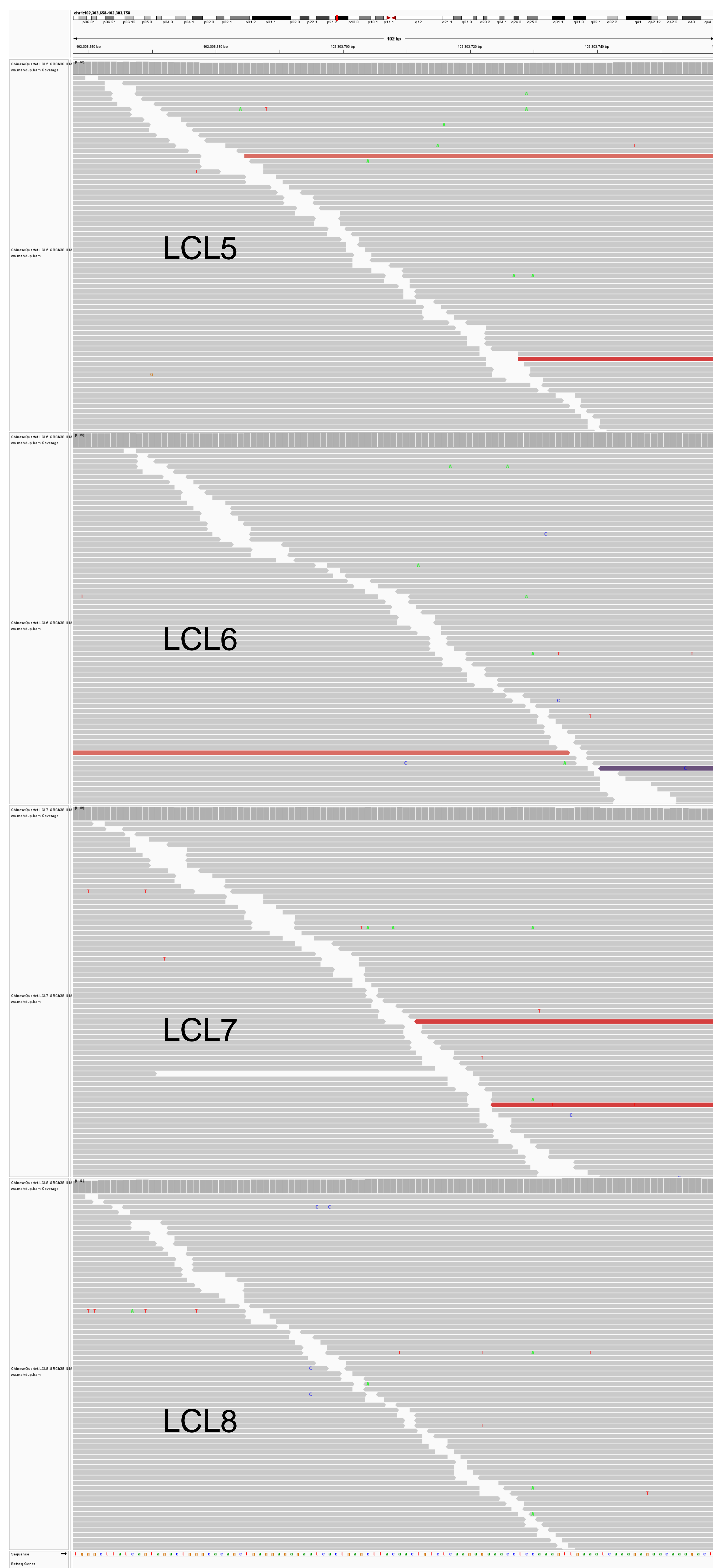




# POS:chr1:102303708 Report Somatic mutation by HiFi



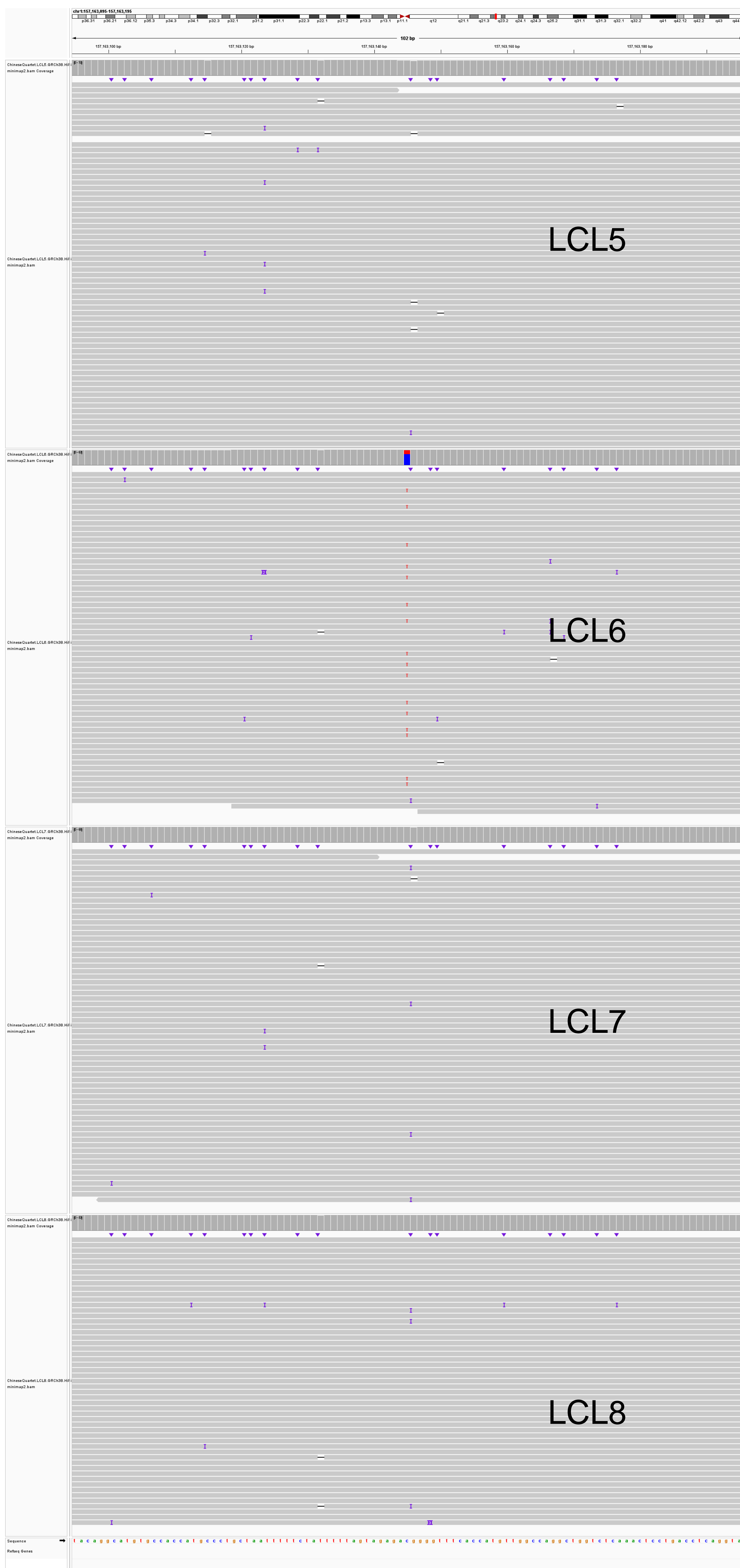
HiFi reads



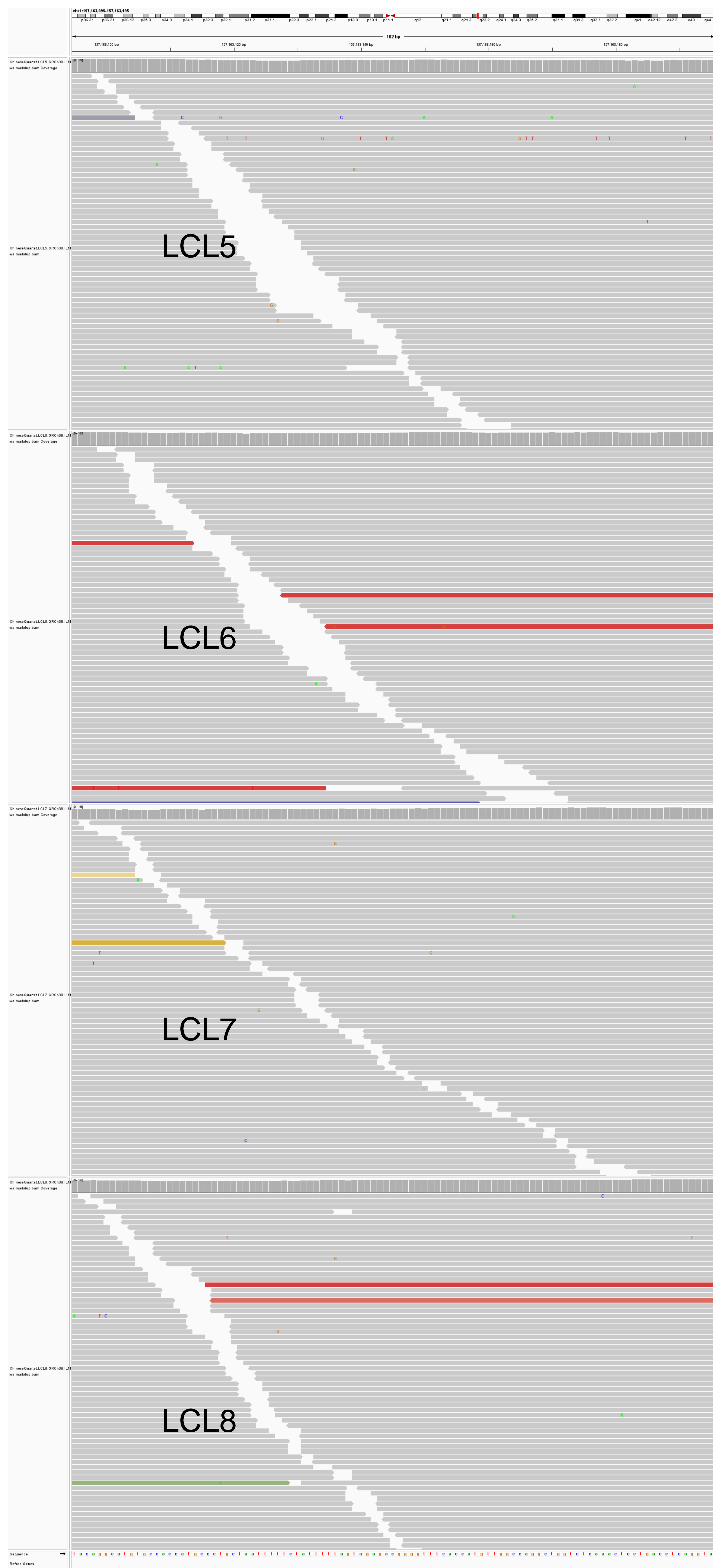
Illumina reads



# POS:chr1:157163145 Report Somatic mutation by HiFi



HiFi reads

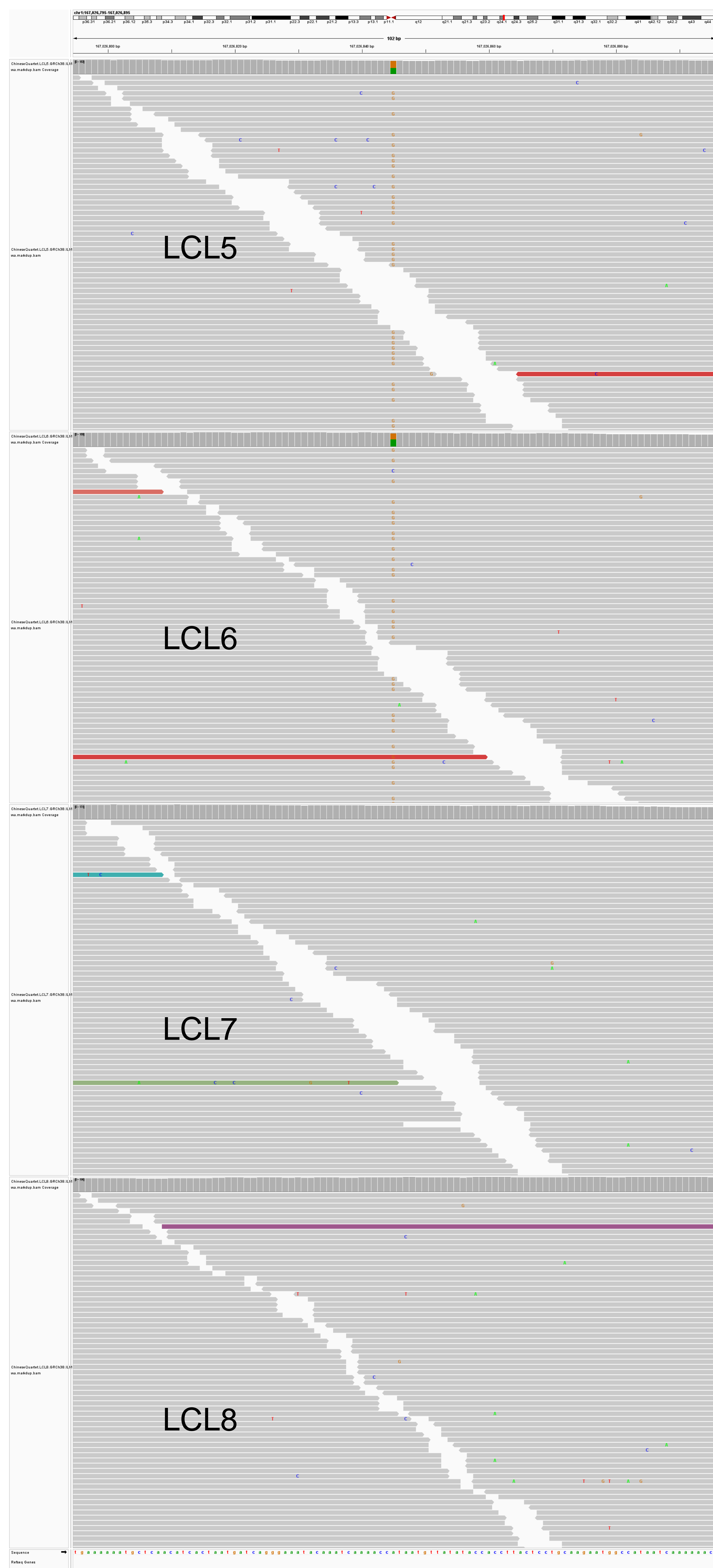


Illumina reads

# POS:chr1:167026845 Report DeNovo mutation by ILM



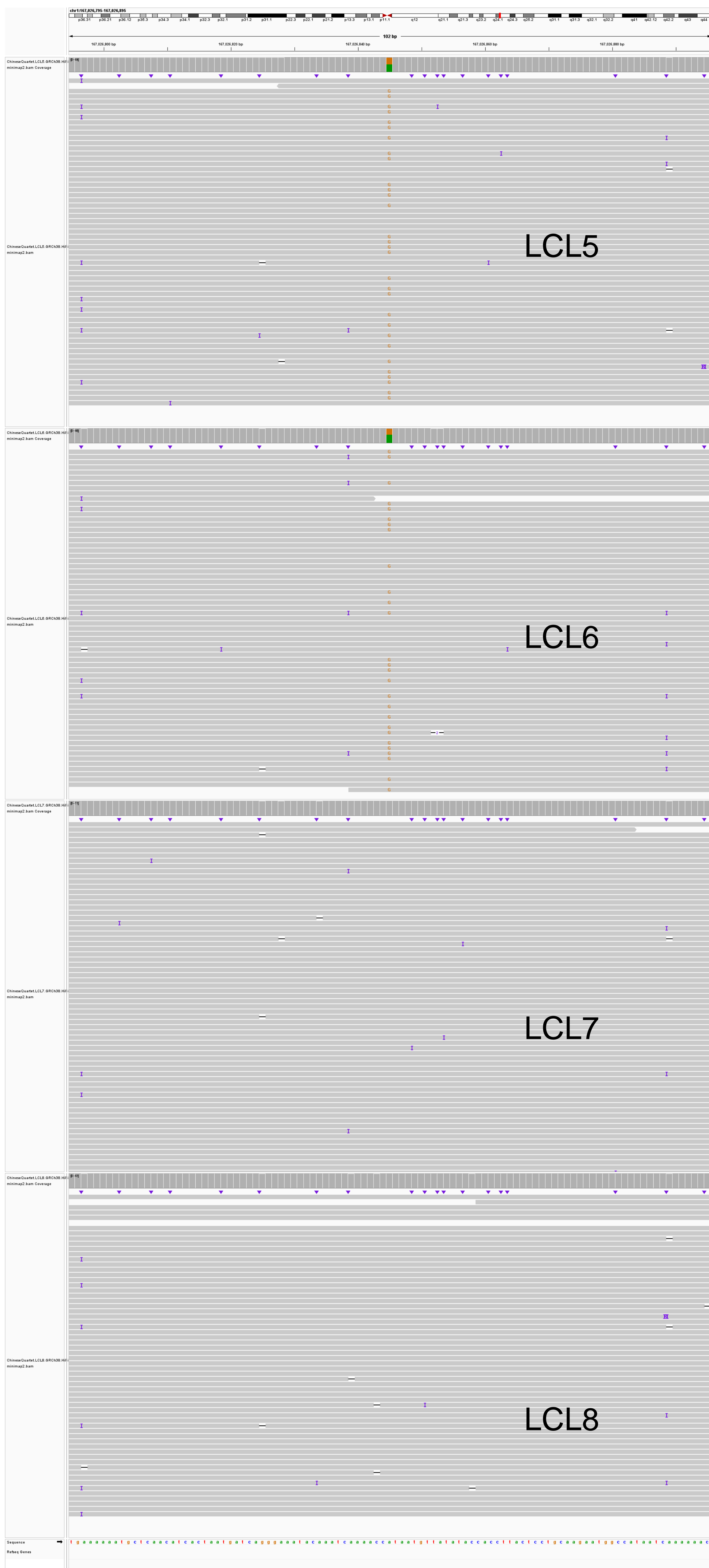
HiFi reads



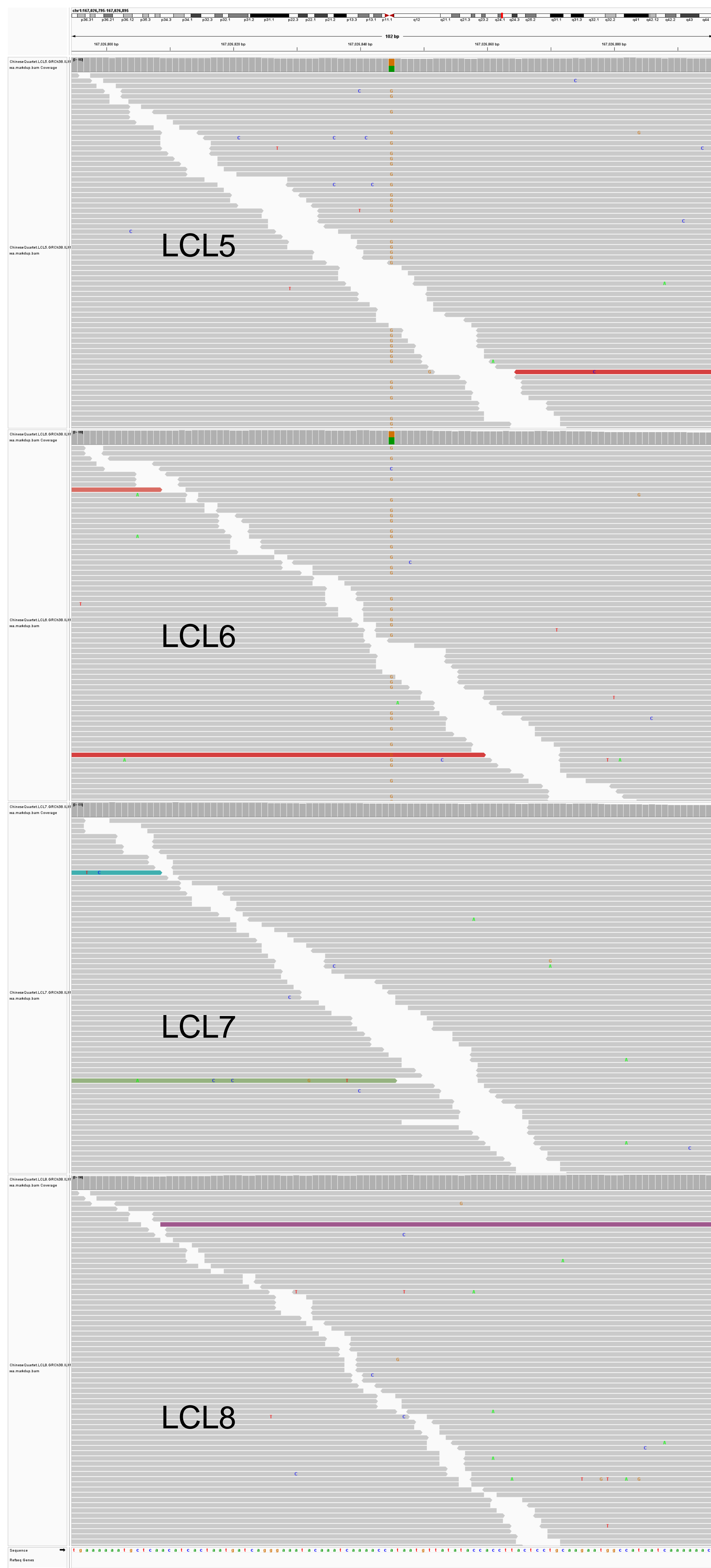
Illumina reads



# POS:chr1:167026845 Report DeNovo mutation by HiFi

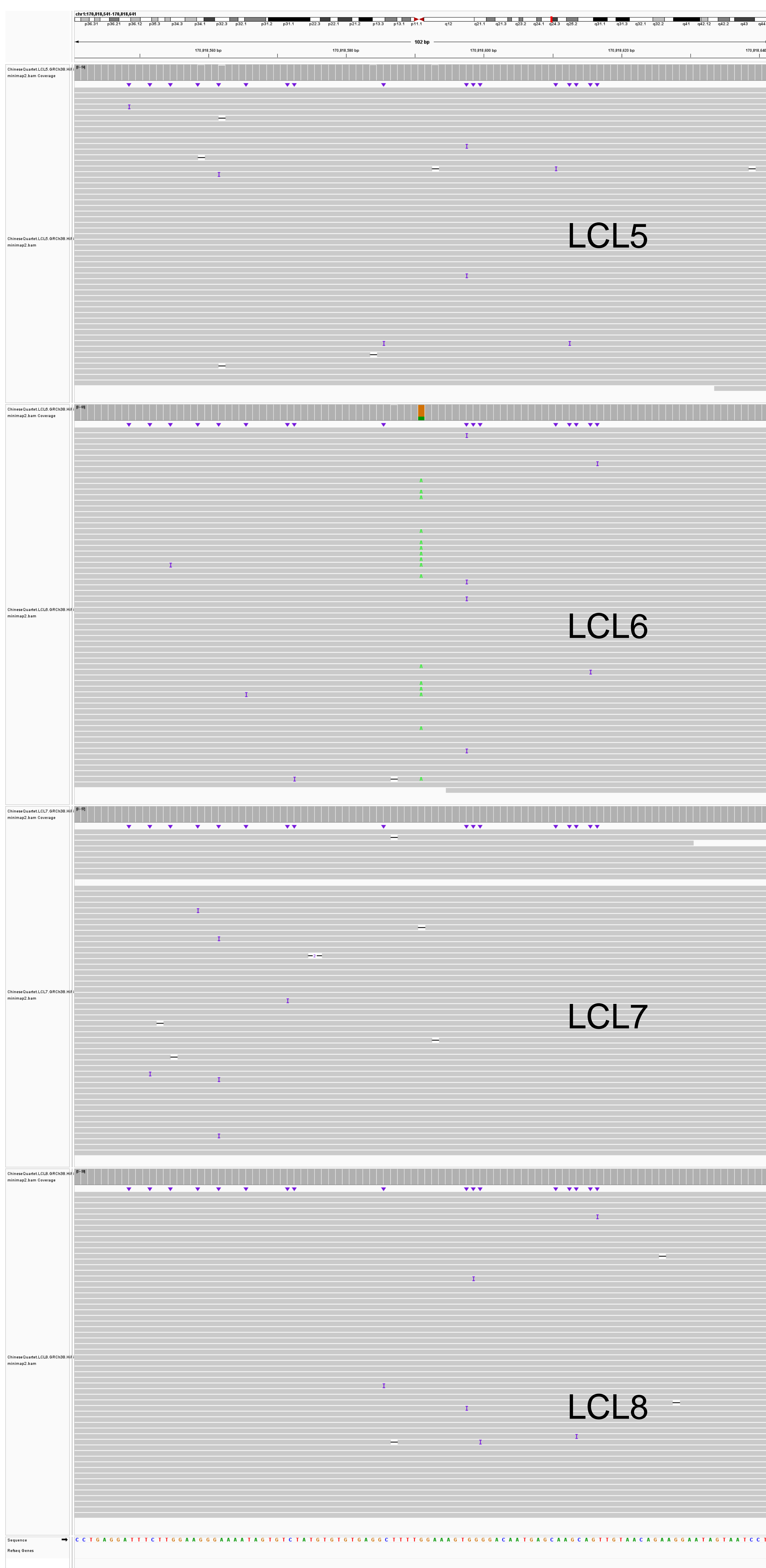


HiFi reads

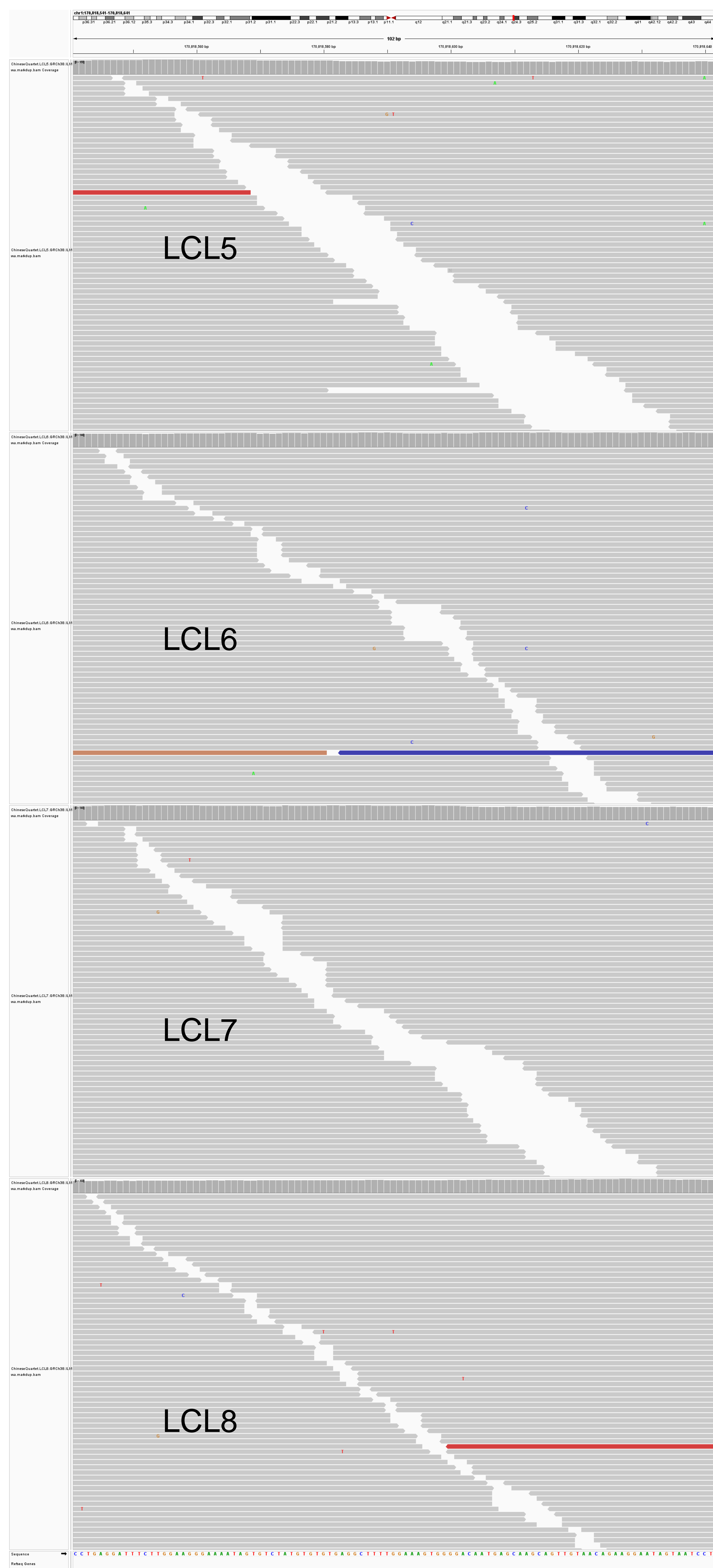


Illumina reads

# POS:chr1:170818591 Report Somatic mutation by HiFi

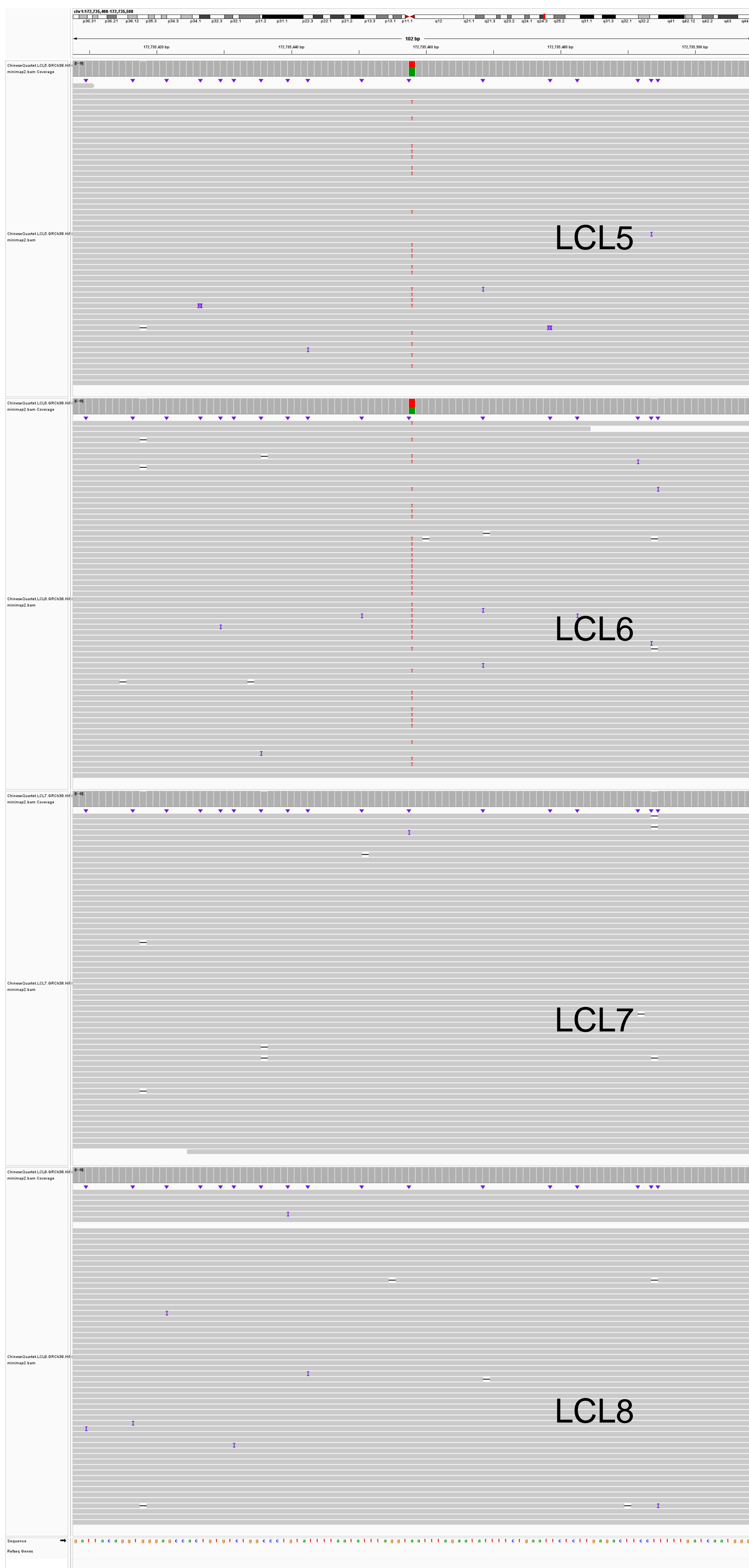


HiFi reads

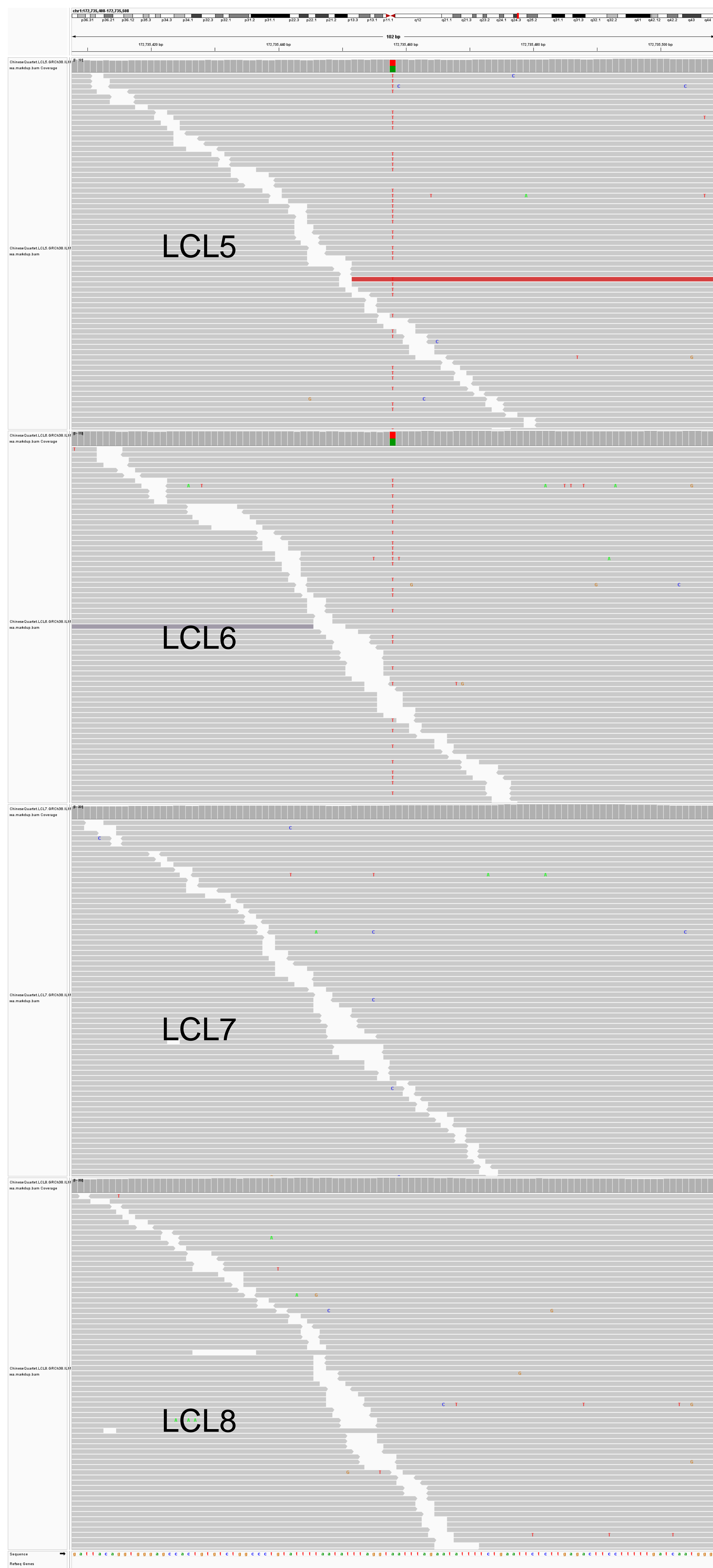


Illumina reads

# POS:chr1:172735458 Report DeNovo mutation by ILM



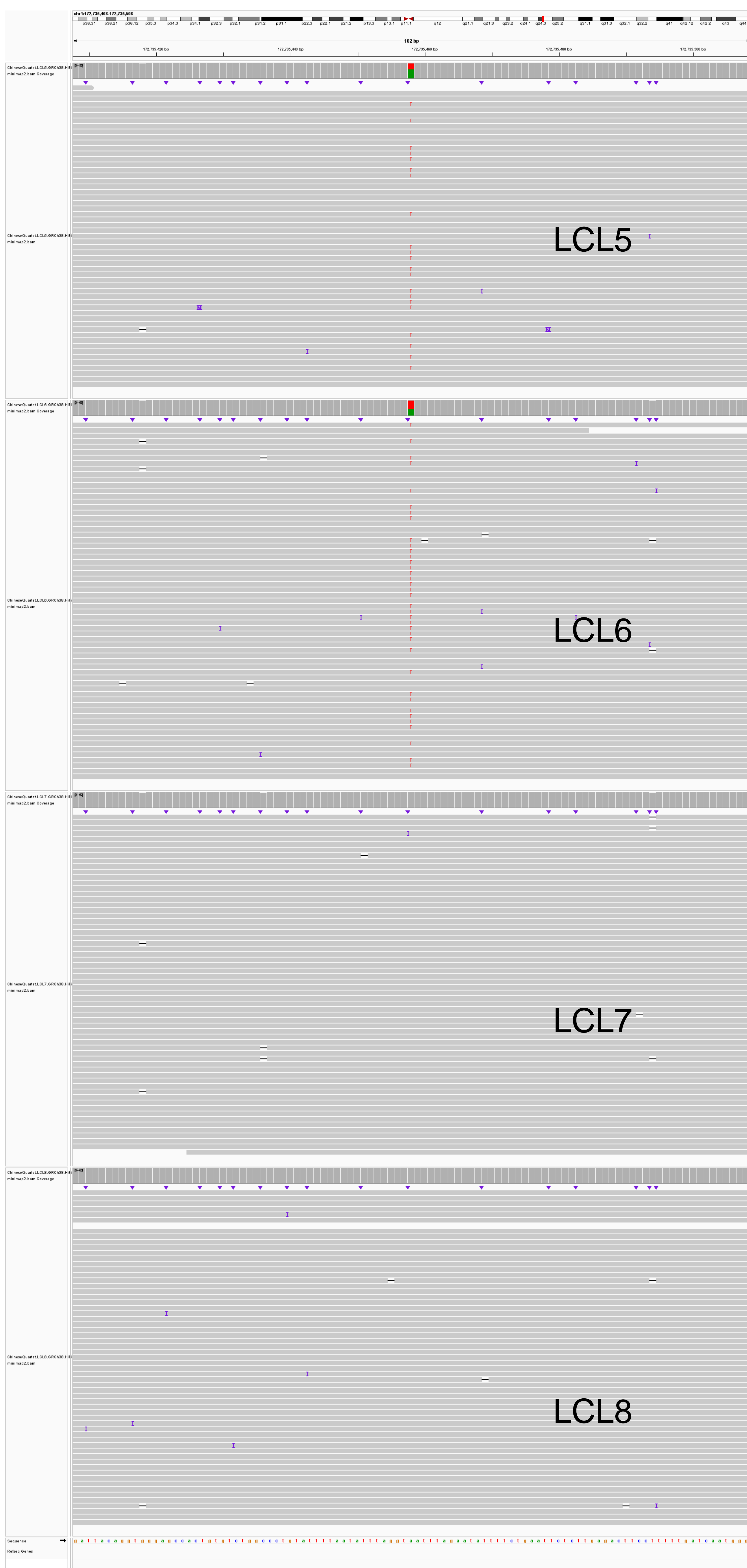
HiFi reads



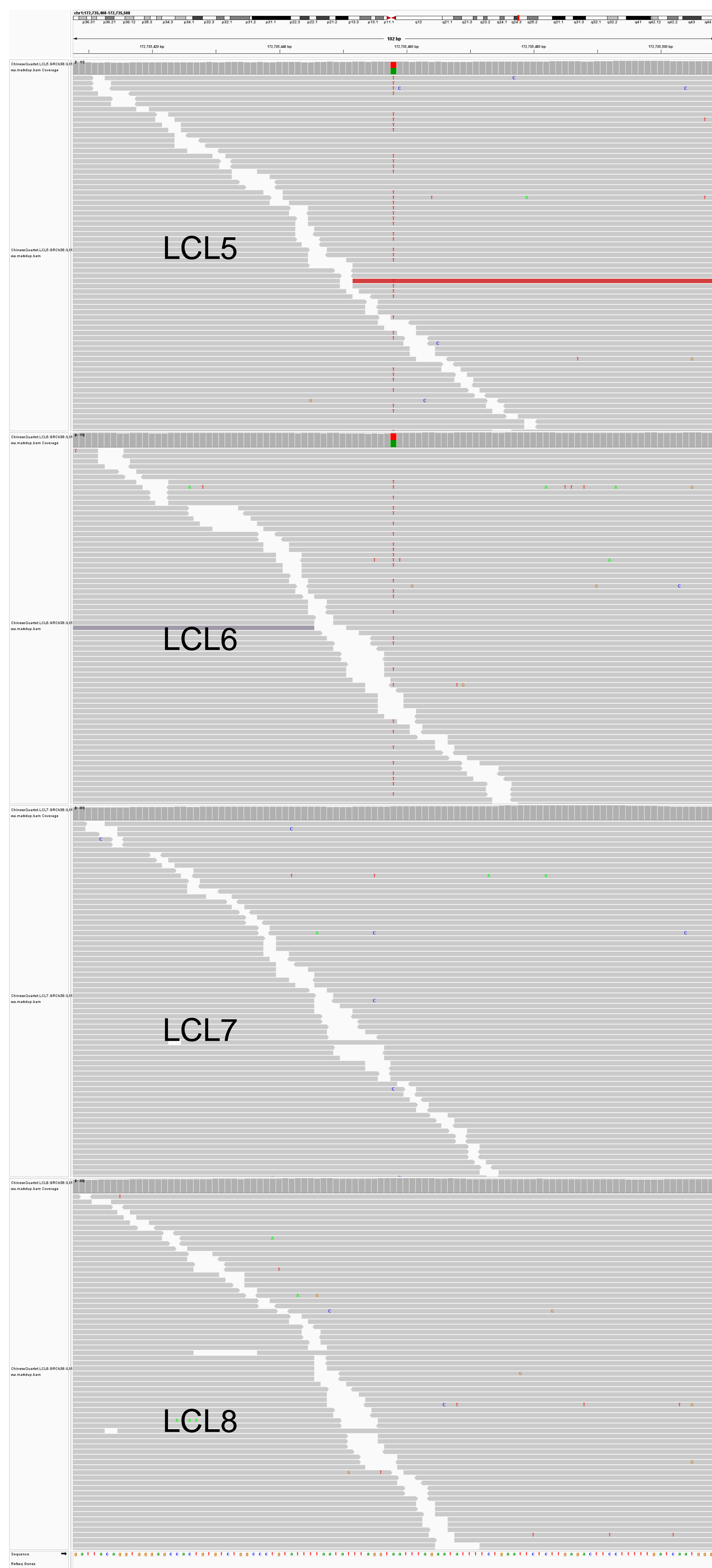
Illumina reads



# POS:chr1:172735458 Report DeNovo mutation by HiFi

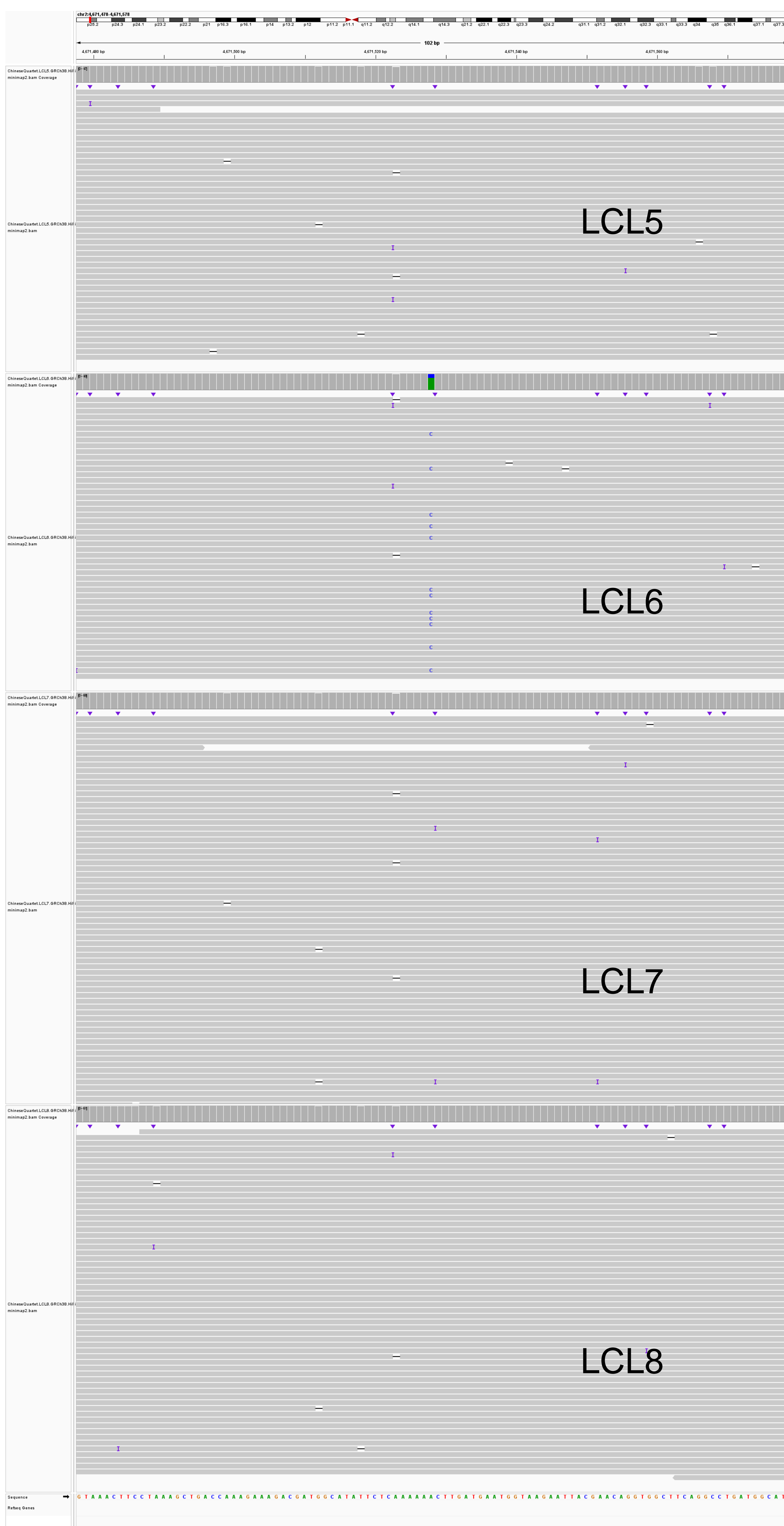


HiFi reads

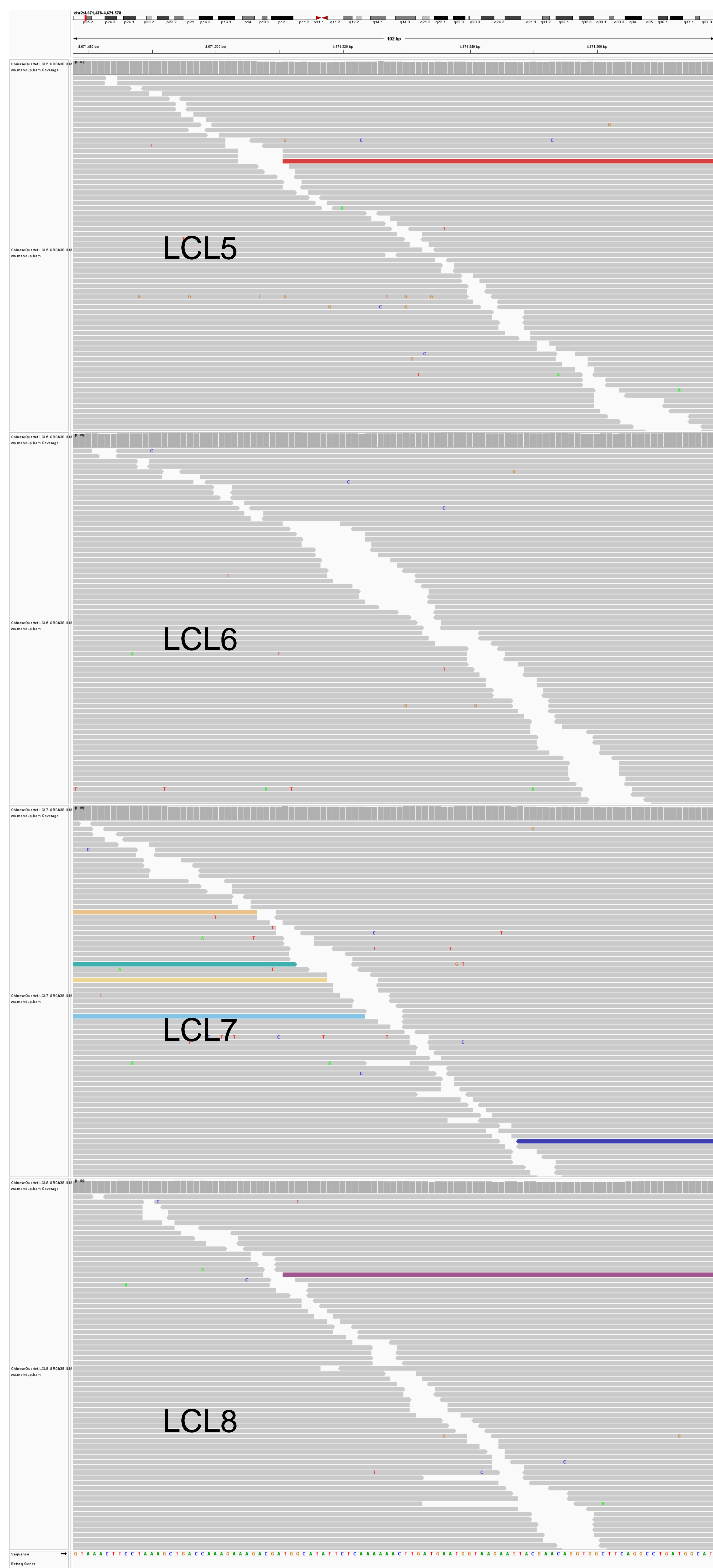


Illumina reads

# POS:chr2:4671528 Report Somatic mutation by HiFi

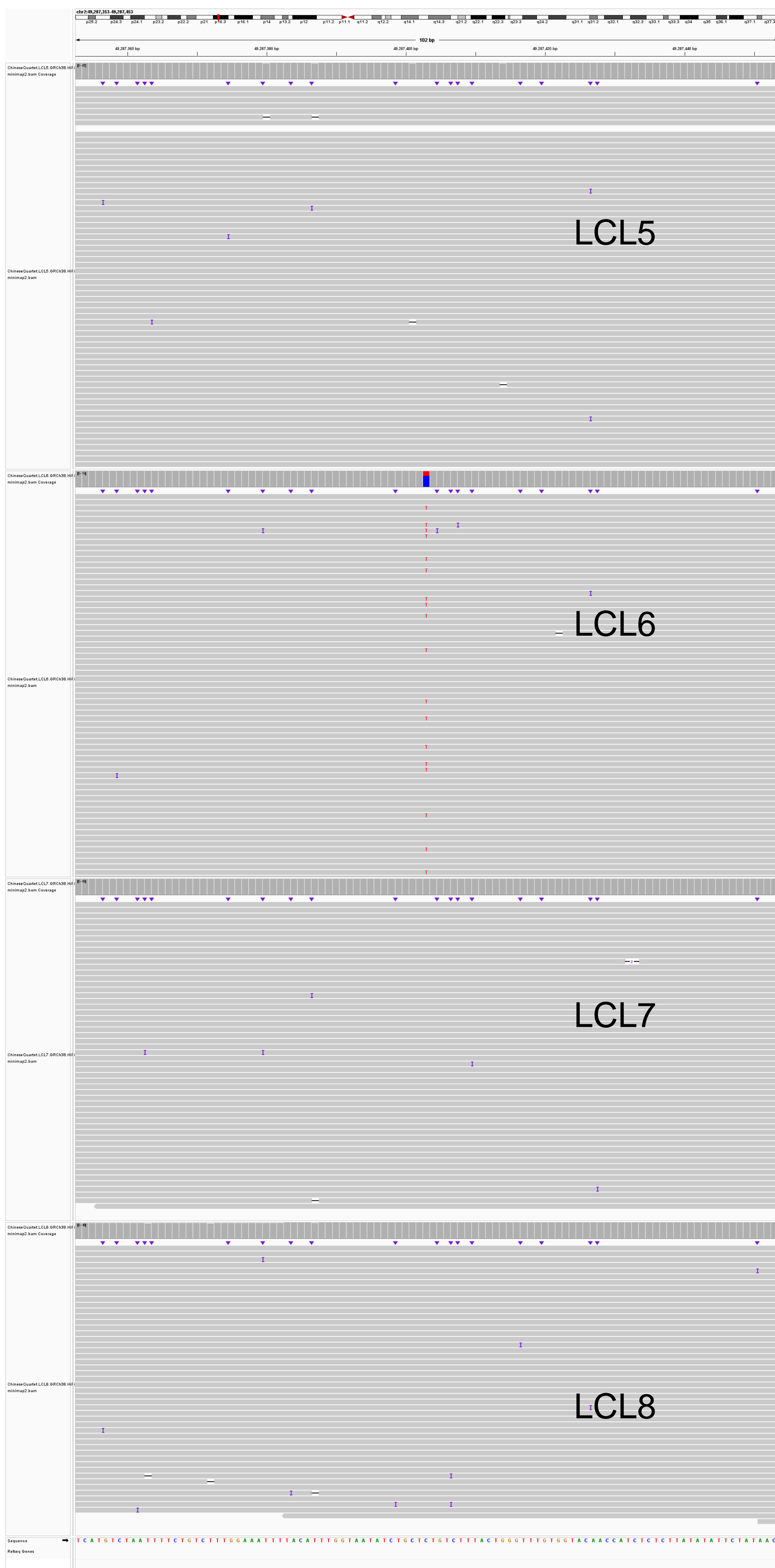


HiFi reads

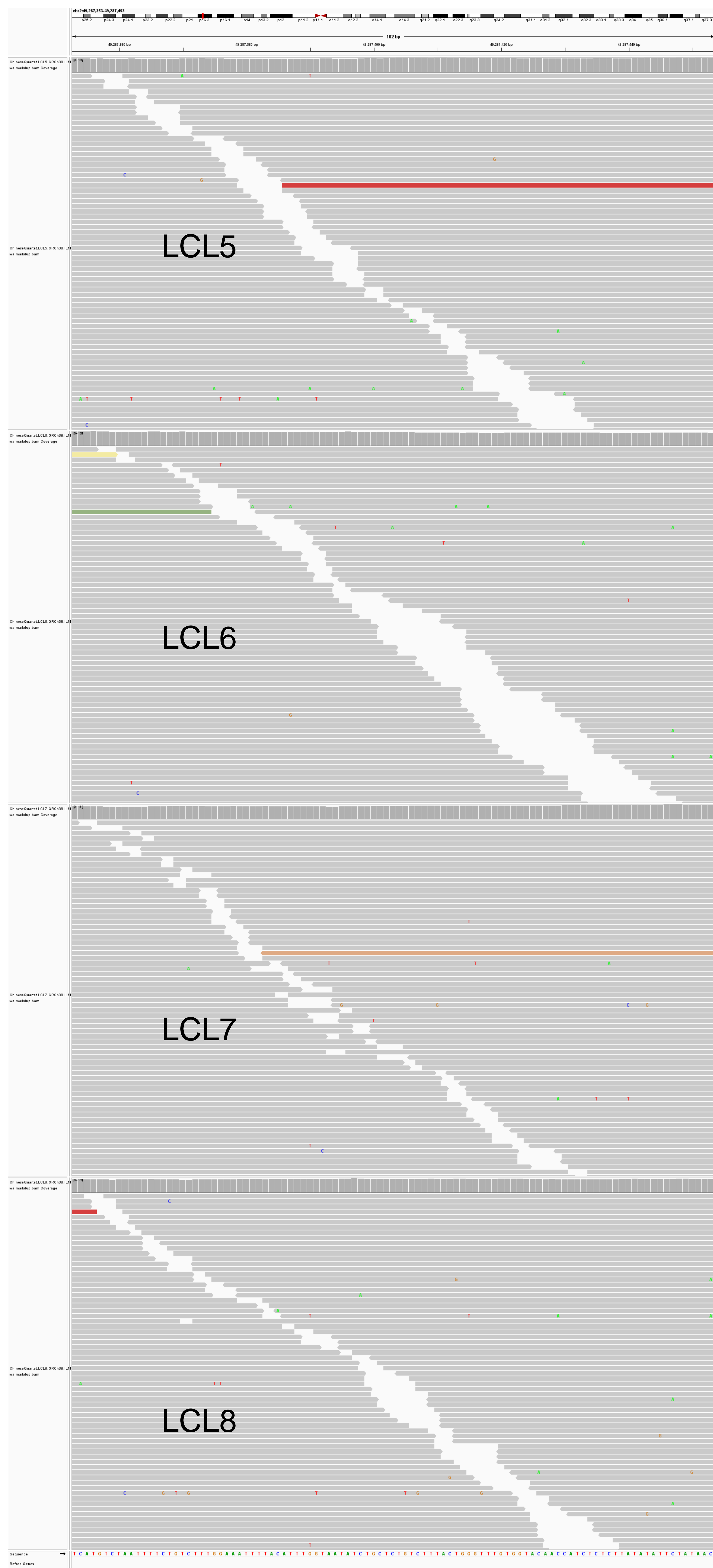


Illumina reads

# POS:chr2:49287403 Report Somatic mutation by HiFi

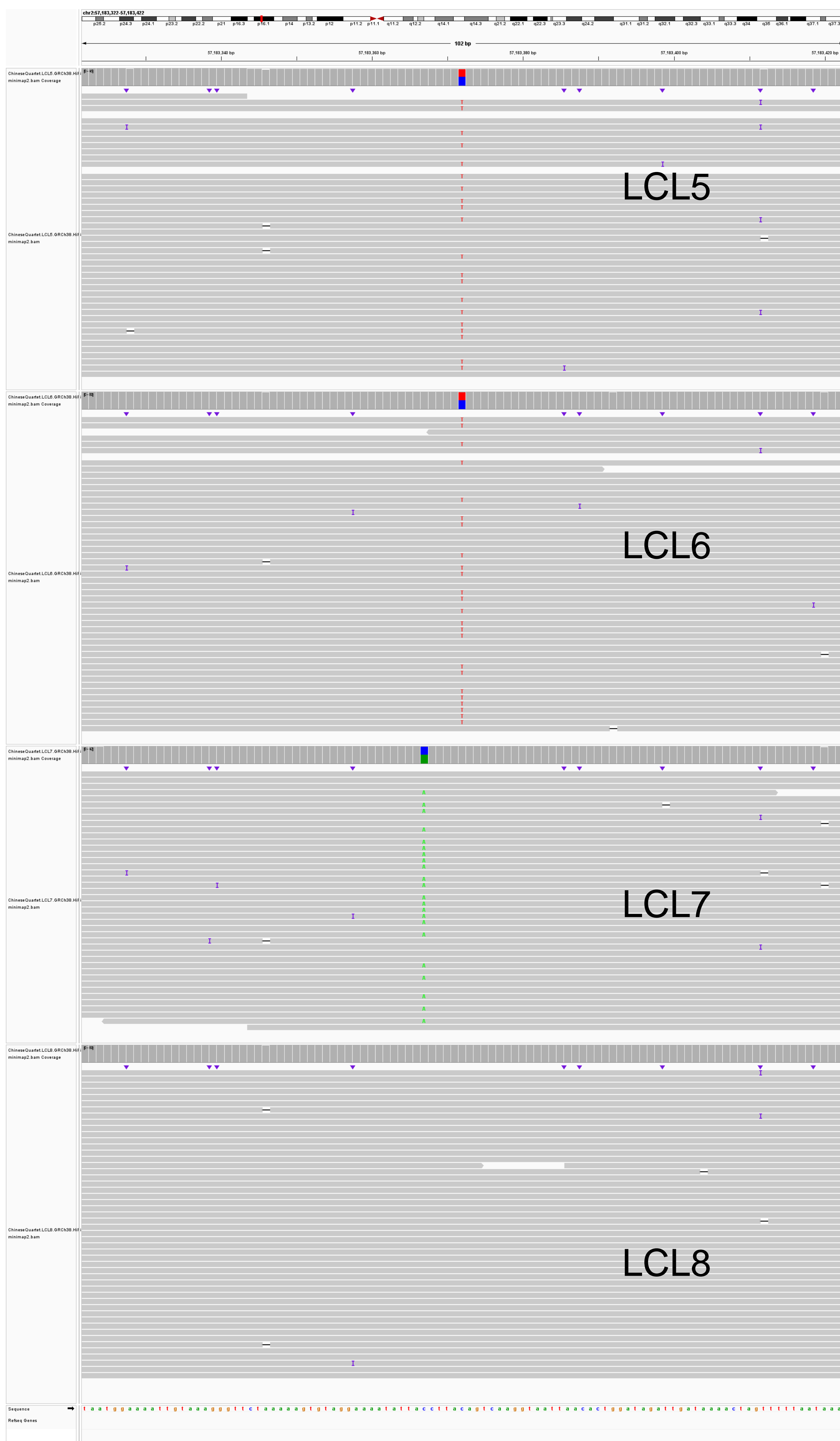


HiFi reads

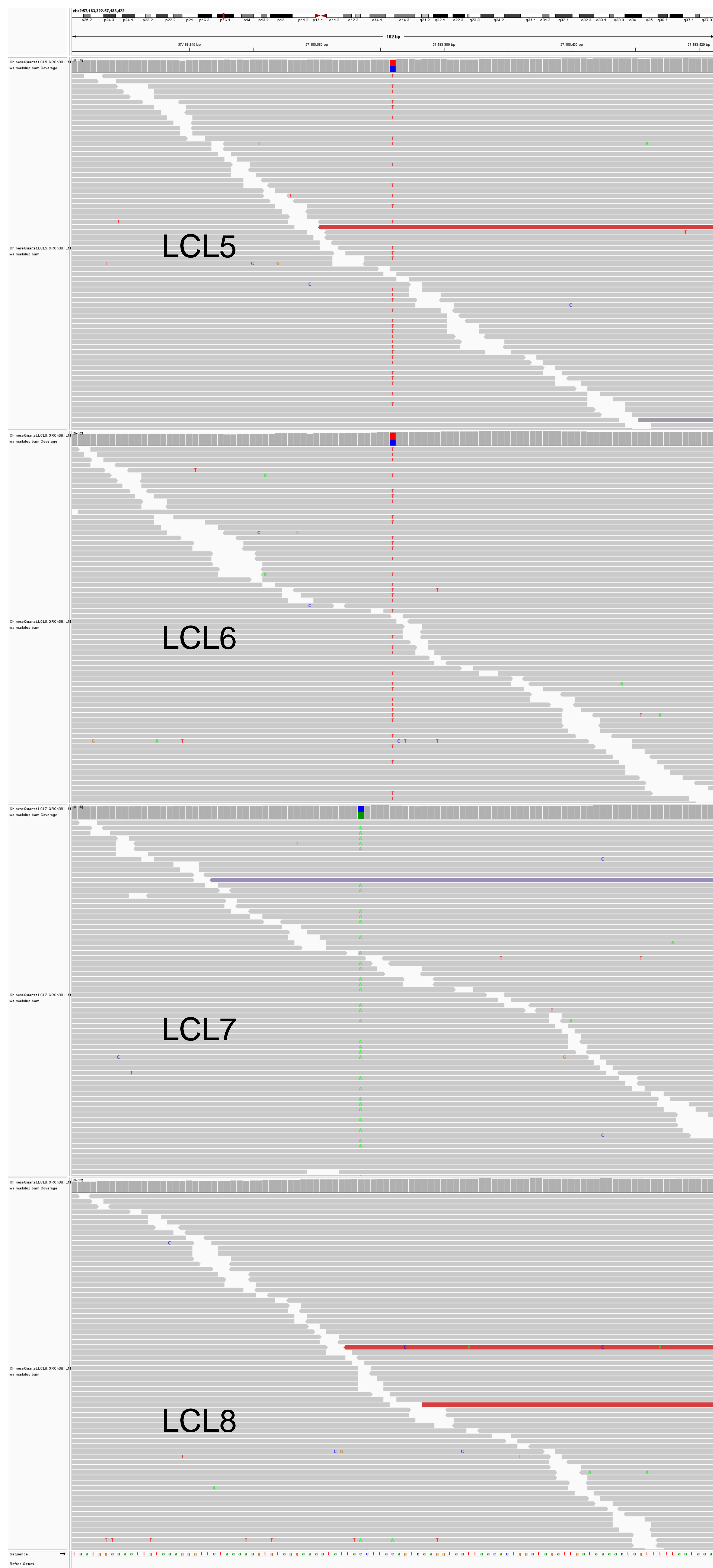


Illumina reads

# POS:chr2:57183372 Report DeNovo mutation by ILM



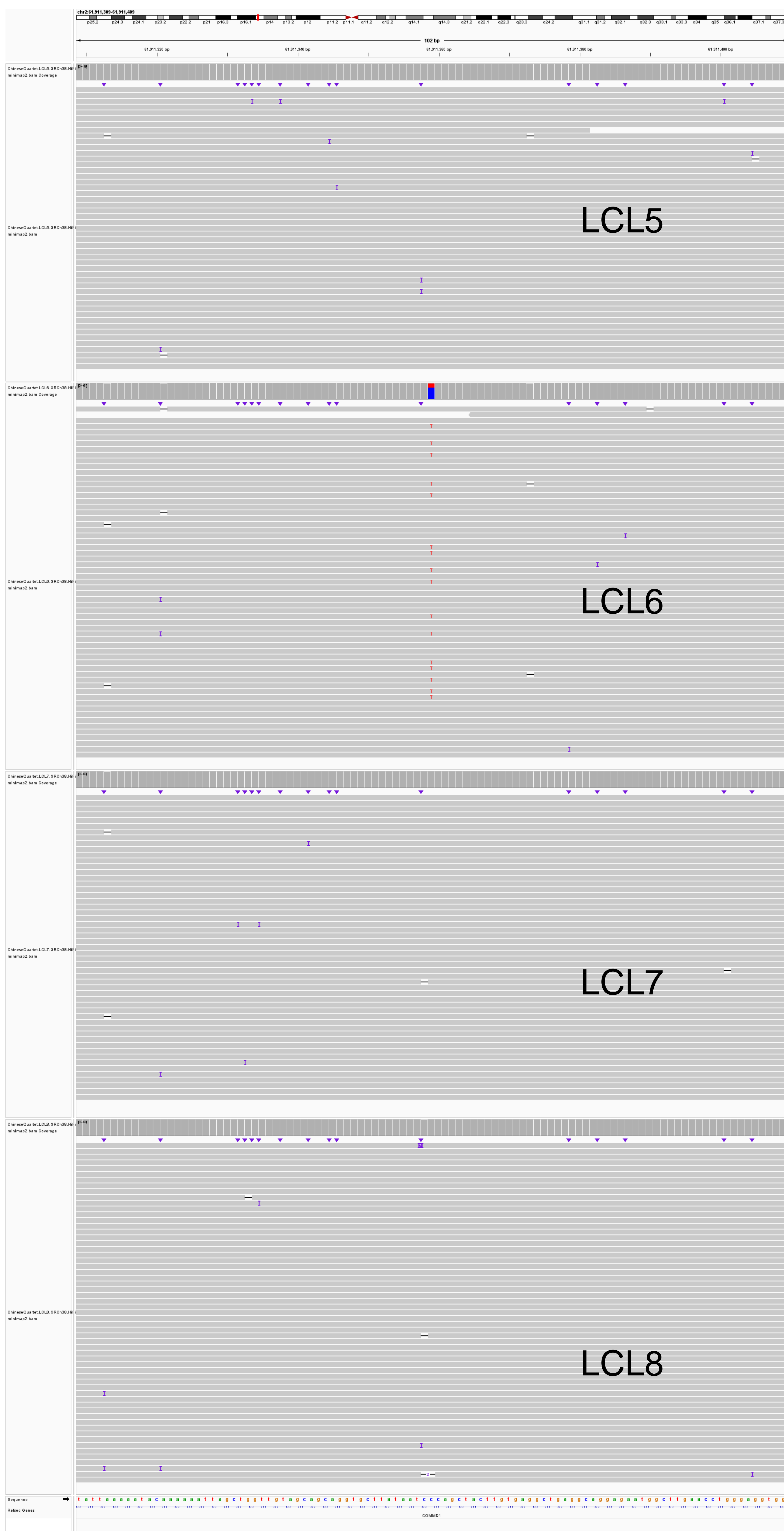
HiFi reads



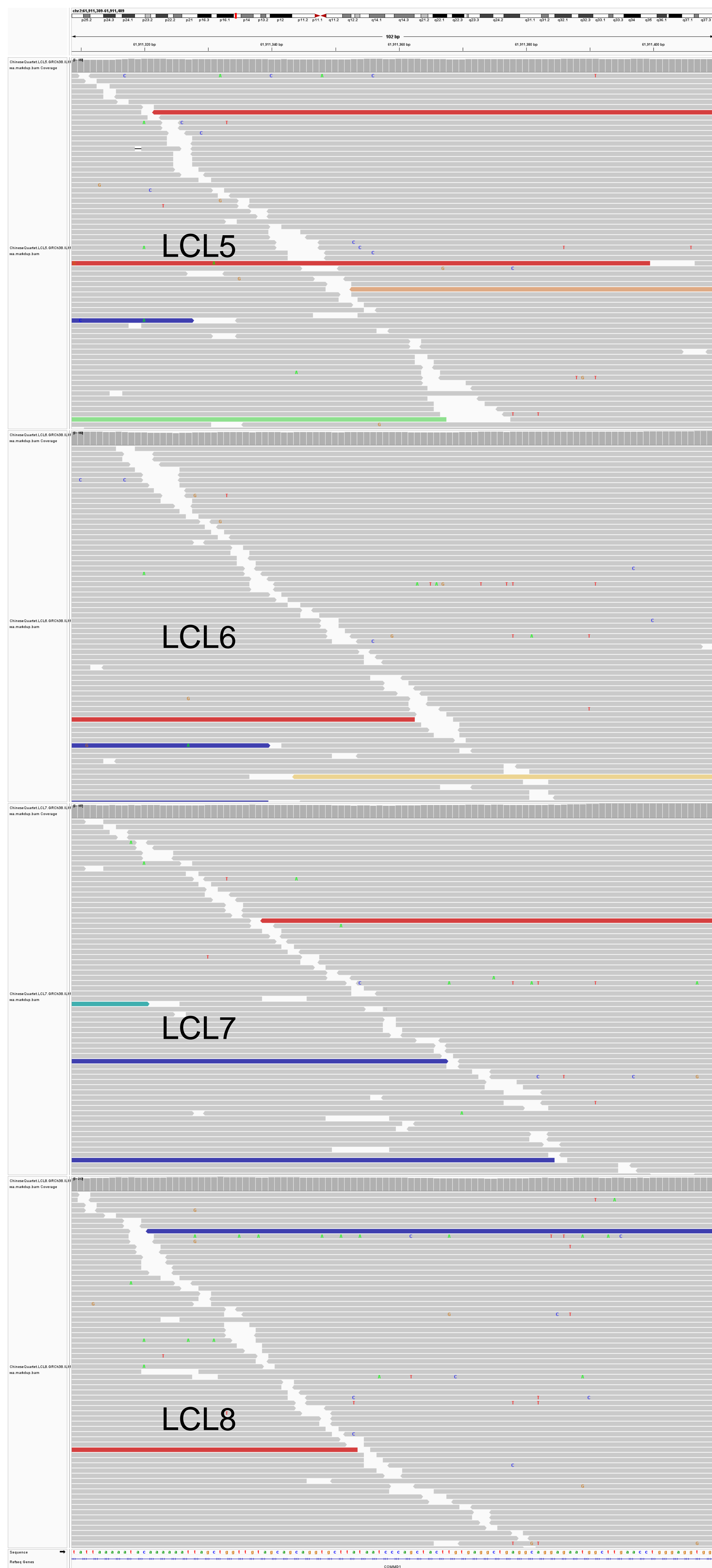
Illumina reads



# POS:chr2:61911359 Report Somatic mutation by HiFi



HiFi reads

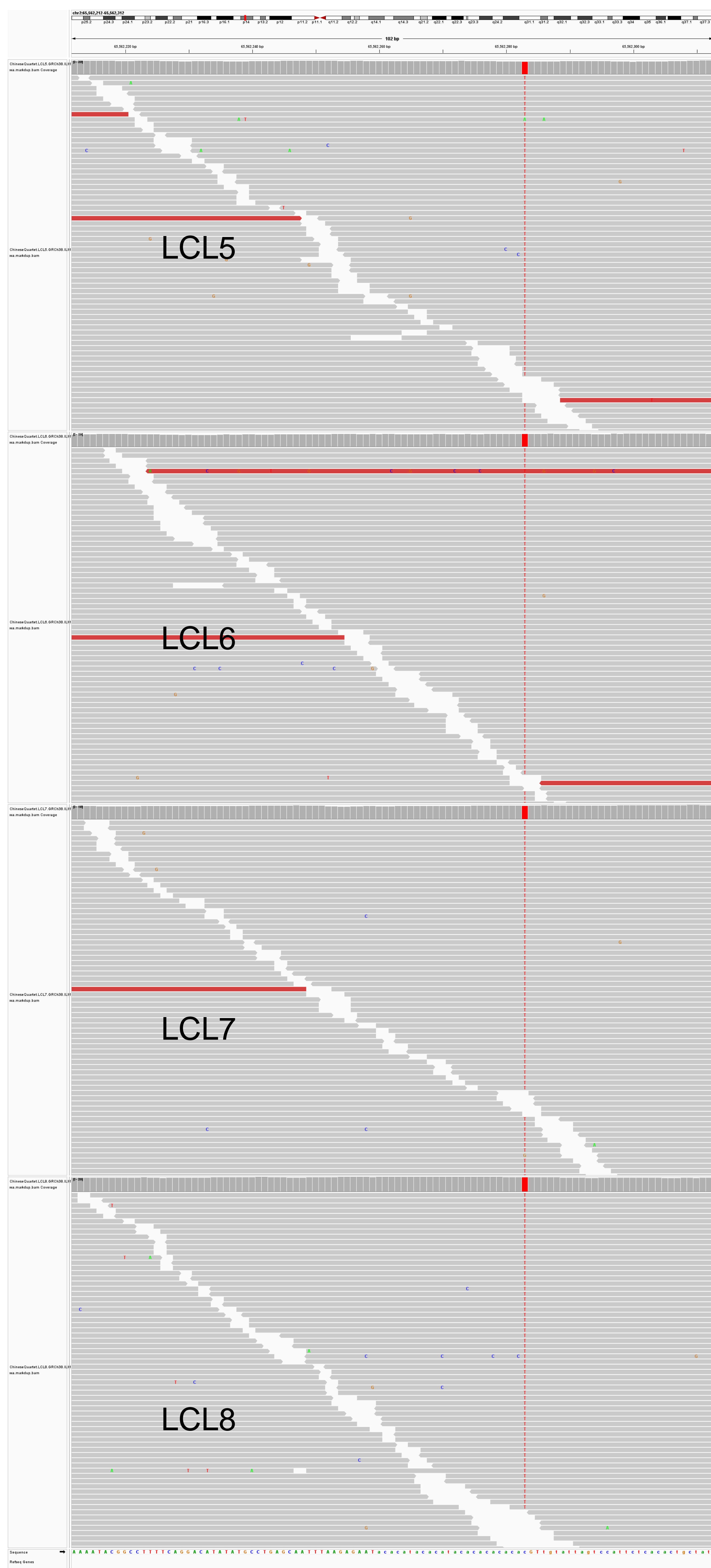


Illumina reads

# POS:chr2:65562262 Report Somatic mutation by HiFi

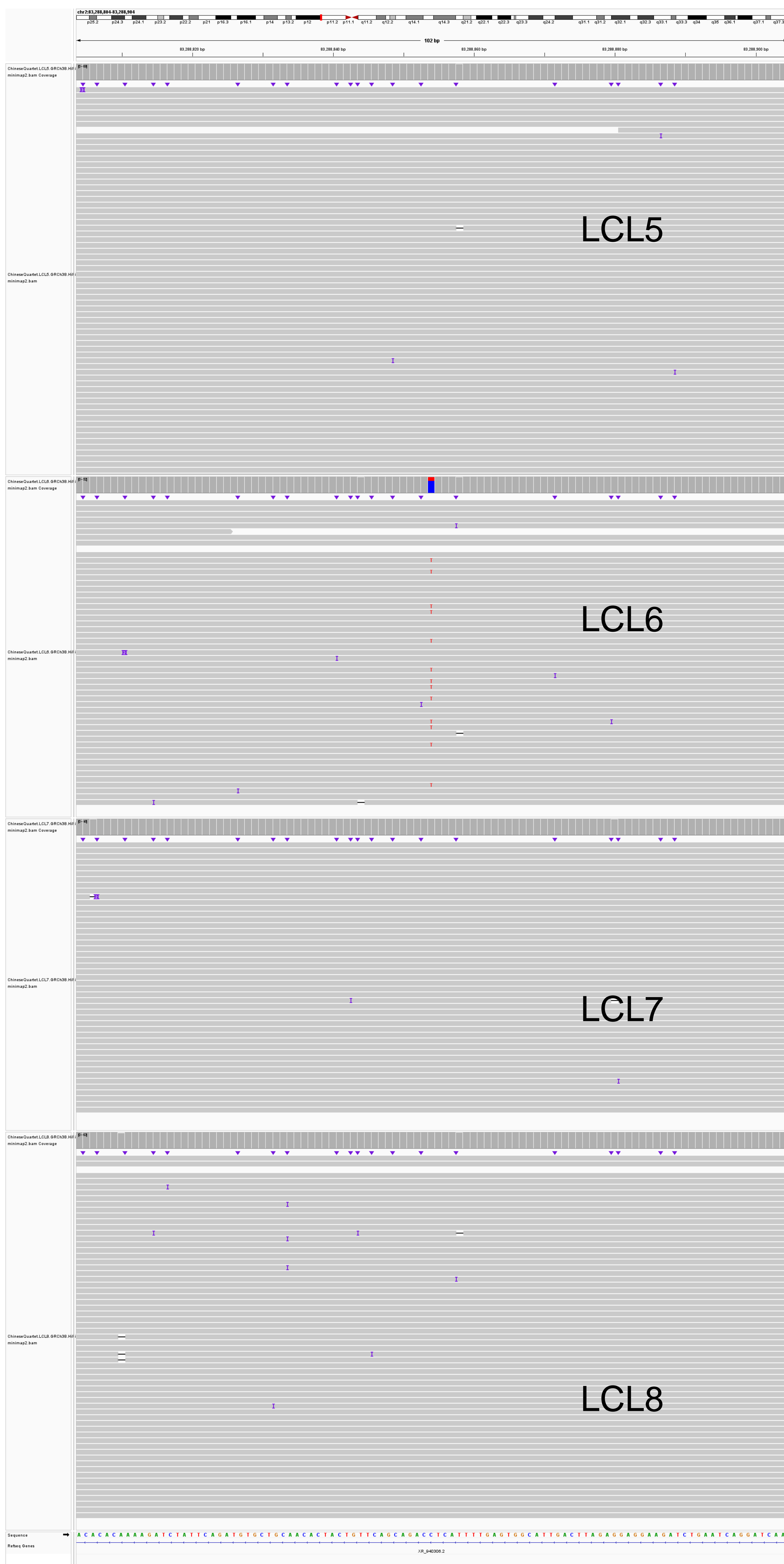


HiFi reads

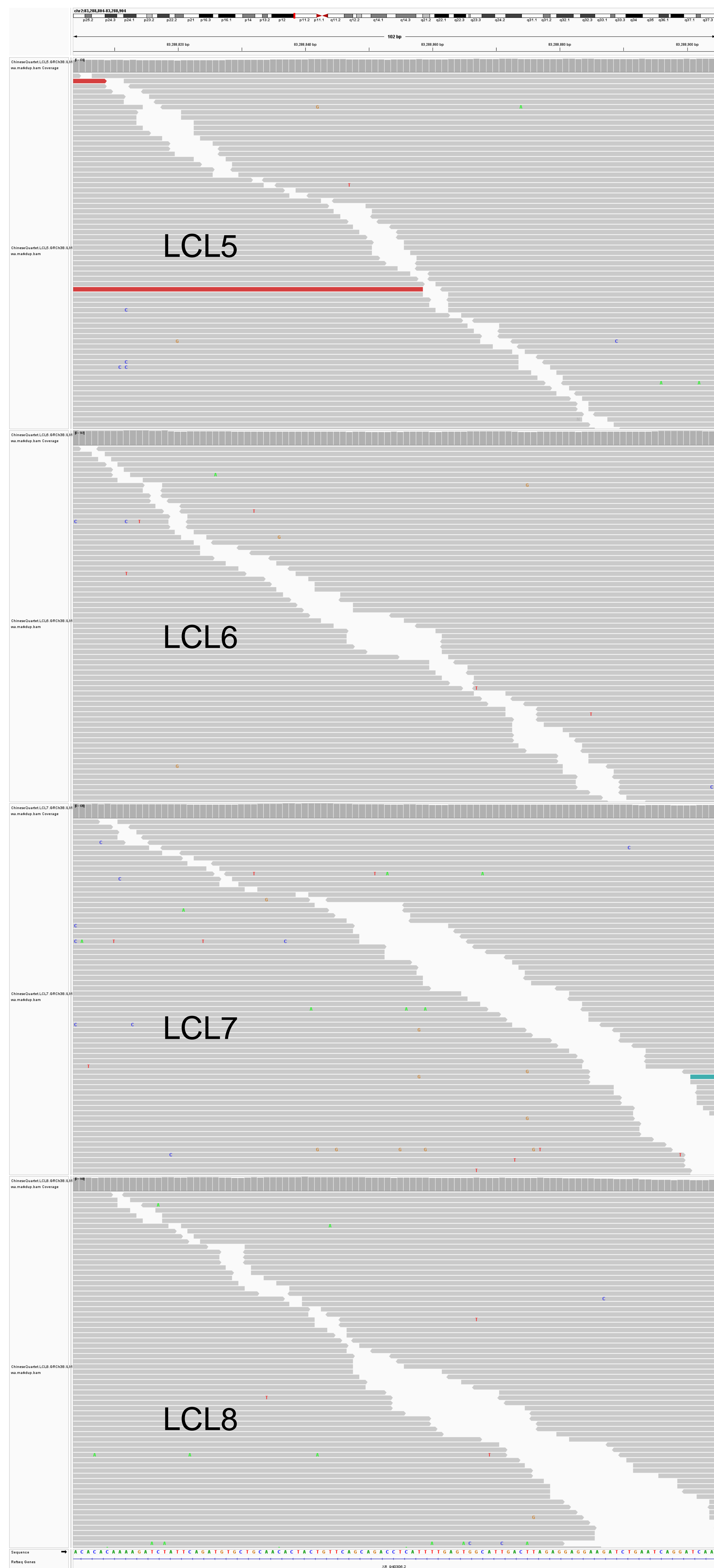


Illumina reads

# POS:chr2:83288854 Report Somatic mutation by HiFi



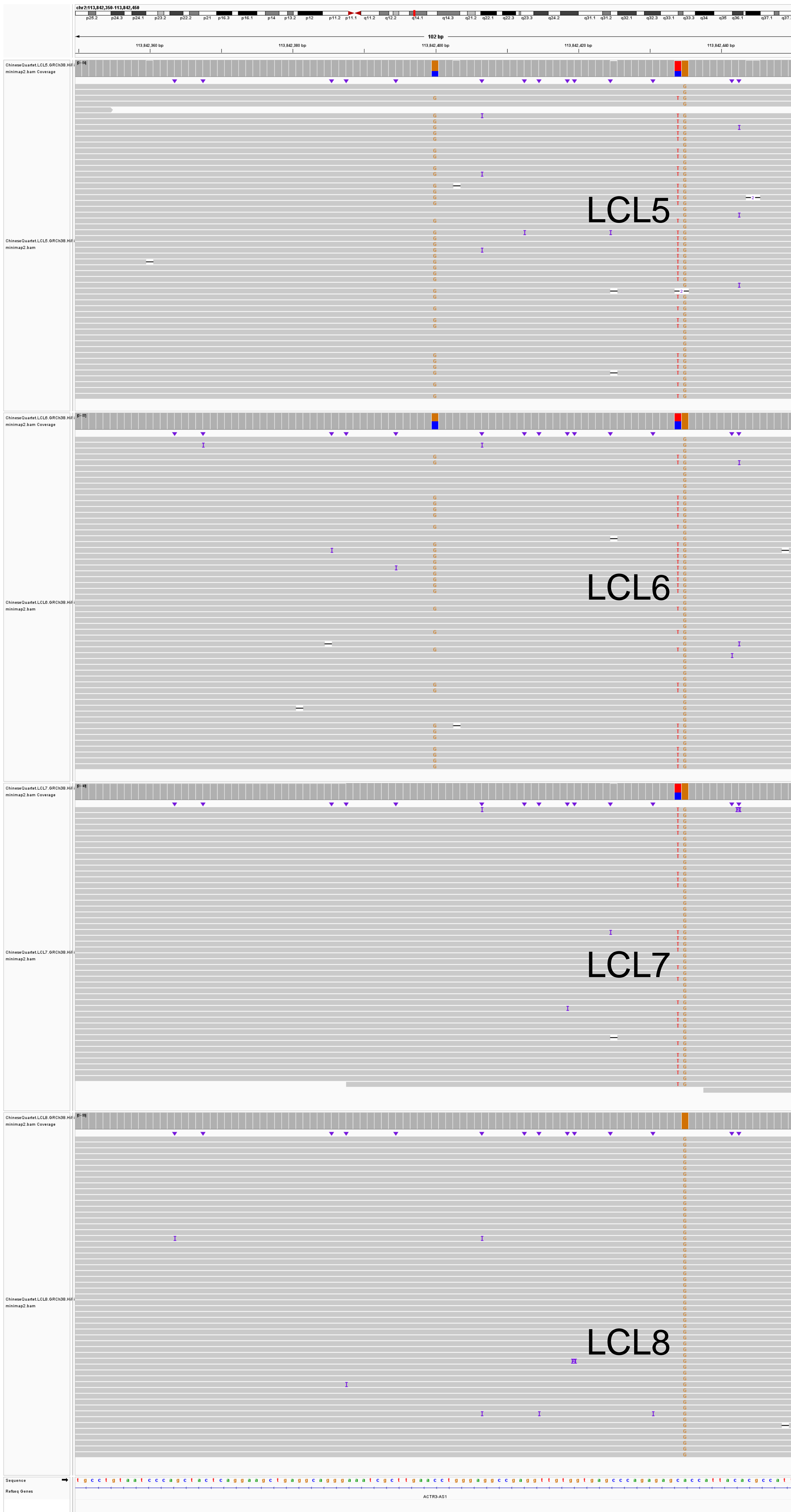
HiFi reads



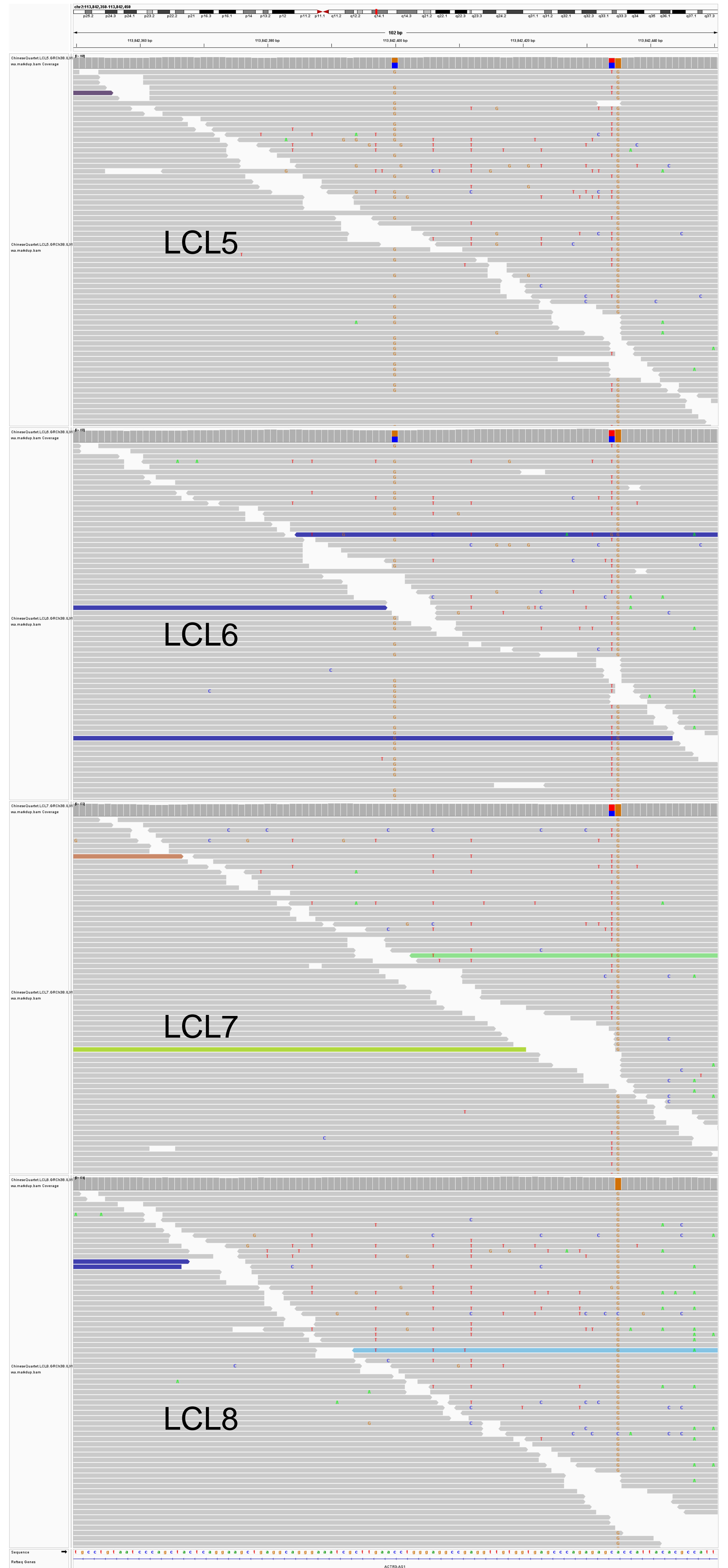
Illumina reads



# POS:chr2:113842400 Report DeNovo mutation by ILM

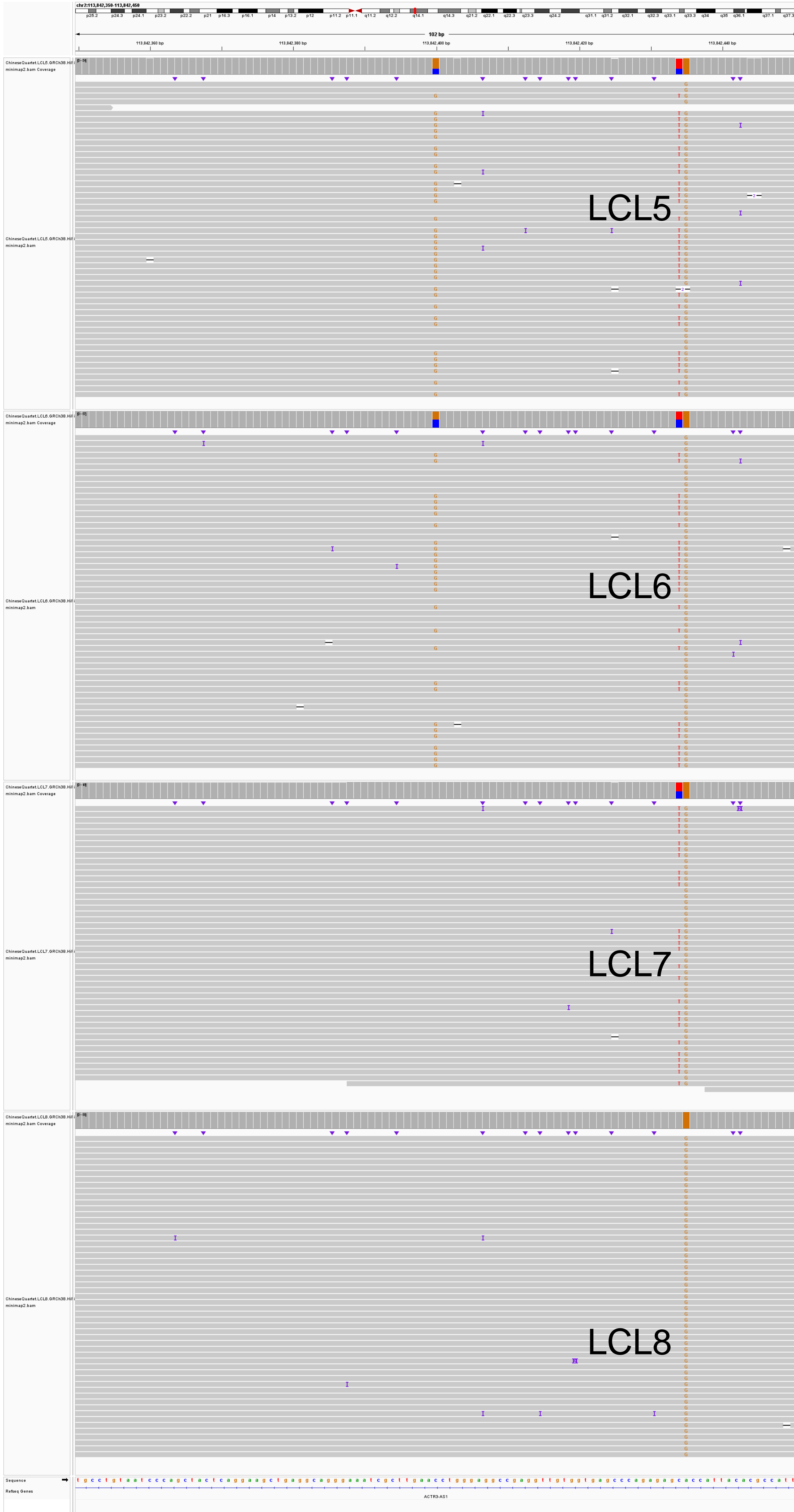


HiFi reads

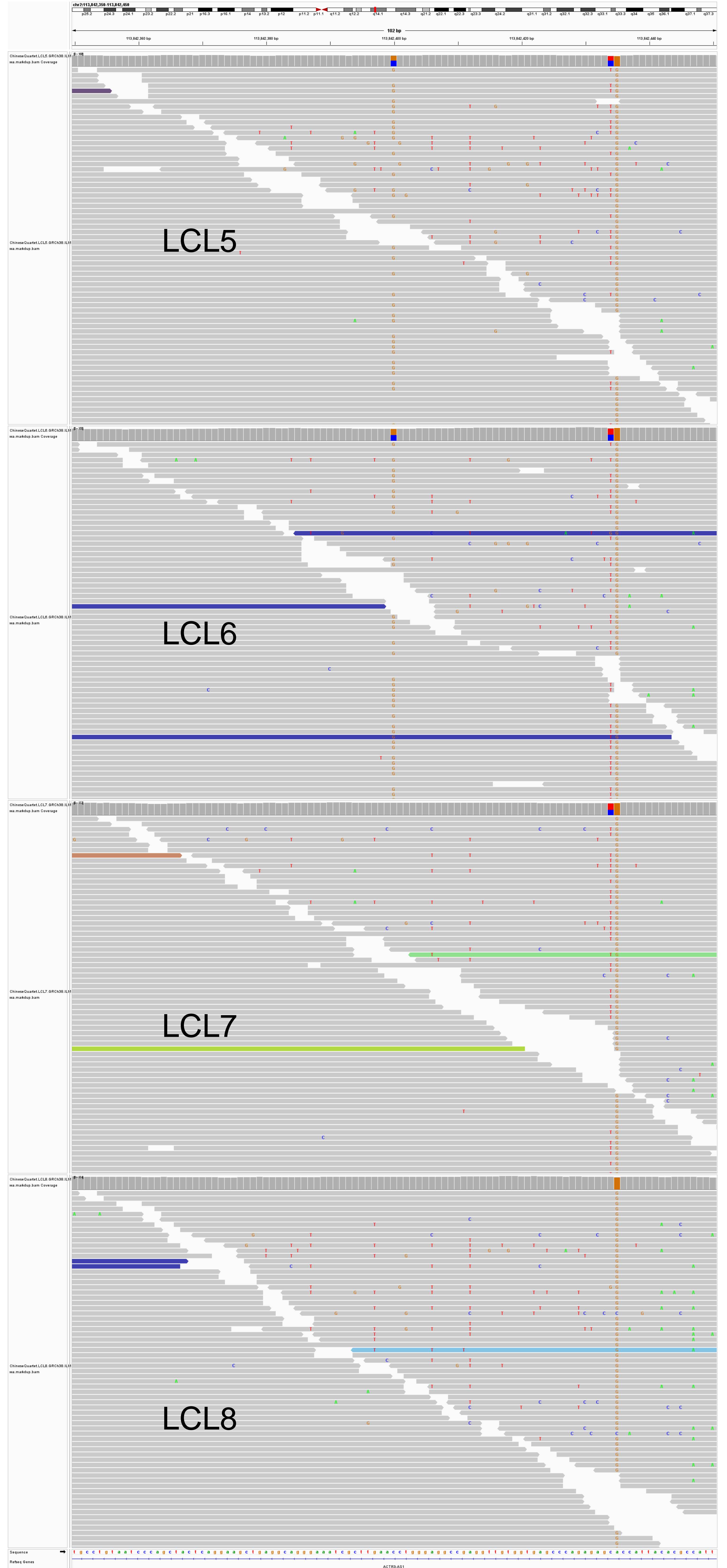


Illumina reads

# POS:chr2:113842400 Report DeNovo mutation by HiFi

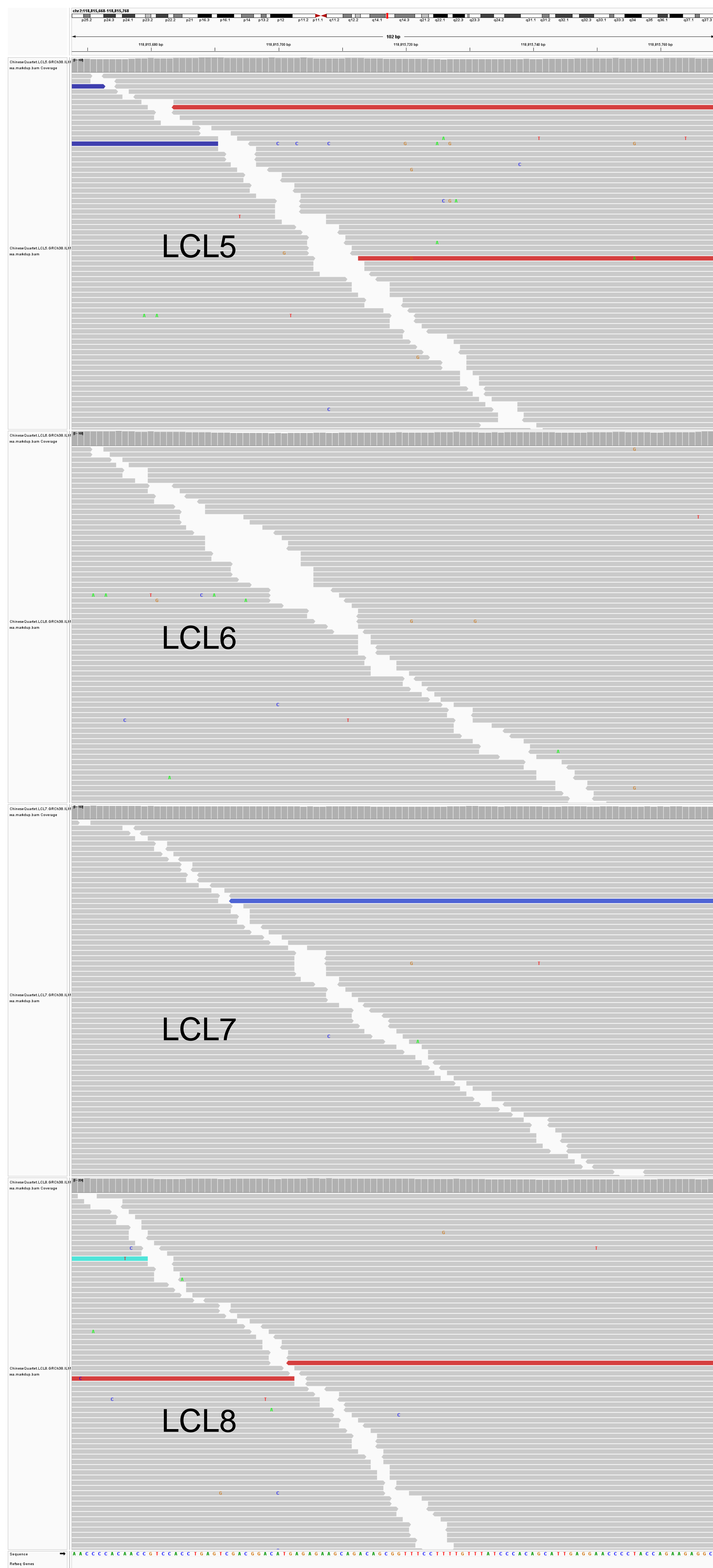
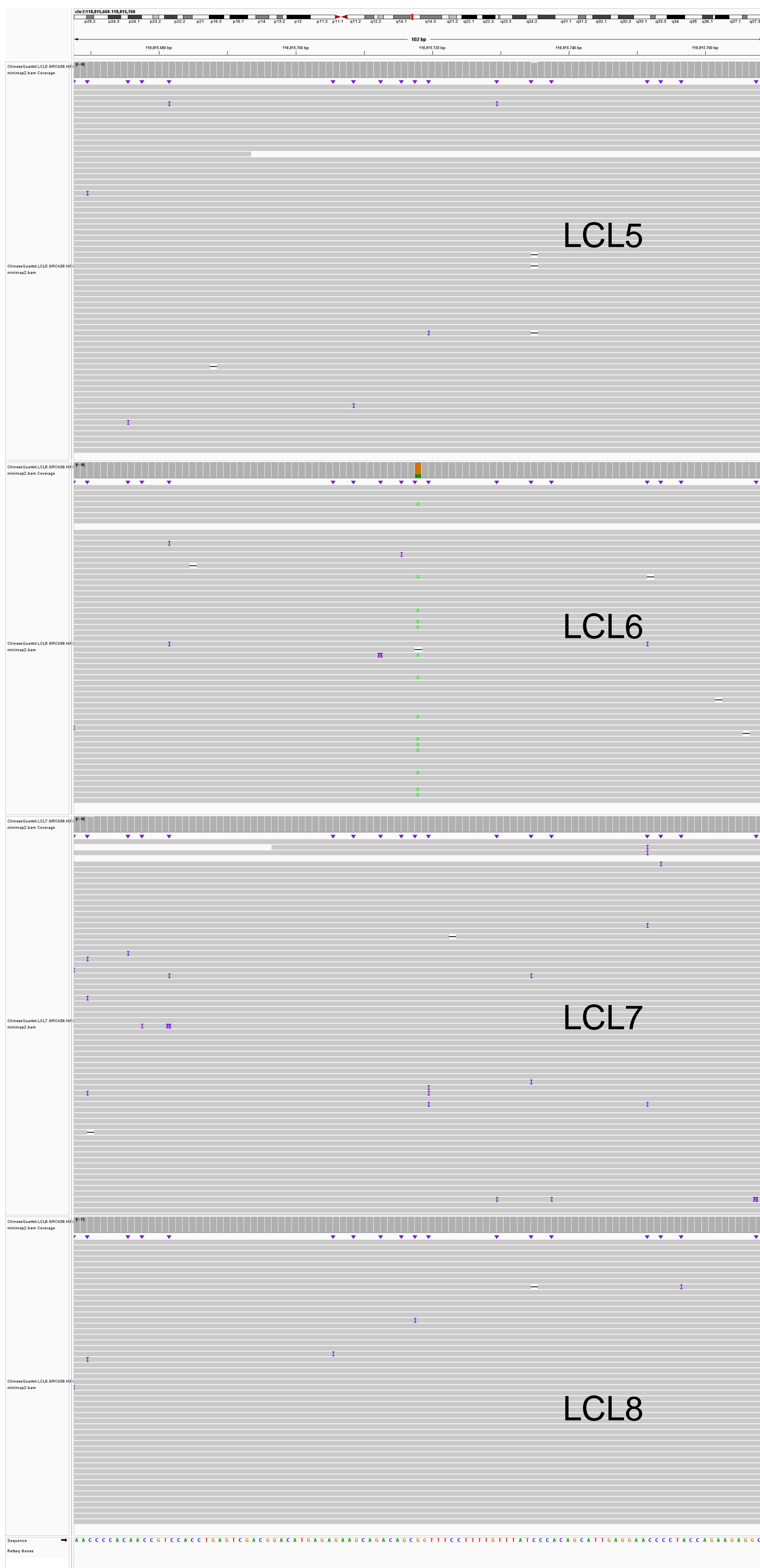


HiFi reads



Illumina reads

# POS:chr2:118815718 Report Somatic mutation by HiFi

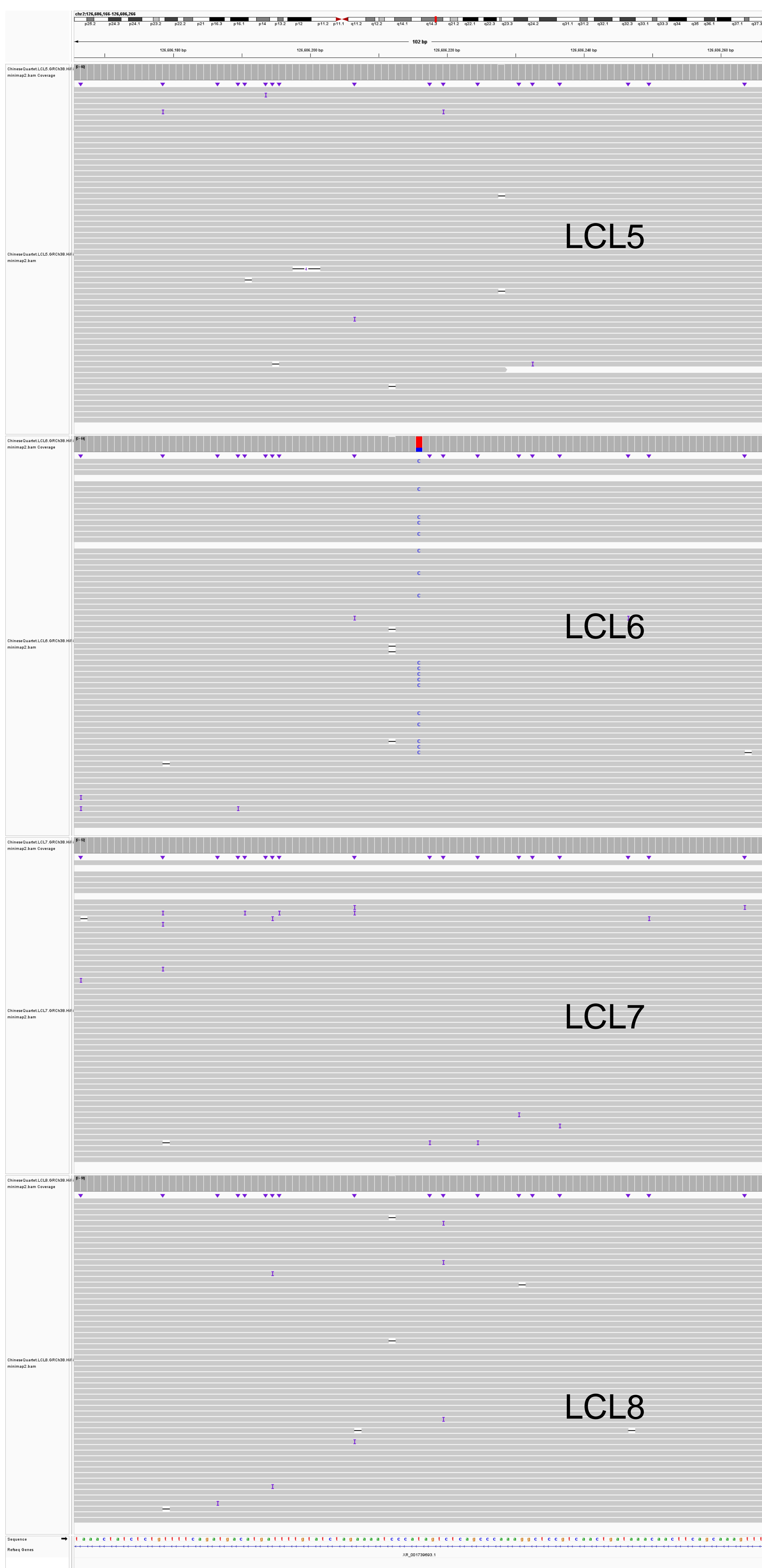


HiFi reads

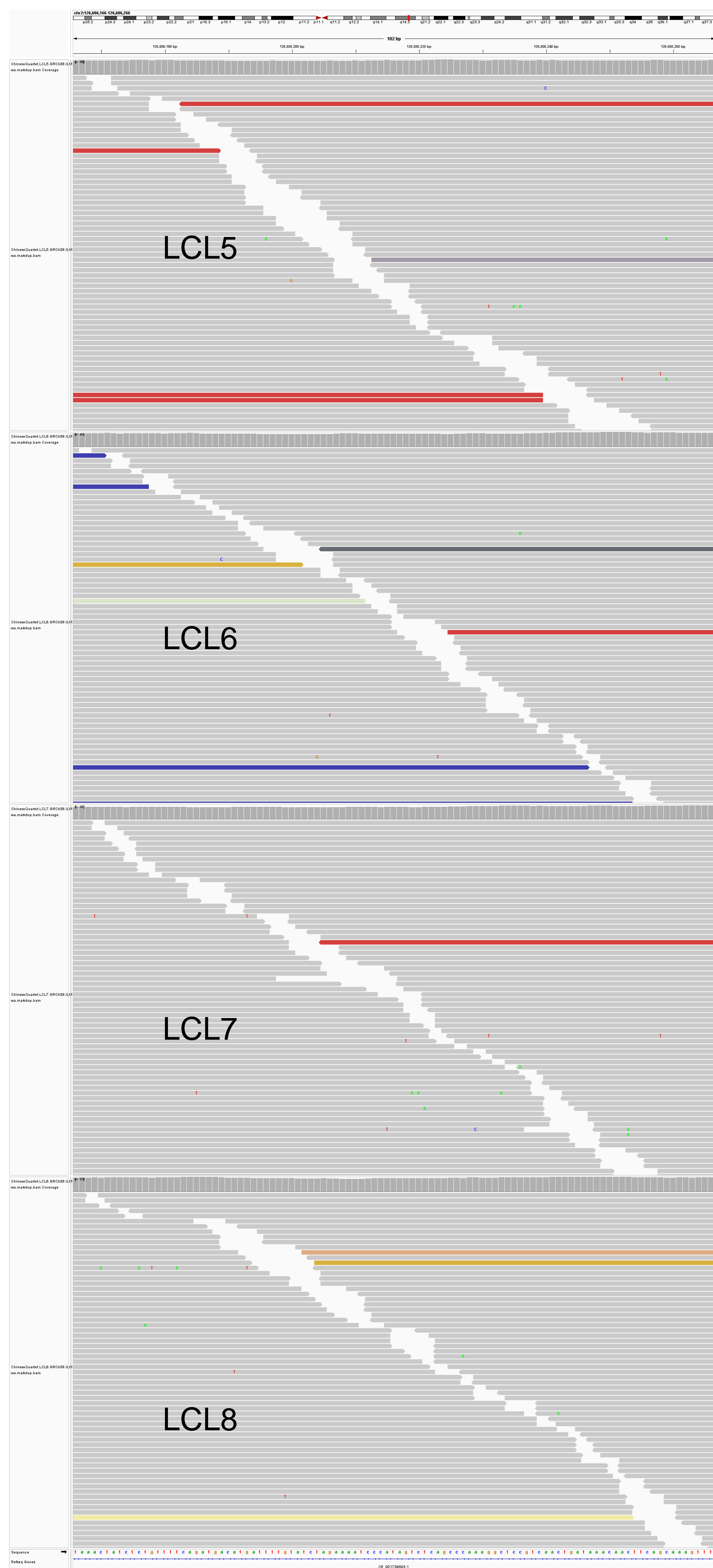
Illumina reads



# POS:chr2:126606216 Report Somatic mutation by HiFi

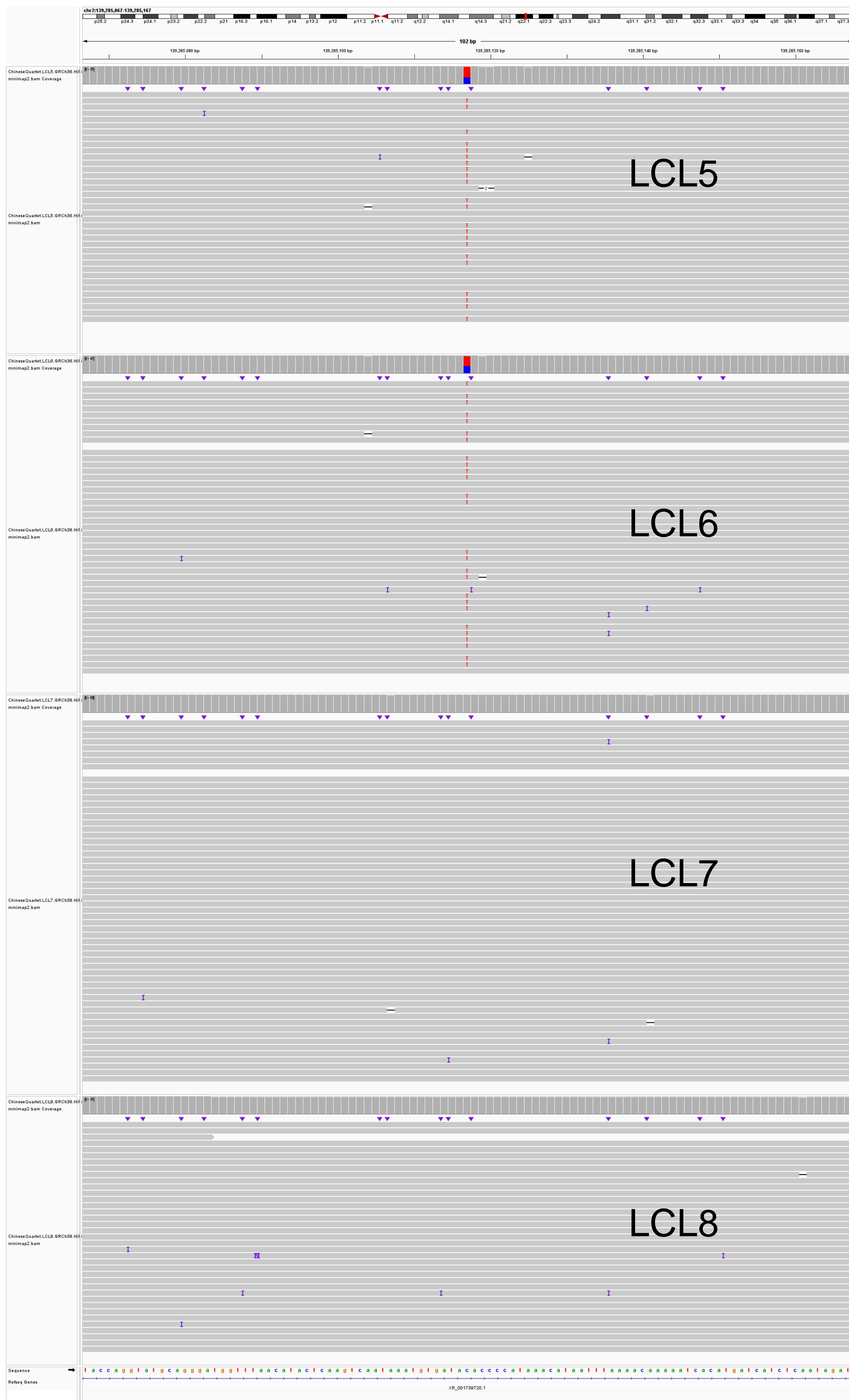


HiFi reads

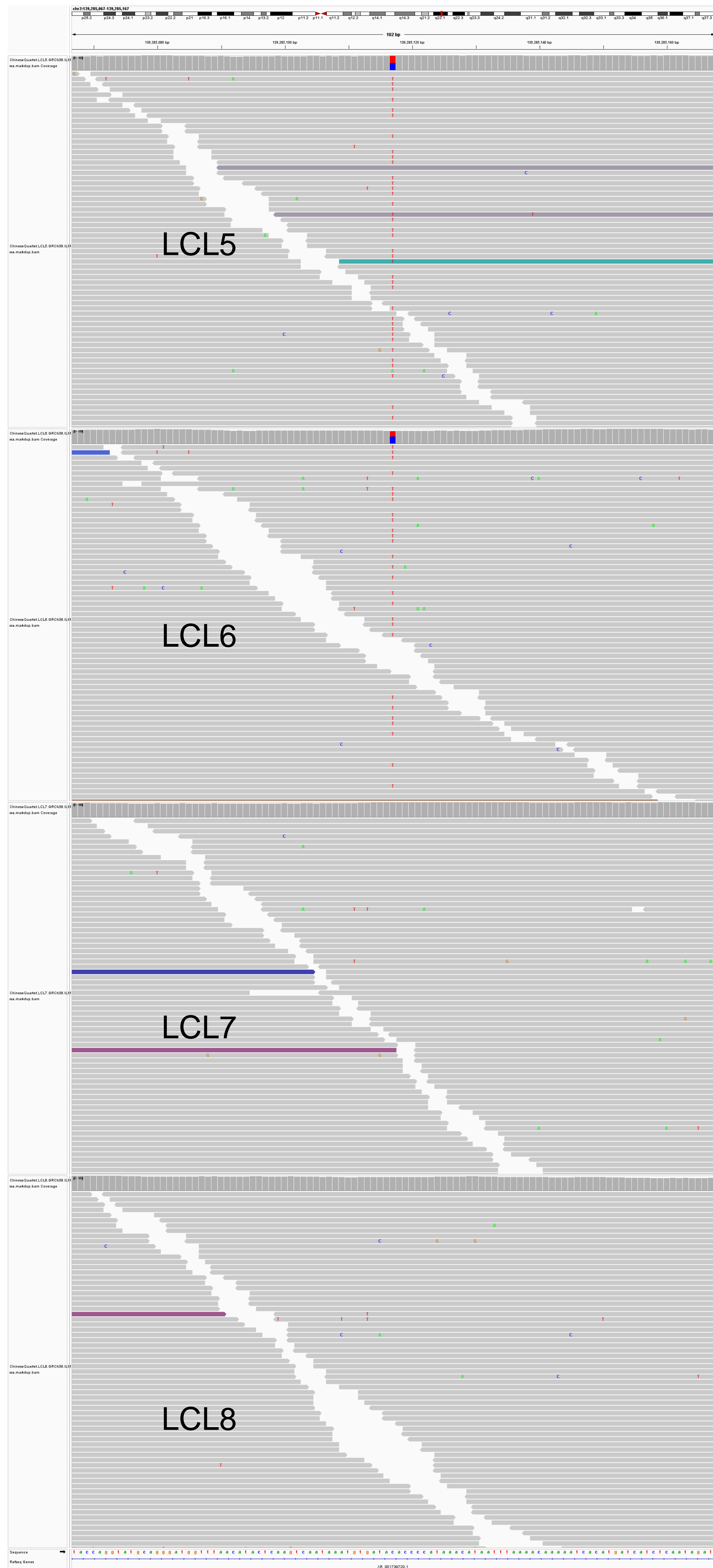


Illumina reads

# POS:chr2:139285117 Report DeNovo mutation by ILM

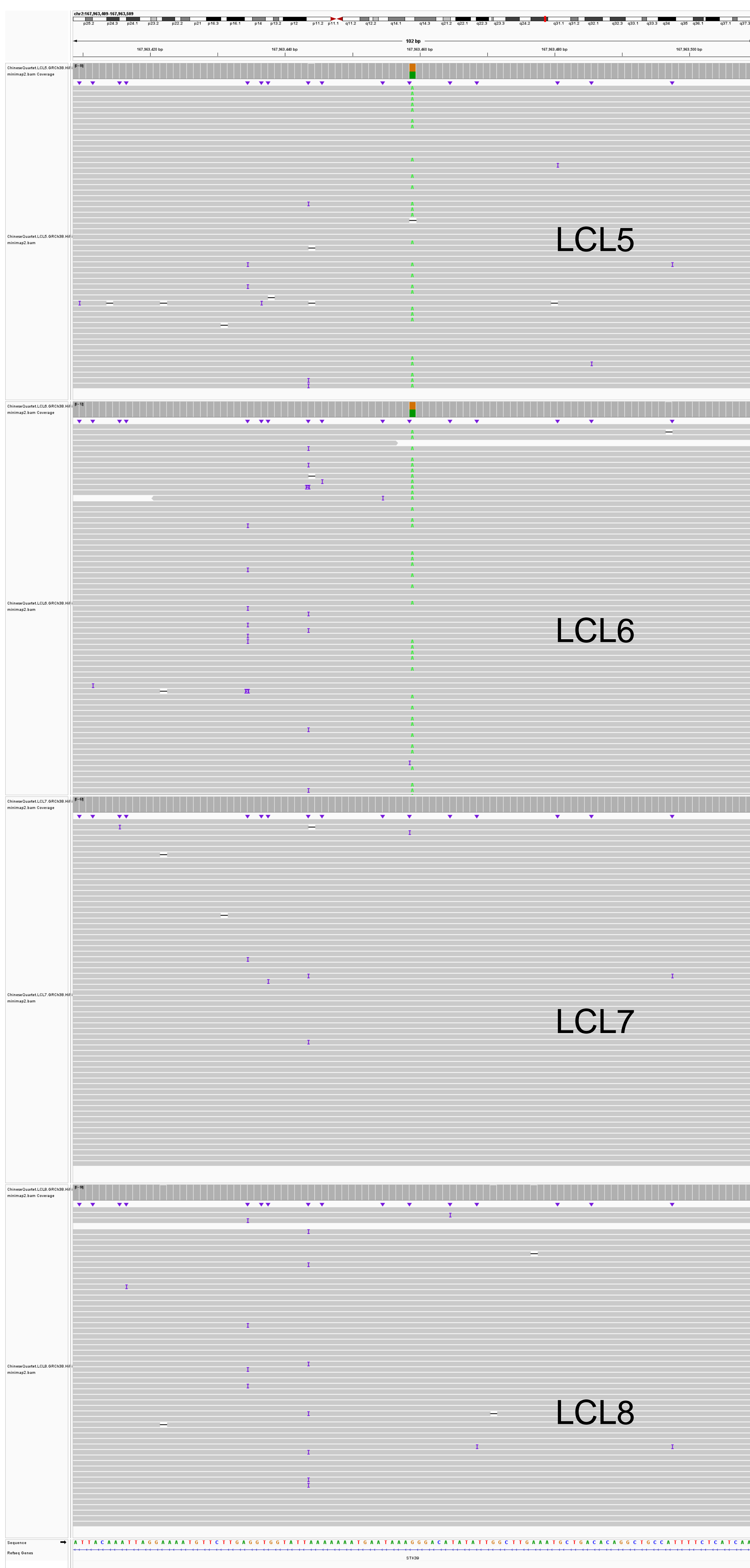


HiFi reads

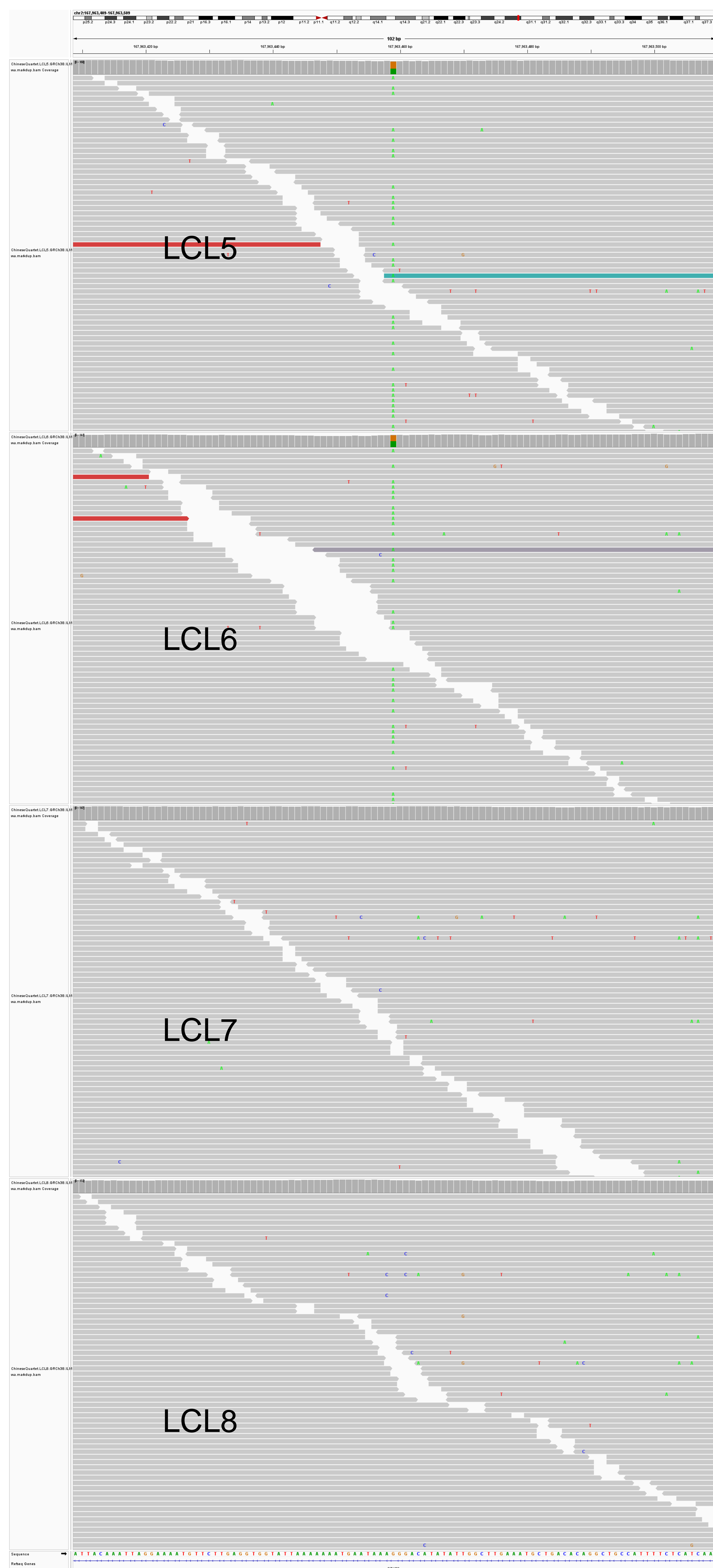


Illumina reads

# POS:chr2:167963459 Report DeNovo mutation by ILM

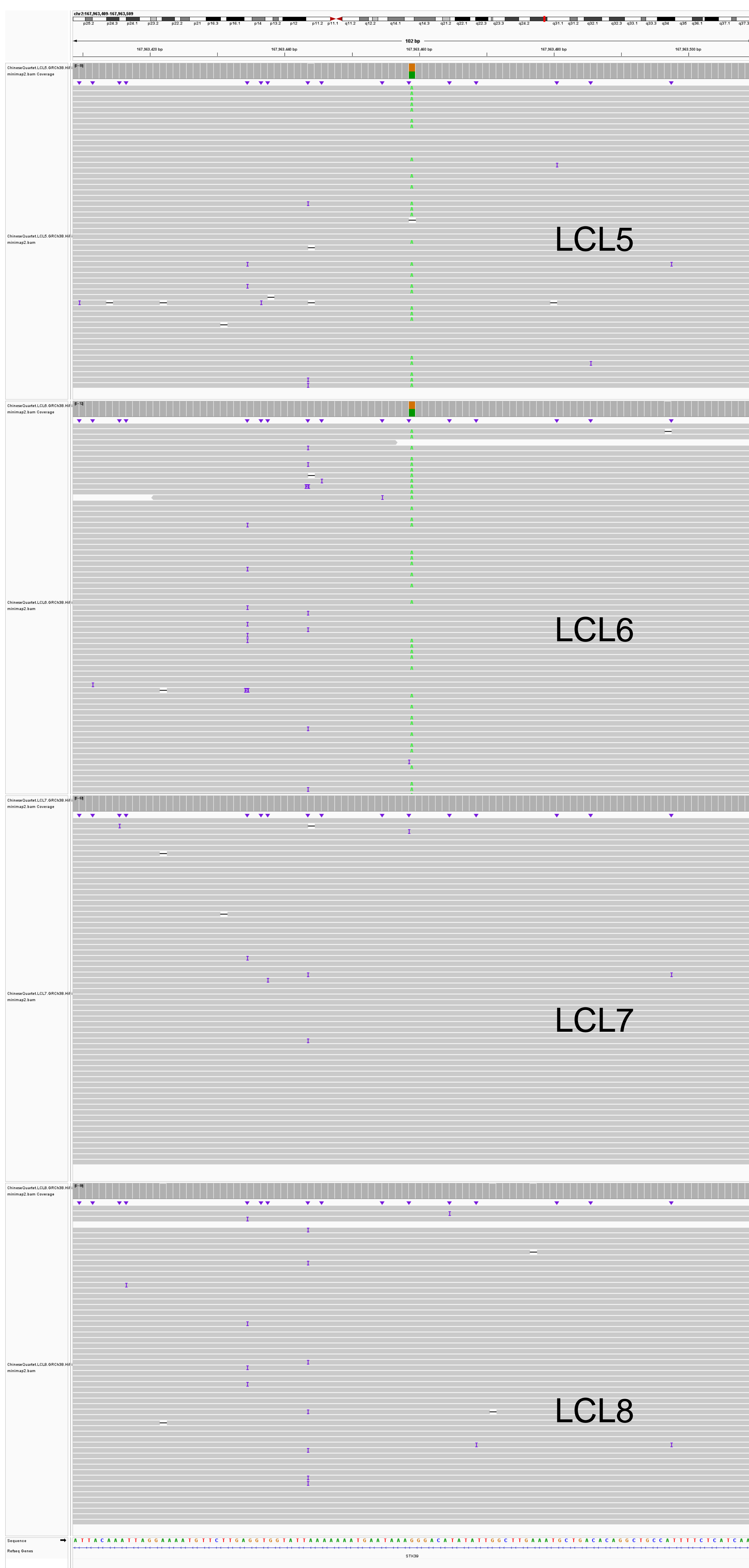


HiFi reads

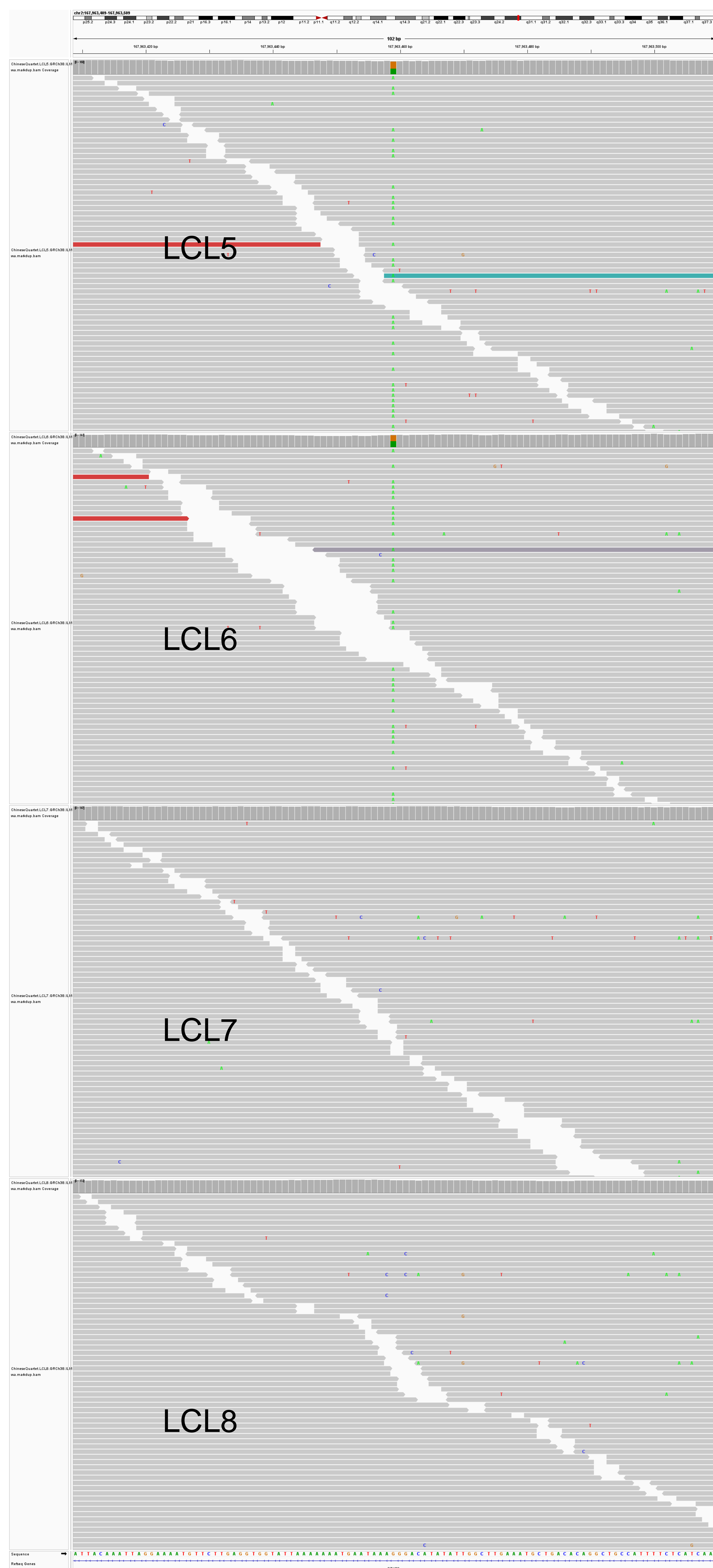


Illumina reads

# POS:chr2:167963459 Report DeNovo mutation by HiFi



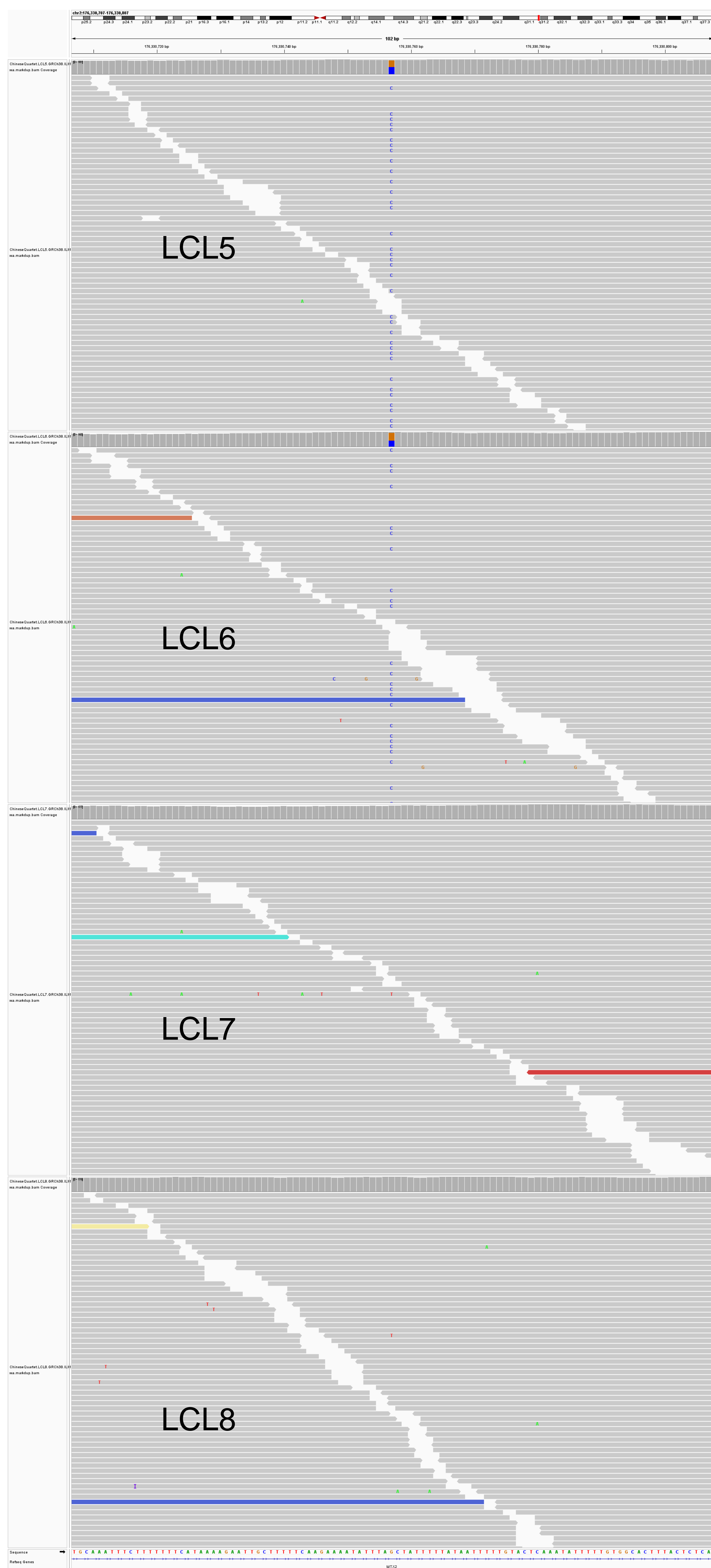
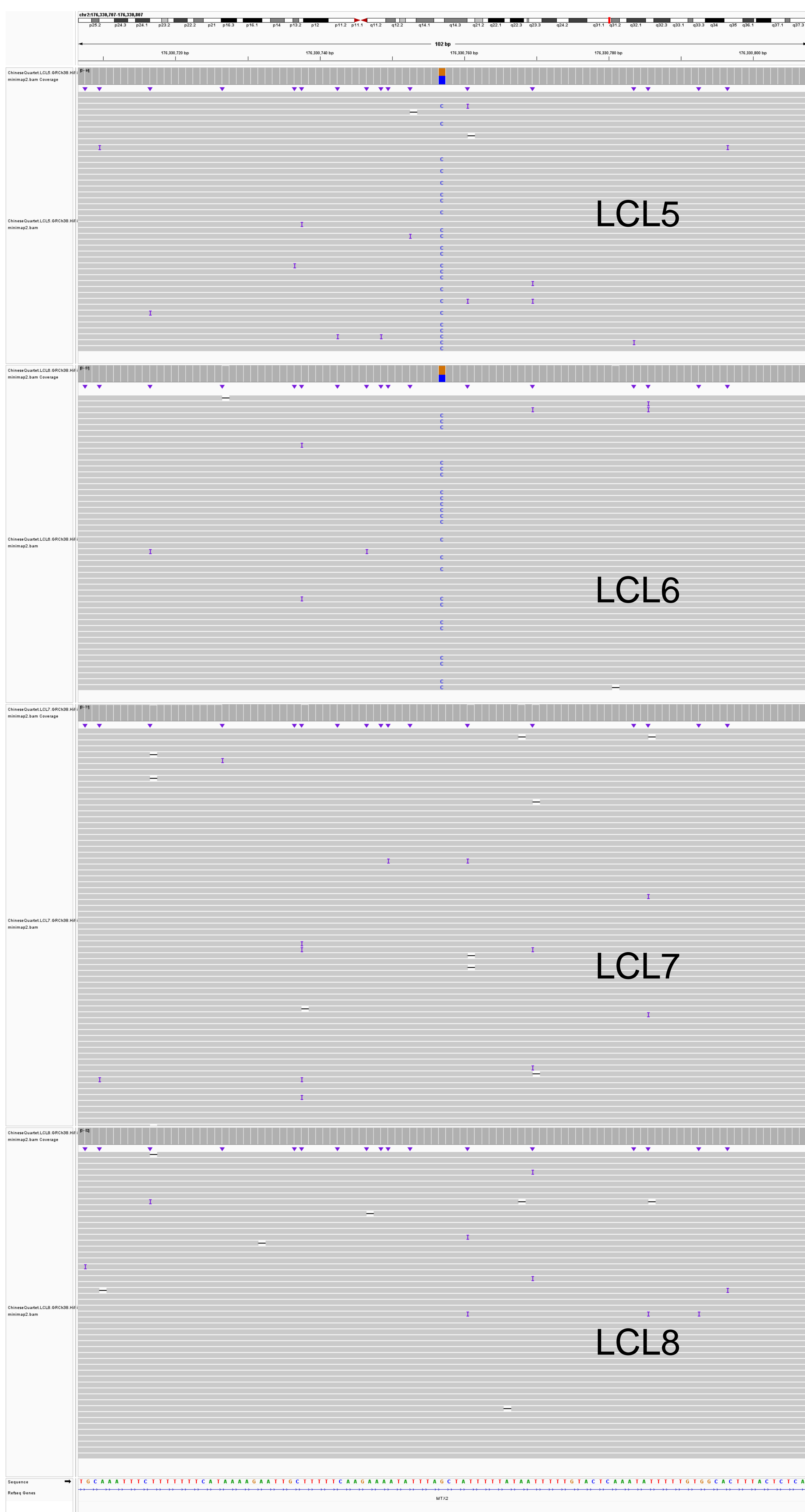
HiFi reads



Illumina reads



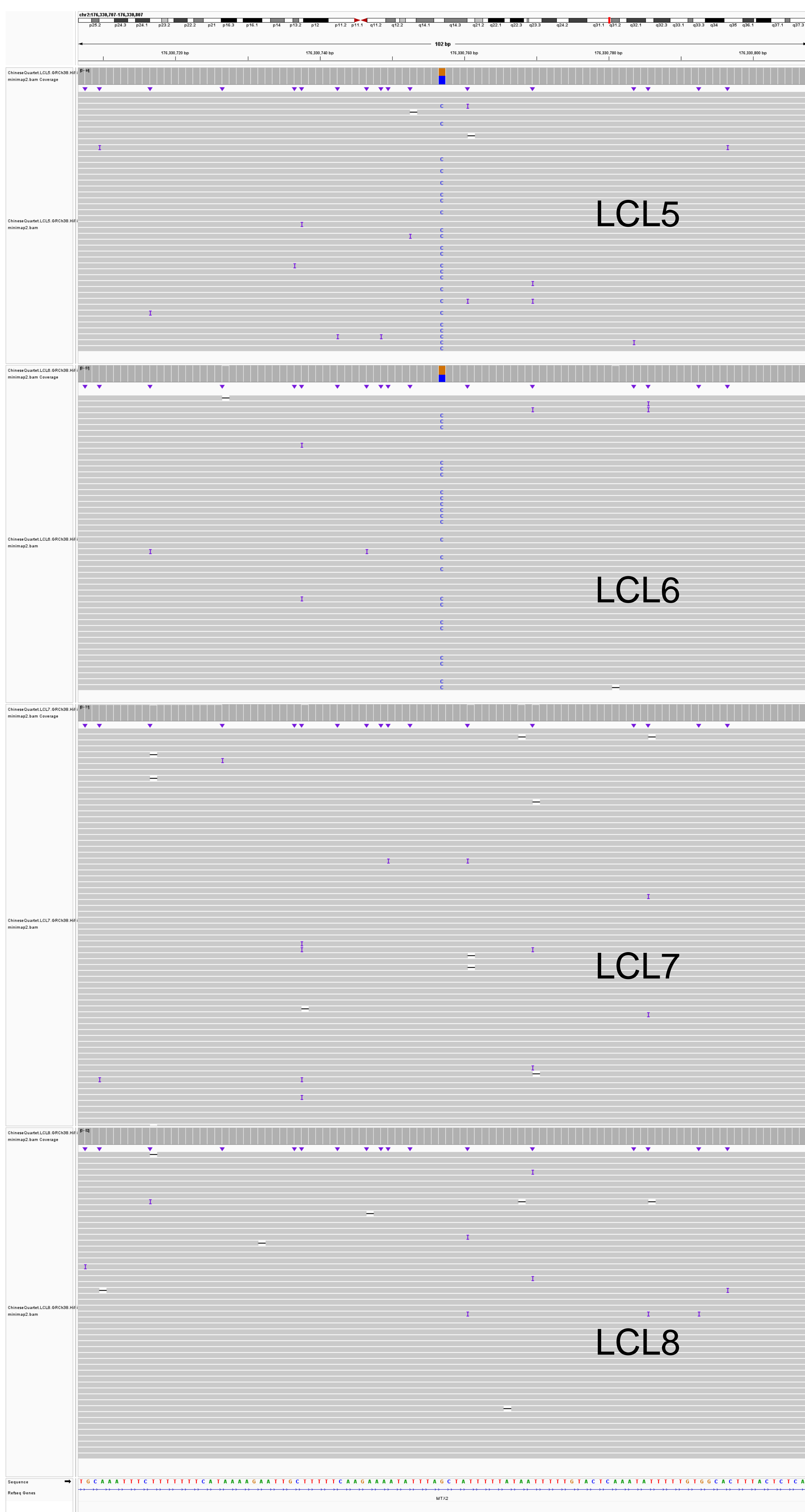
# POS:chr2:176330757 Report DeNovo mutation by ILM



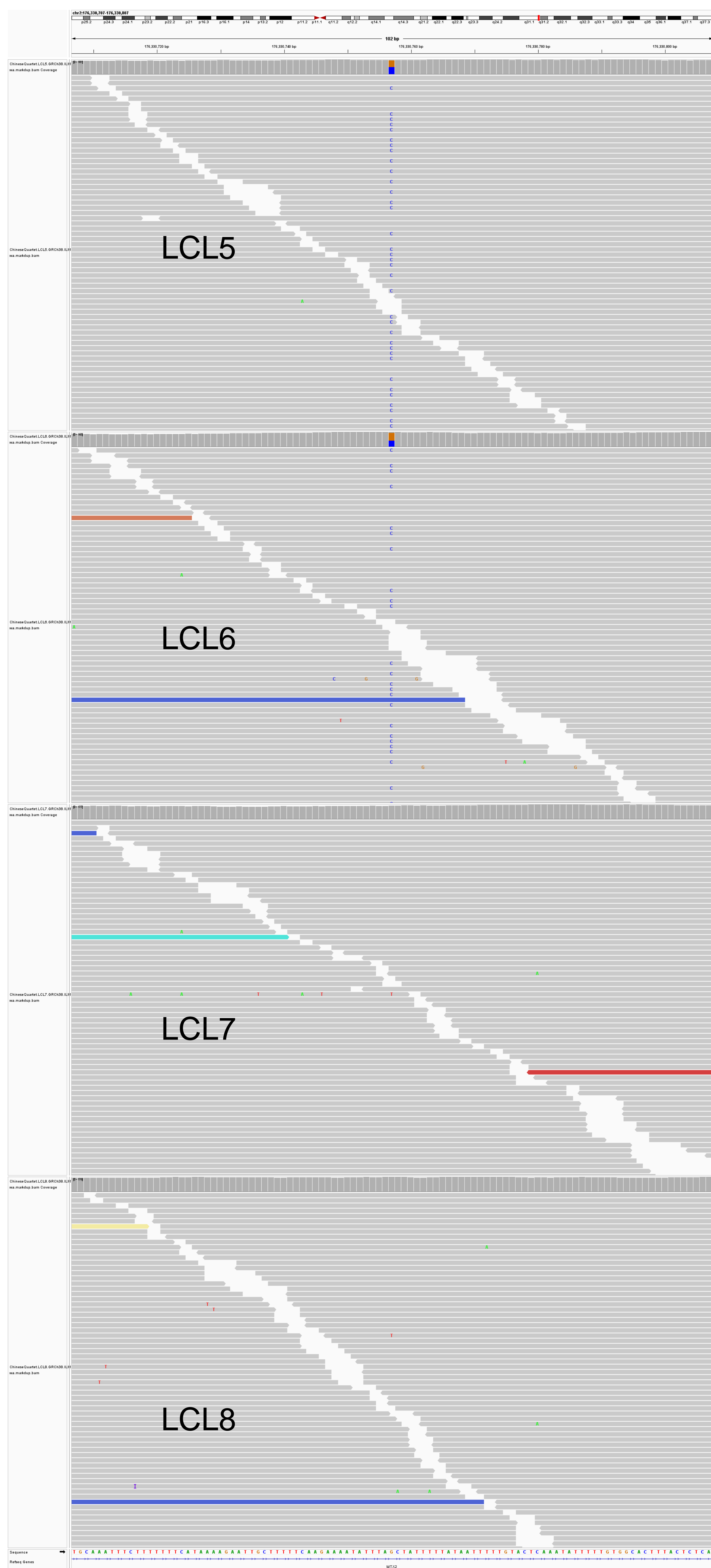
HiFi reads

Illumina reads

# POS:chr2:176330757 Report DeNovo mutation by HiFi



HiFi reads

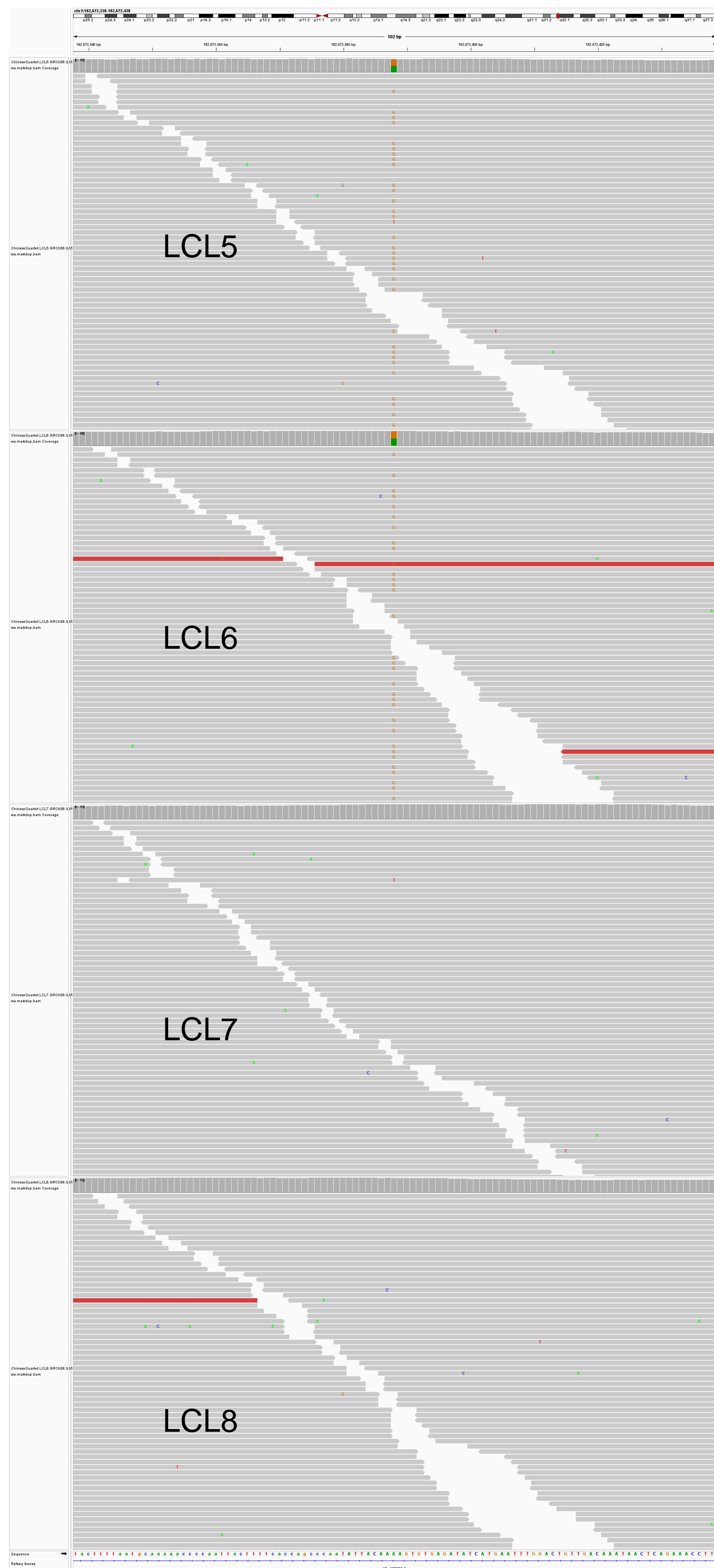


Illumina reads

# POS:chr2:182672388 Report DeNovo mutation by ILM

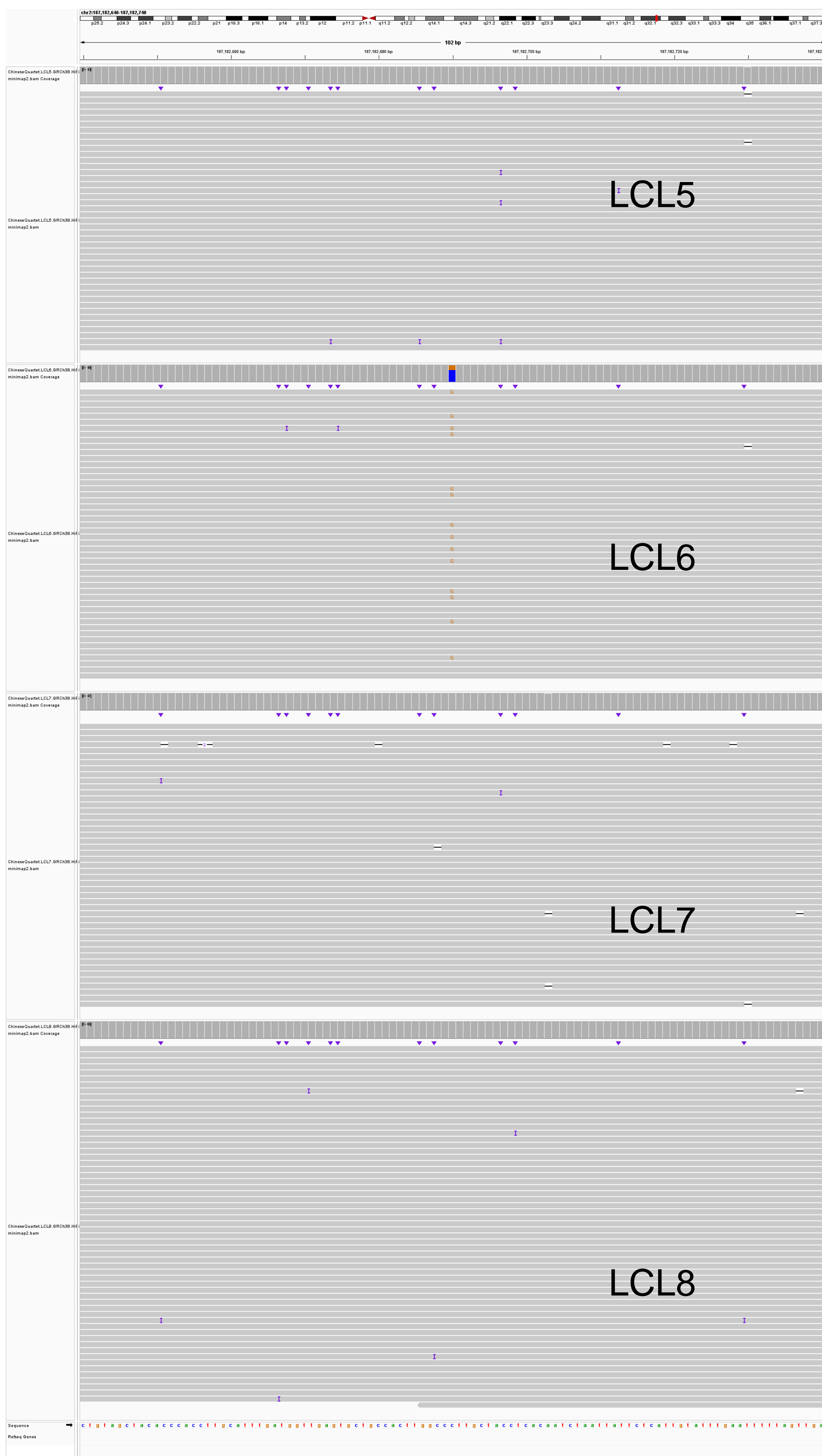


HiFi reads

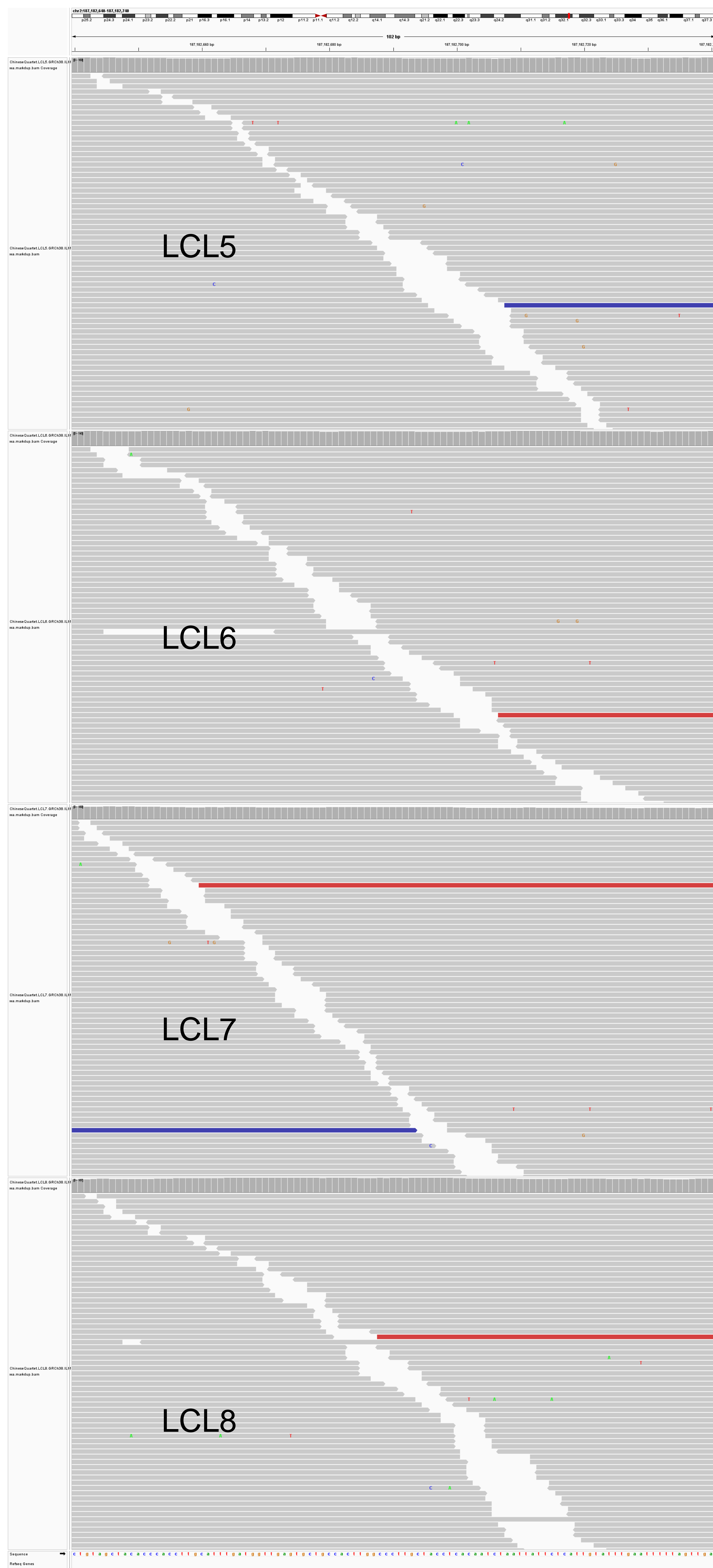


Illumina reads

# POS:chr2:187182690 Report Somatic mutation by HiFi



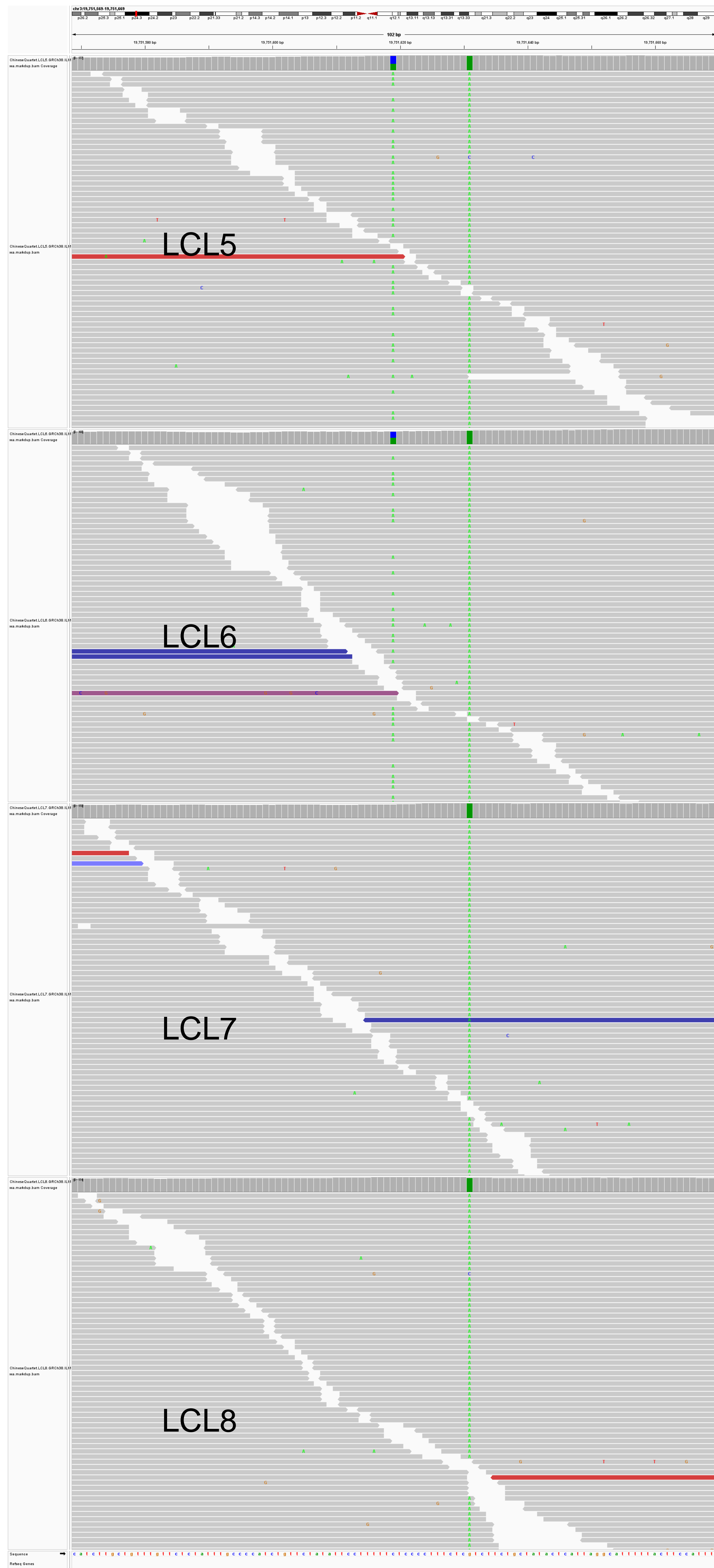
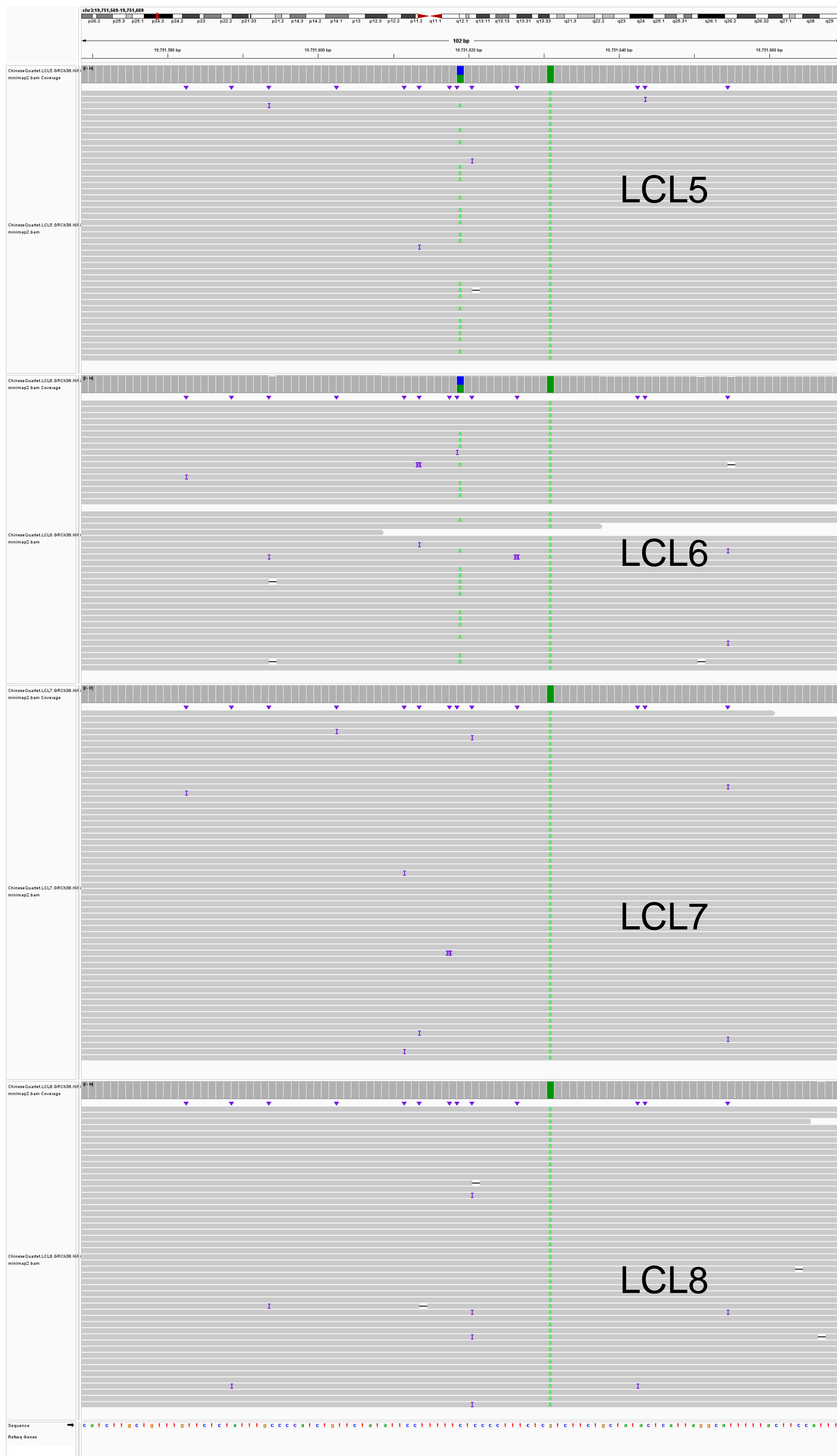
HiFi reads



Illumina reads



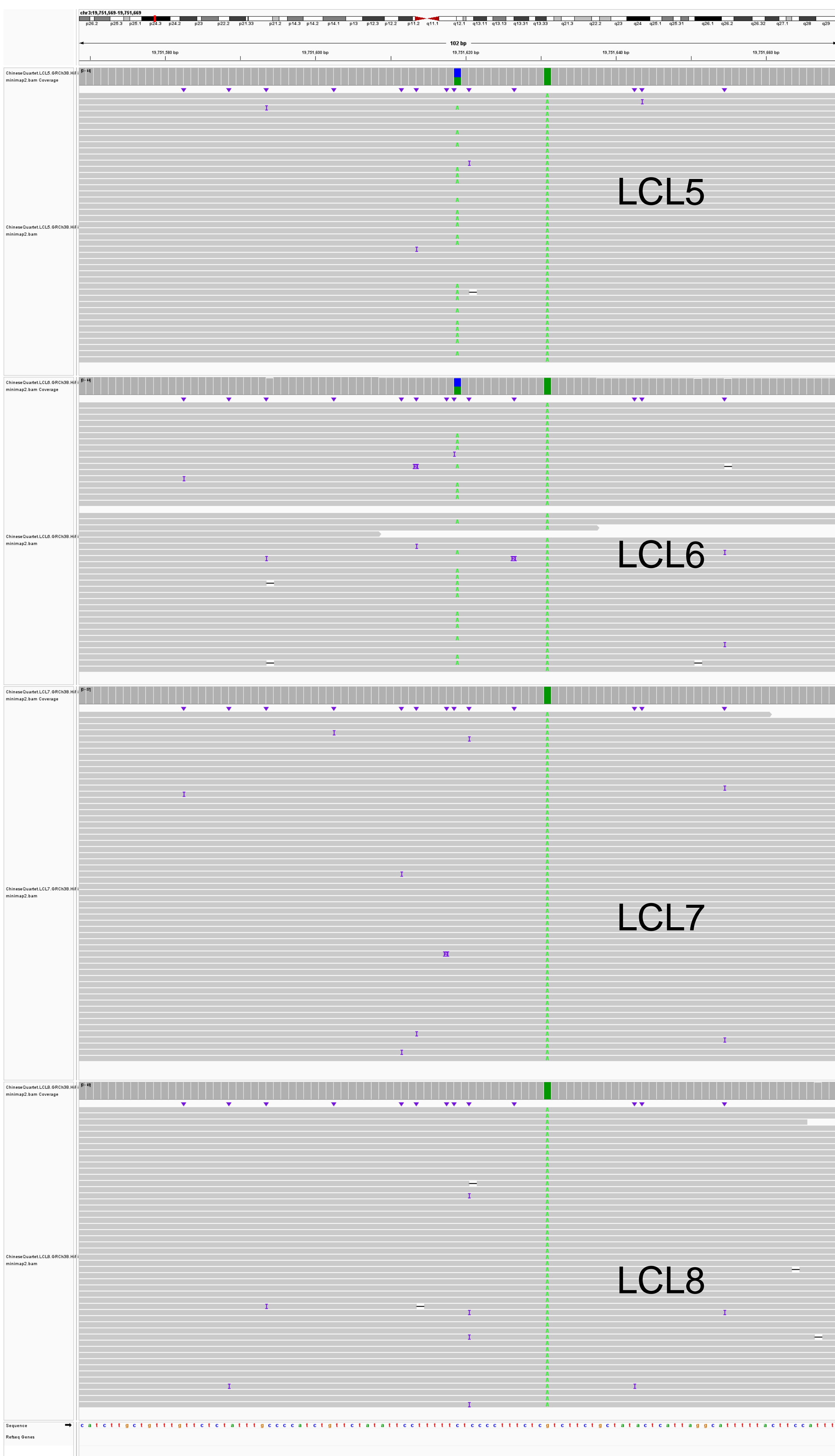
# POS:chr3:19751619 Report DeNovo mutation by ILM



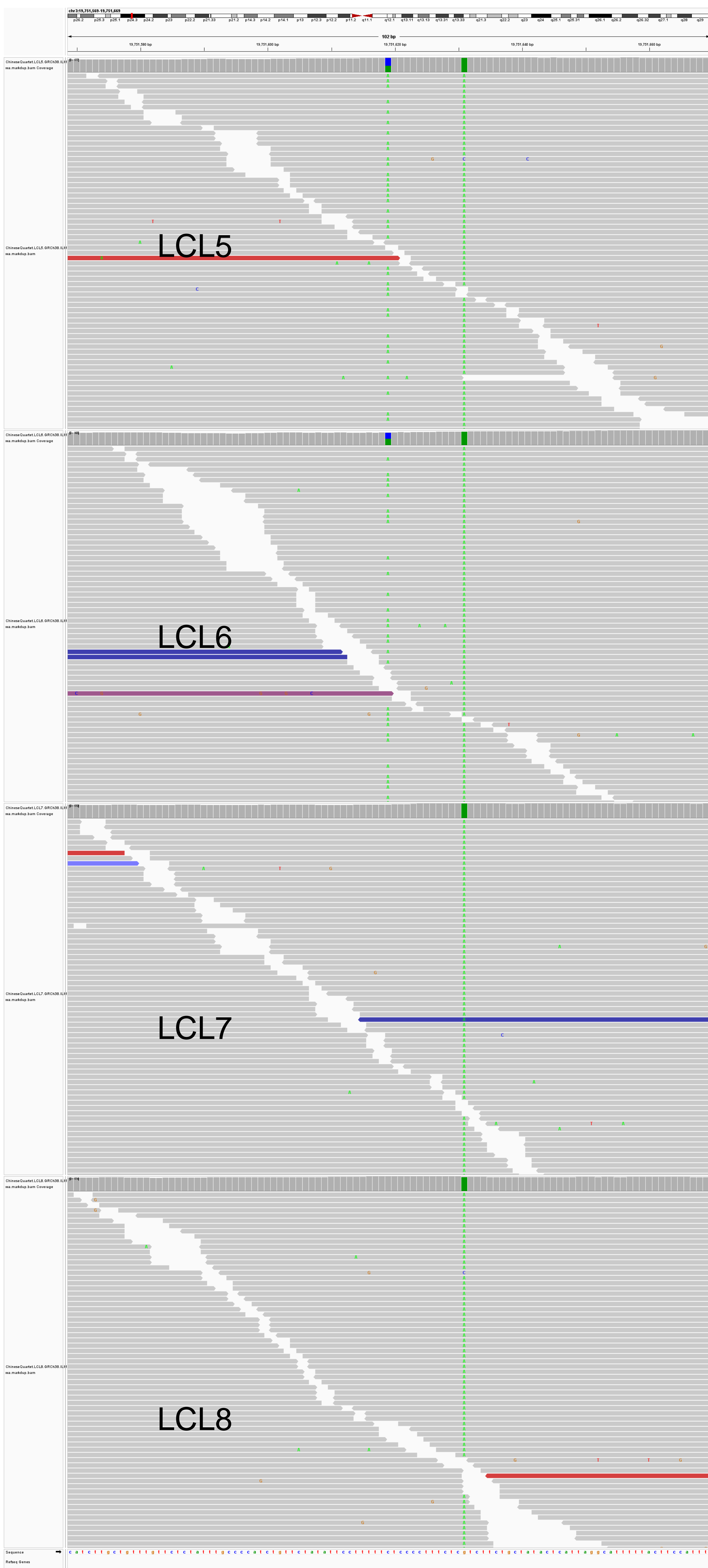
HiFi reads

Illumina reads

# POS:chr3:19751619 Report DeNovo mutation by HiFi

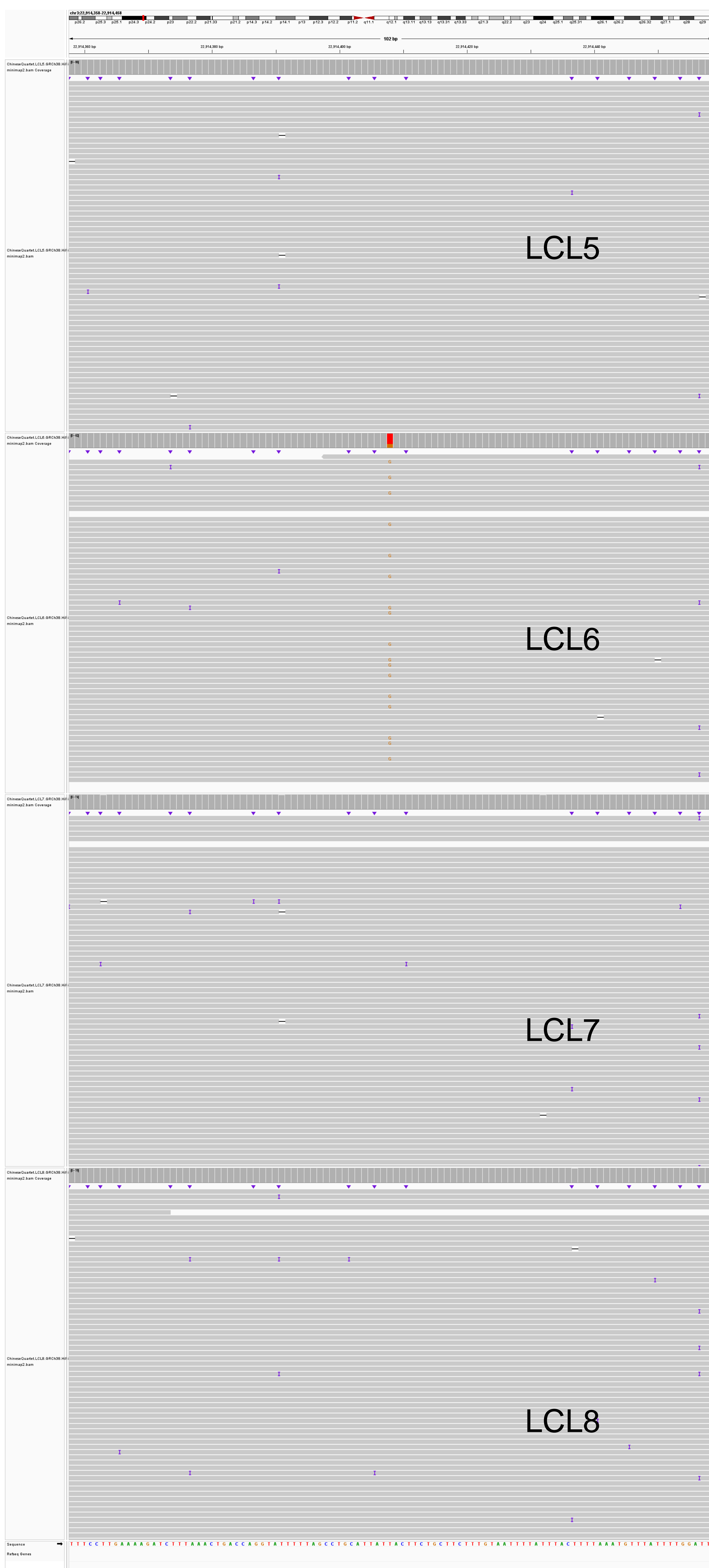


HiFi reads

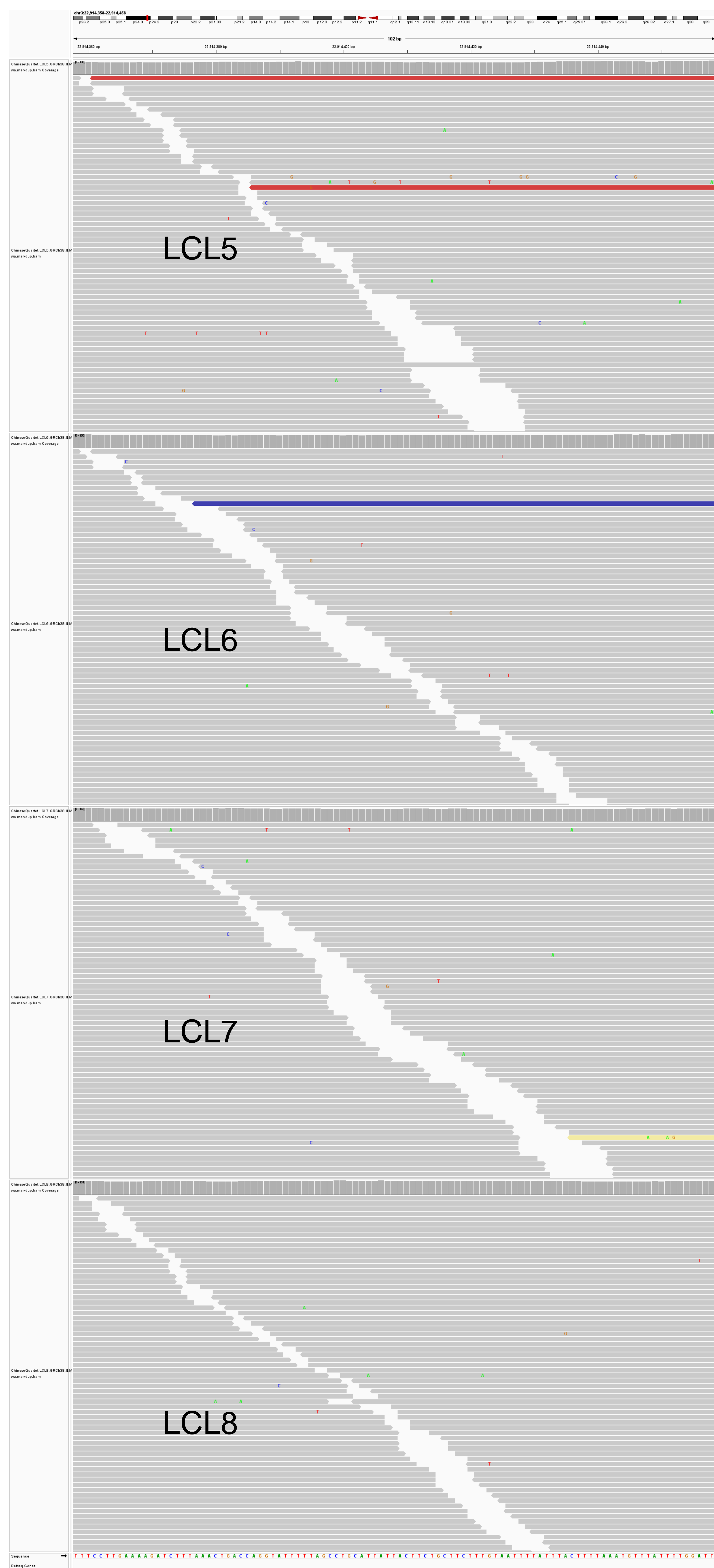


Illumina reads

# POS:chr3:22914408 Report Somatic mutation by HiFi



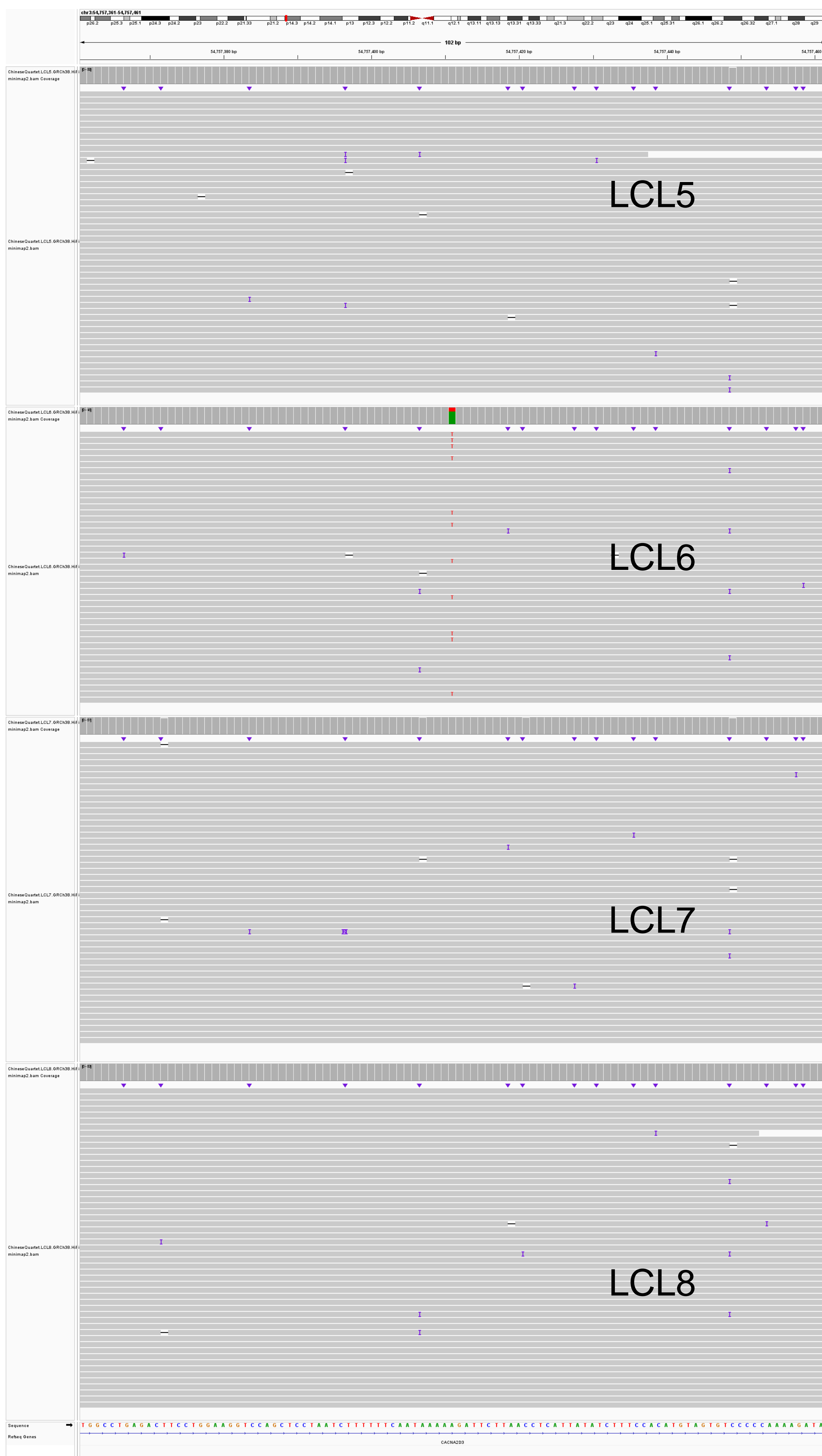
HiFi reads



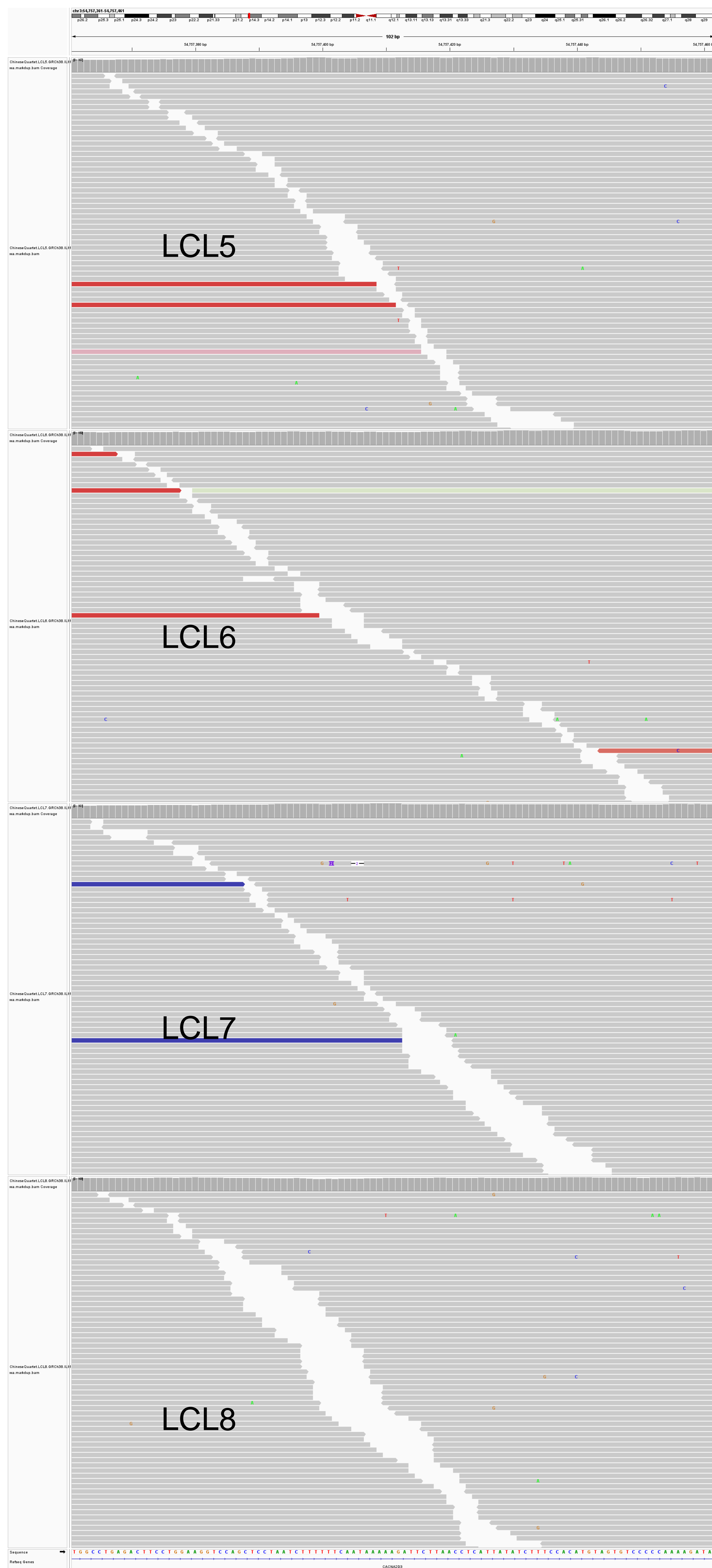
Illumina reads



# POS:chr3:54757411 Report Somatic mutation by HiFi



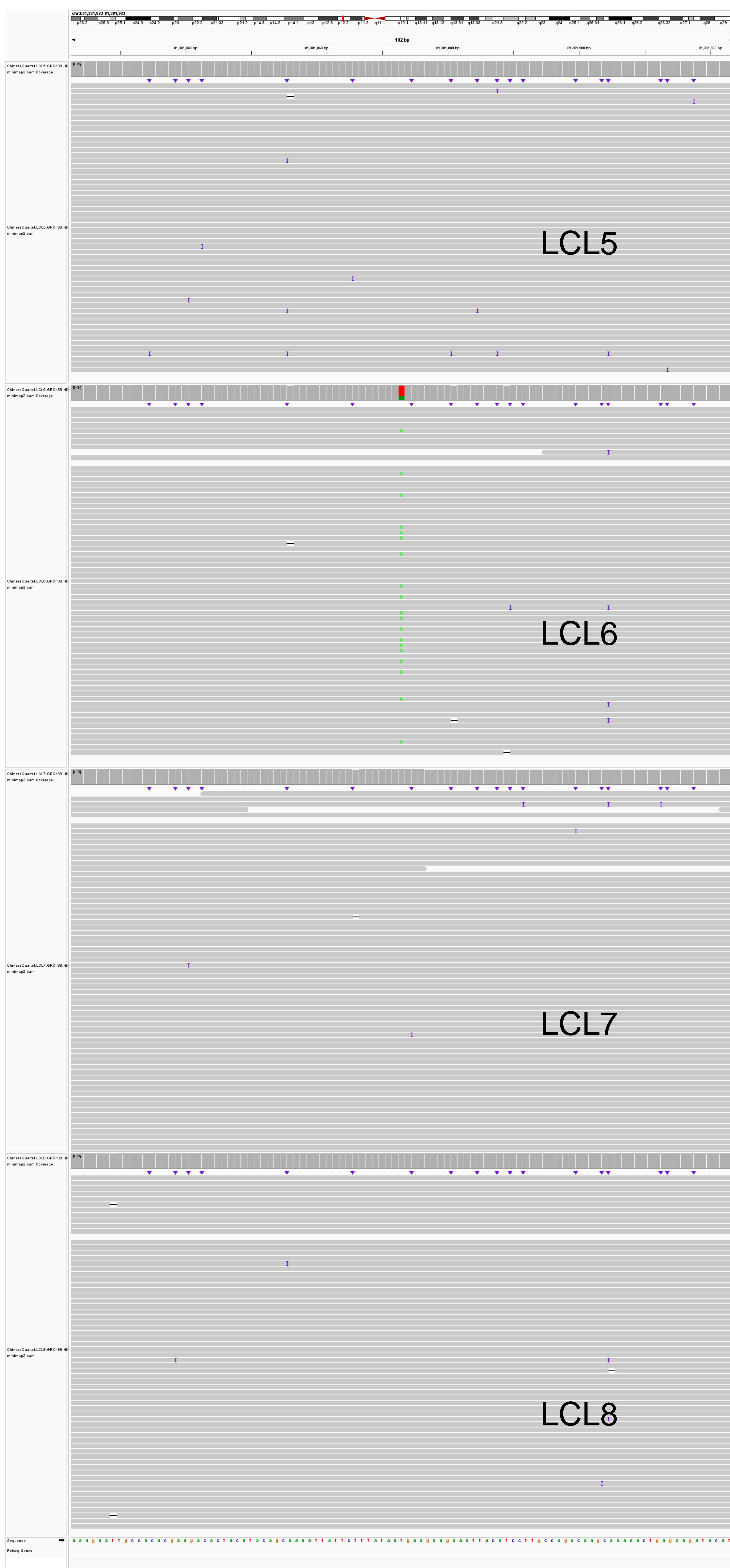
HiFi reads



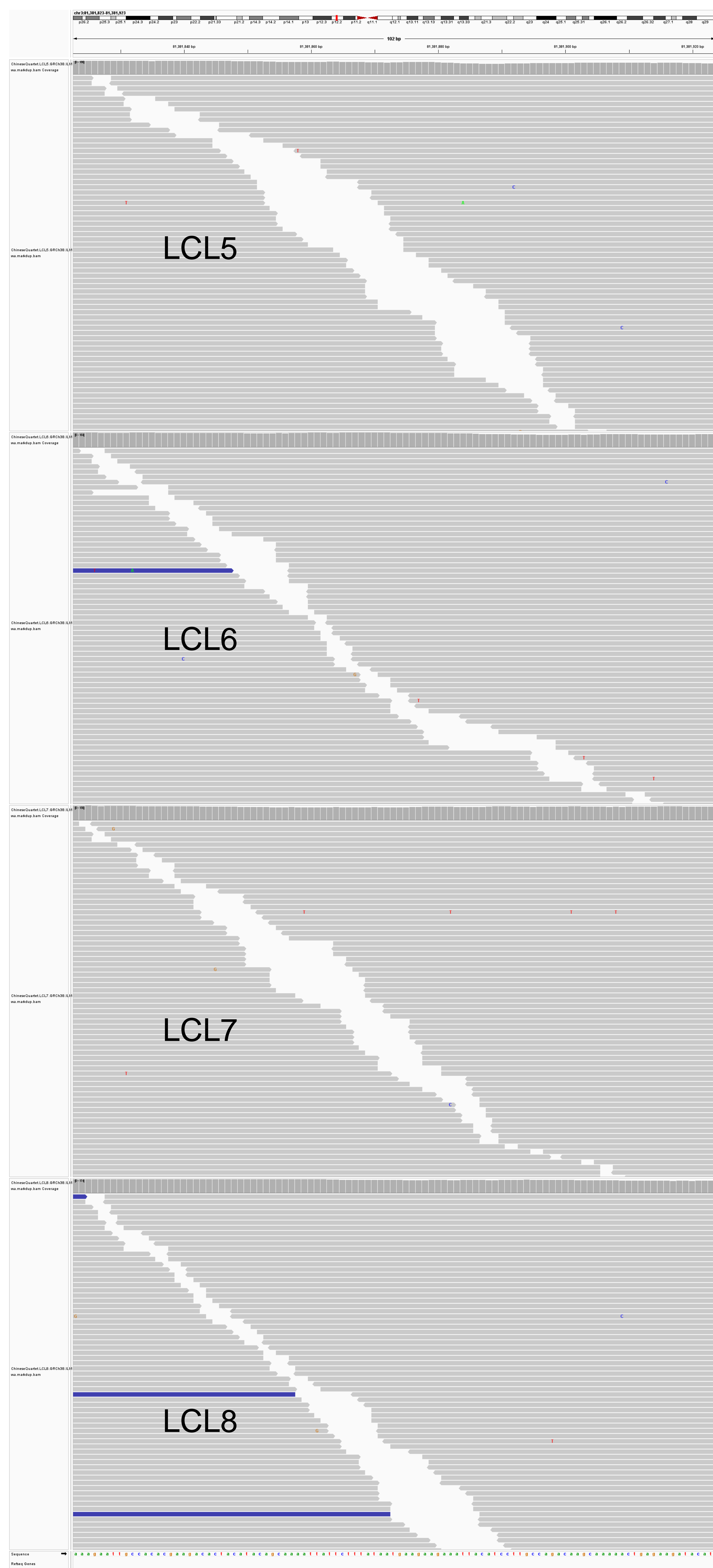
Illumina reads



# POS:chr3:81381873 Report Somatic mutation by HiFi

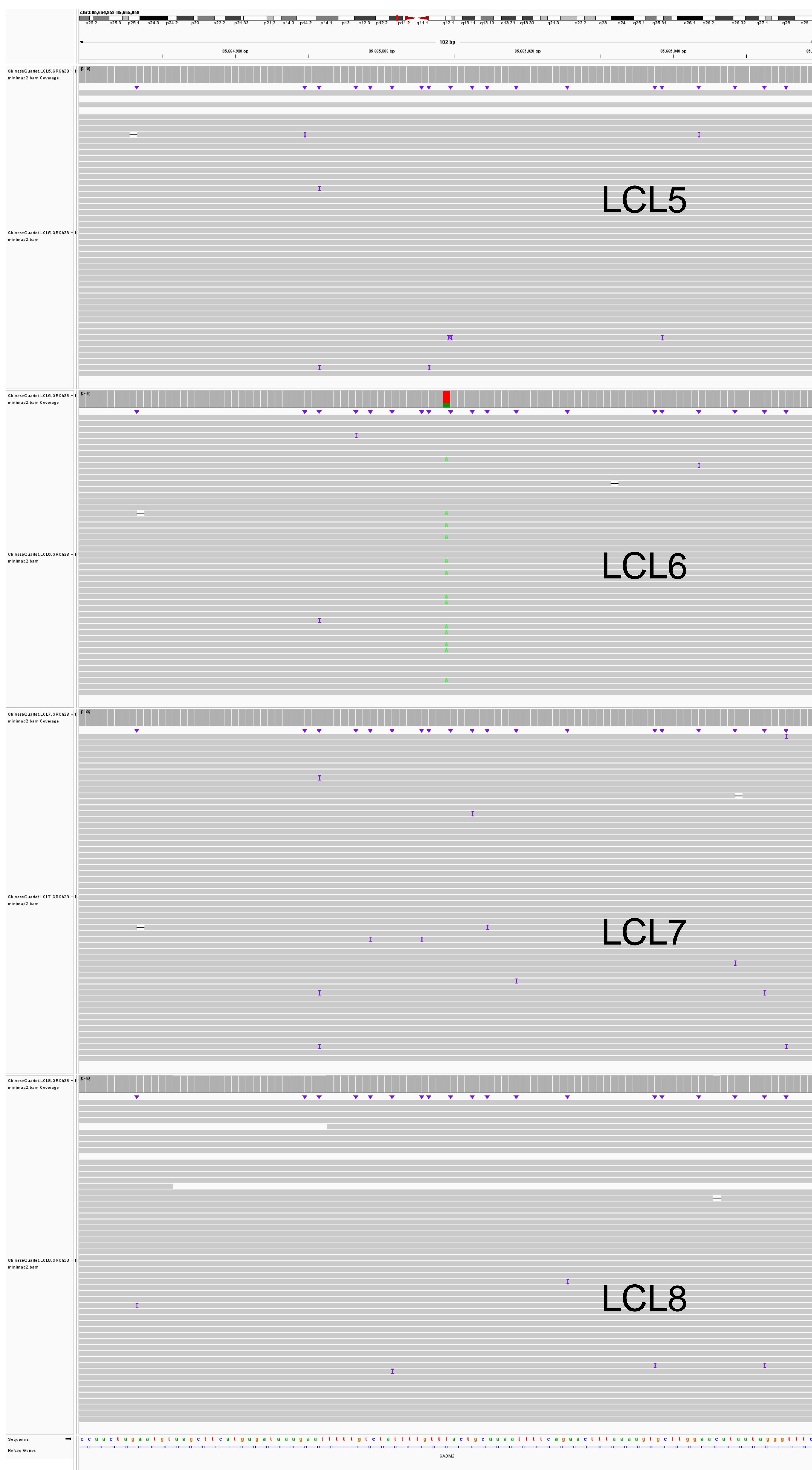


HiFi reads

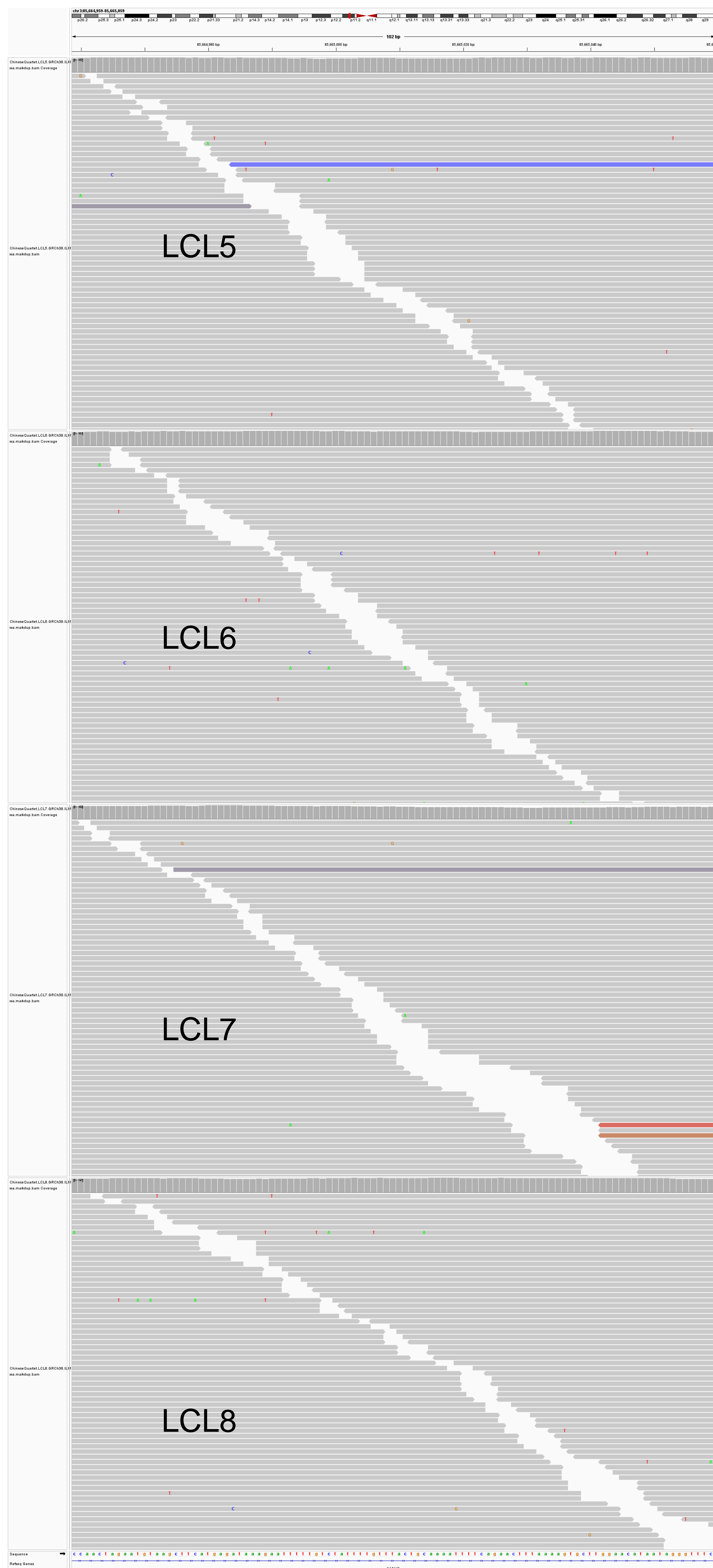


Illumina reads

# POS:chr3:85665009 Report Somatic mutation by HiFi

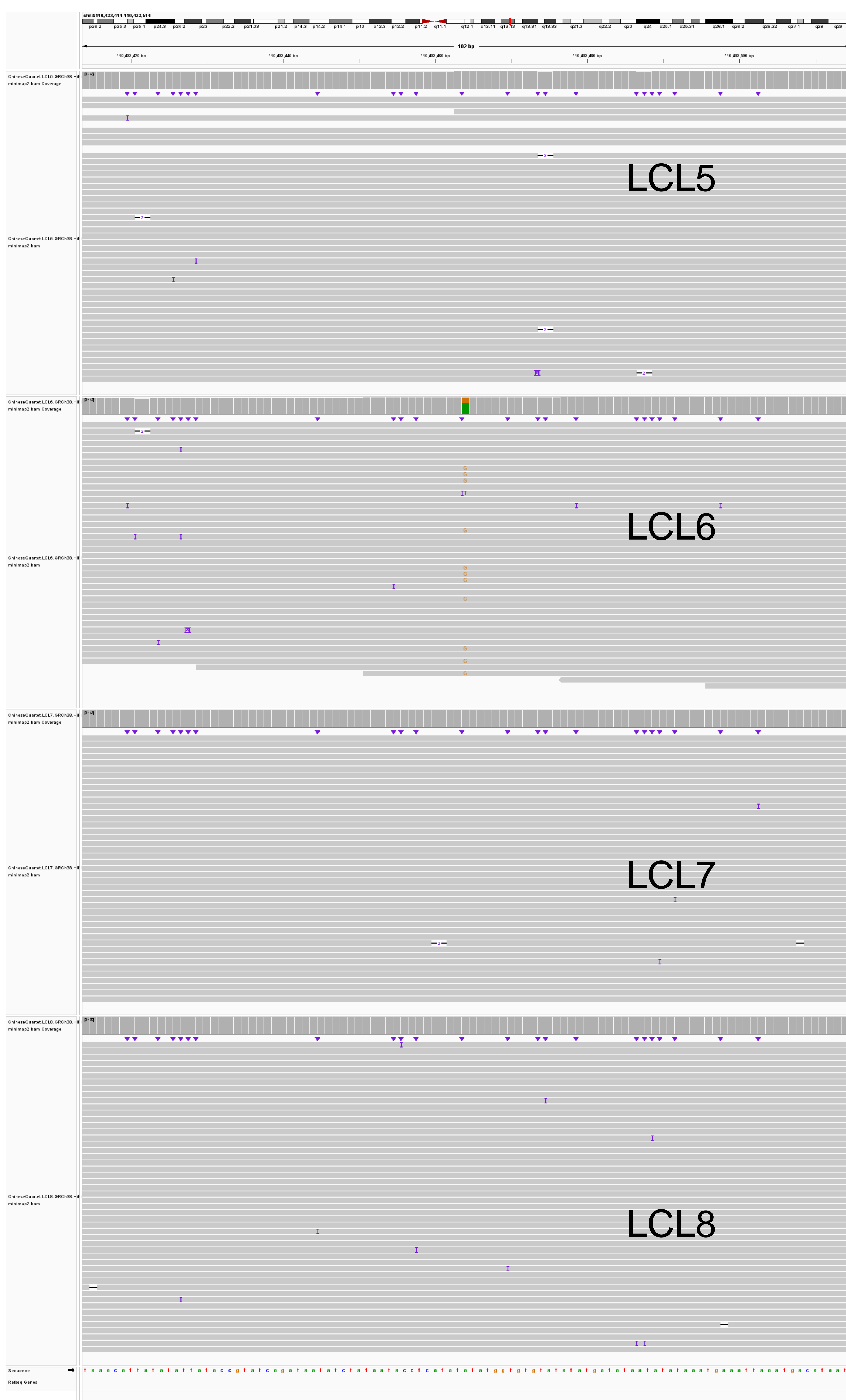


HiFi reads

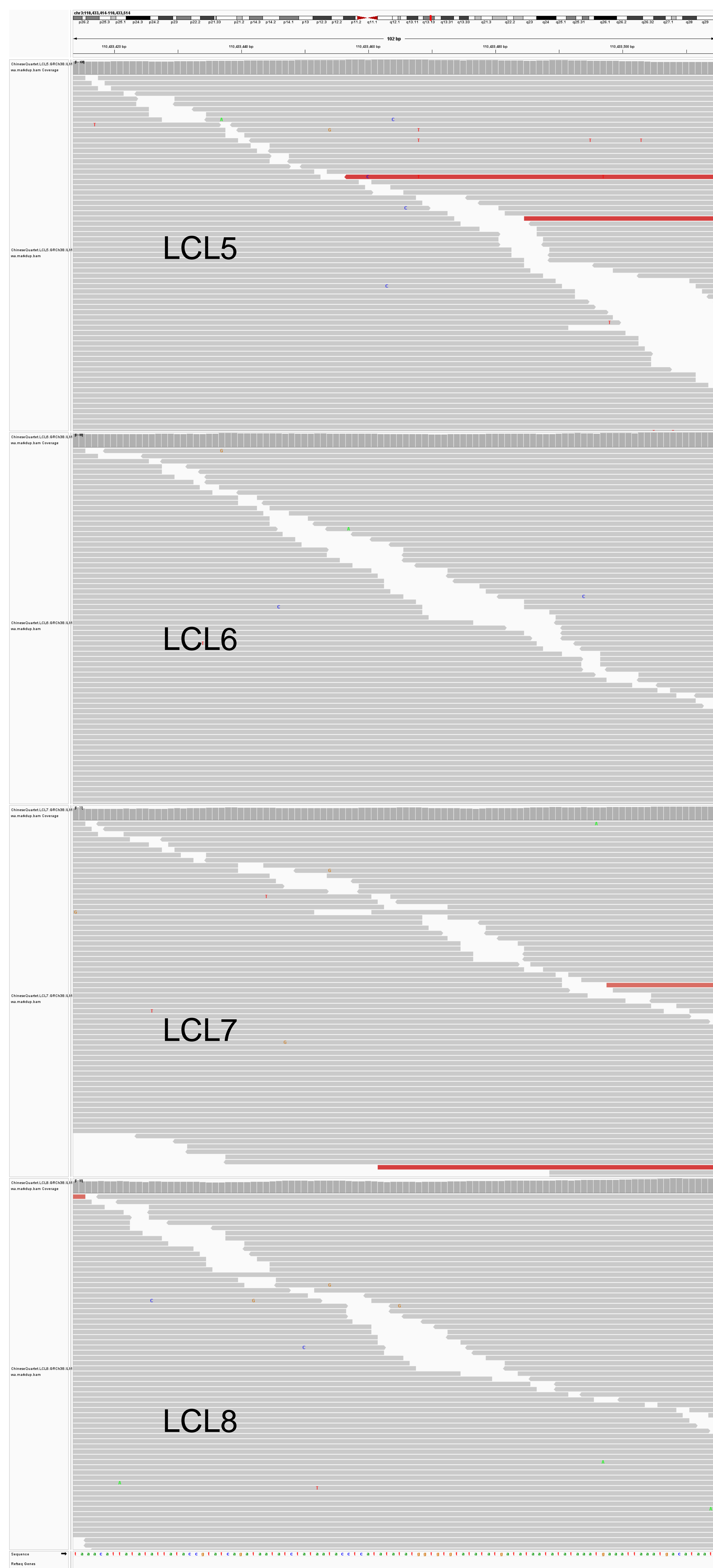


Illumina reads

# POS:chr3:110433464 Report Somatic mutation by HiFi

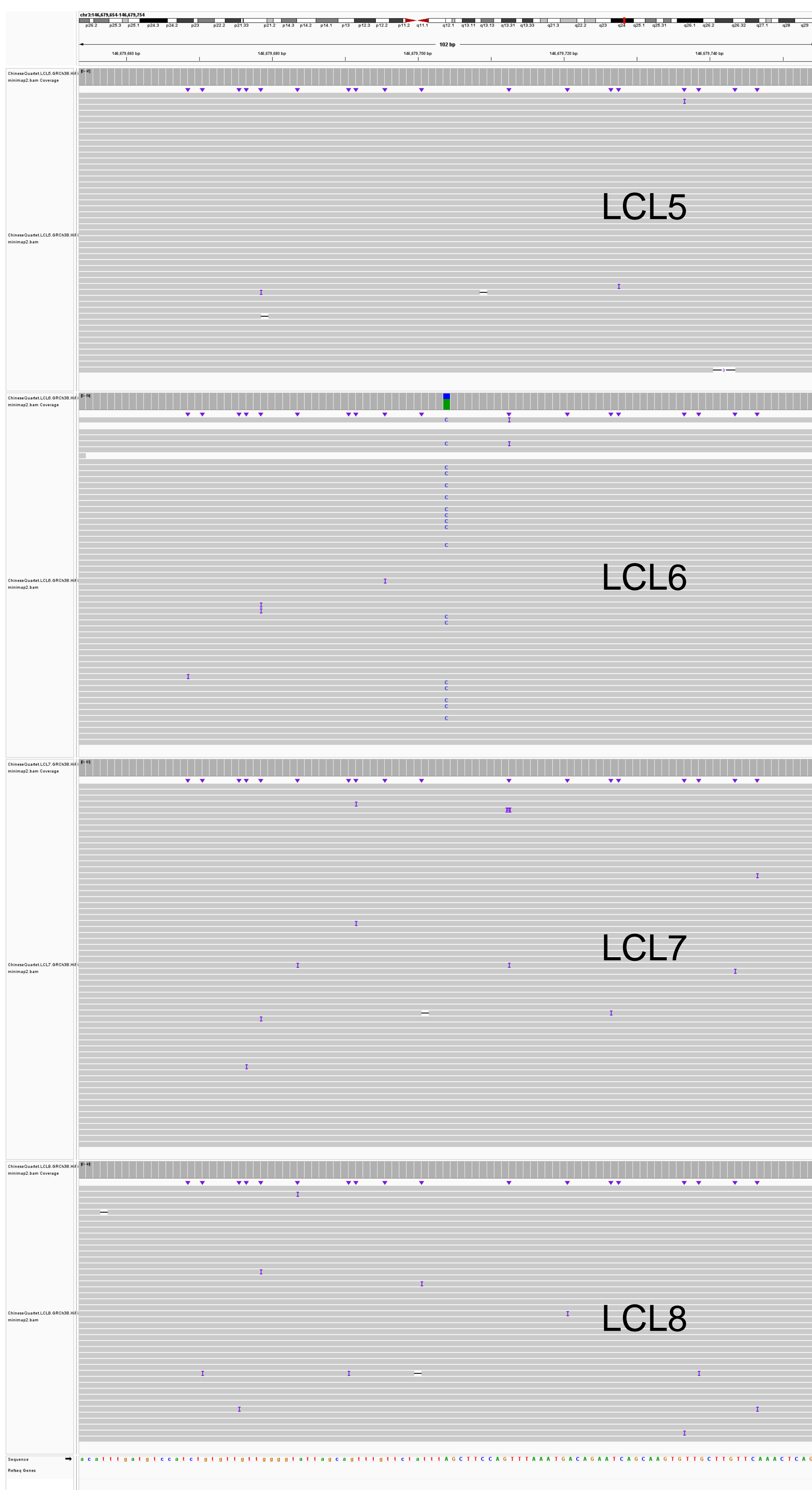


HiFi reads

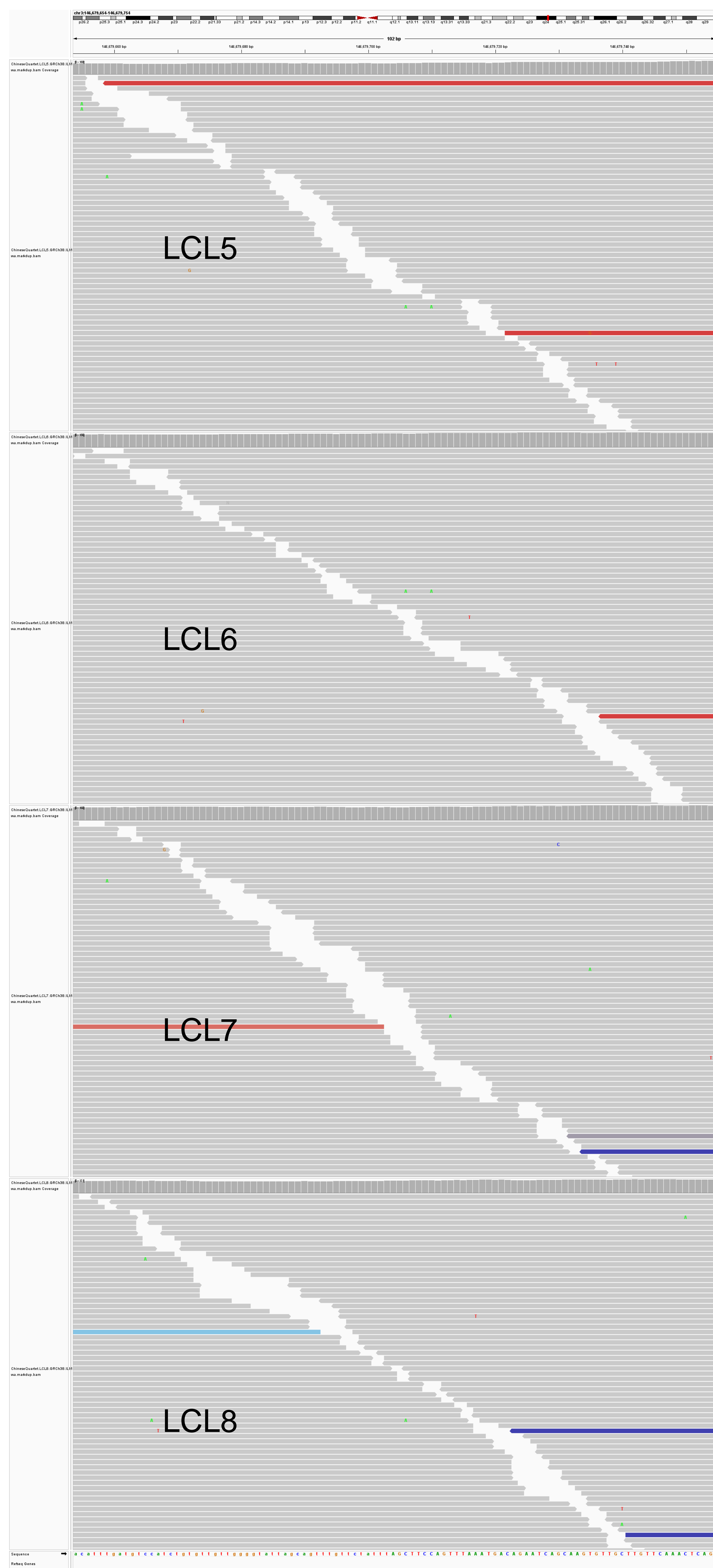


Illumina reads

# POS:chr3:146679704 Report Somatic mutation by HiFi



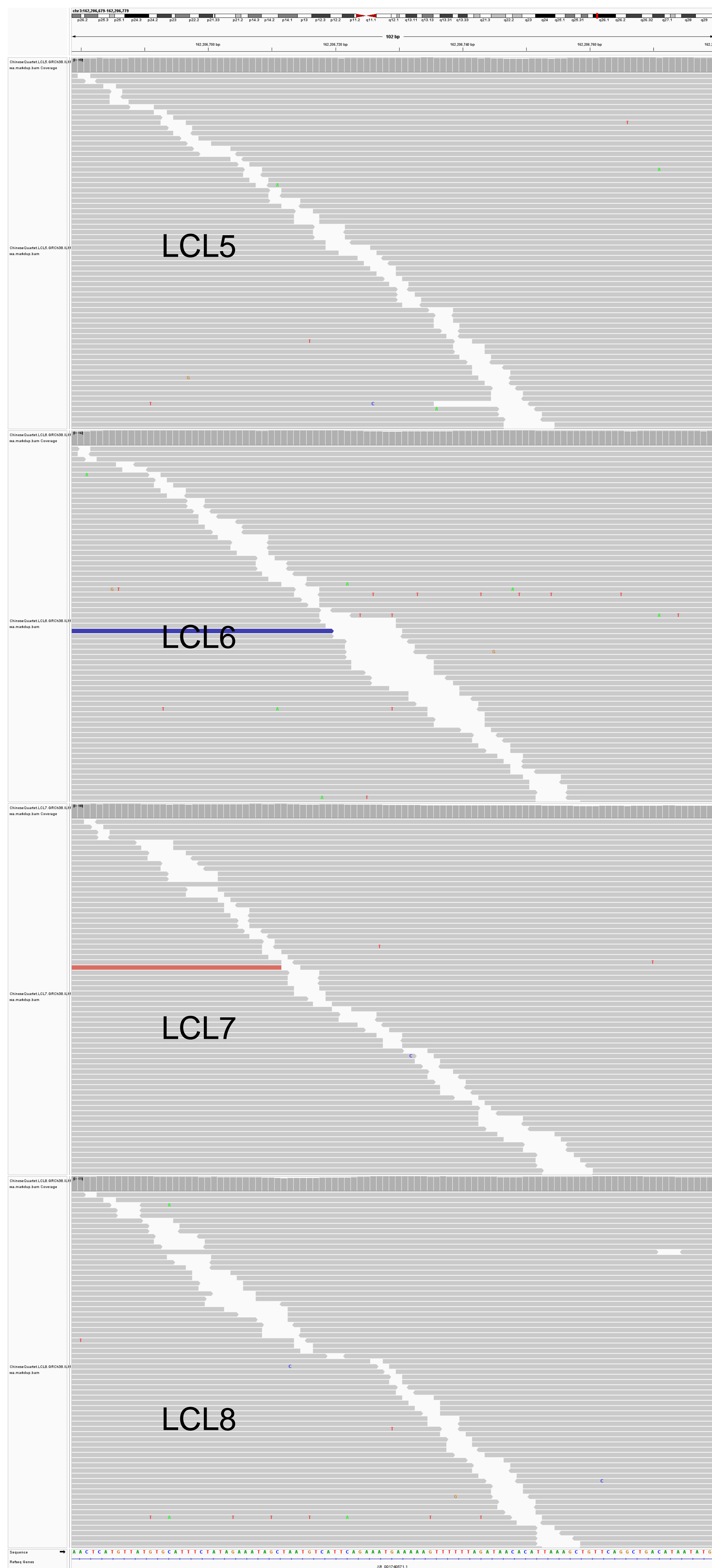
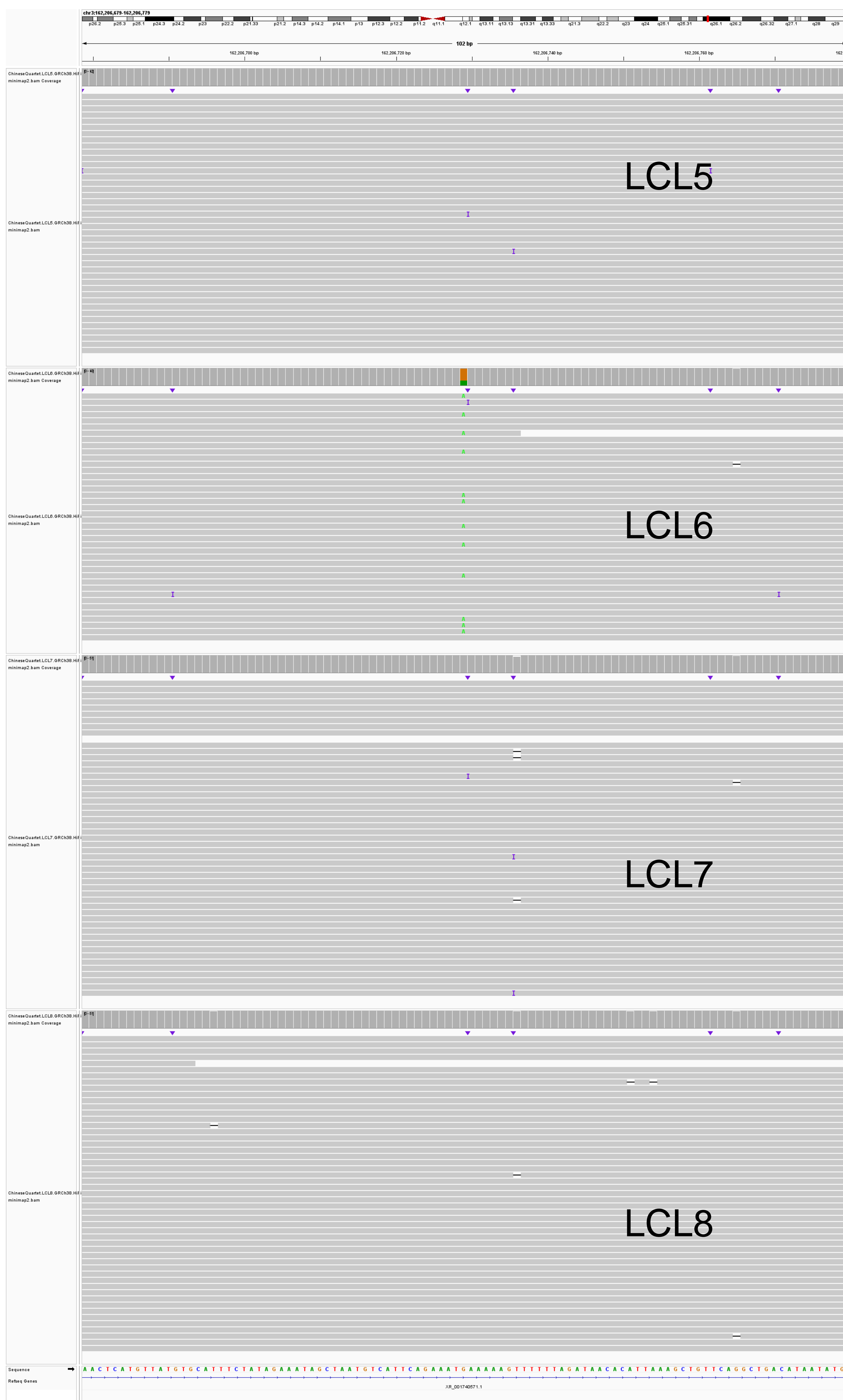
HiFi reads



Illumina reads



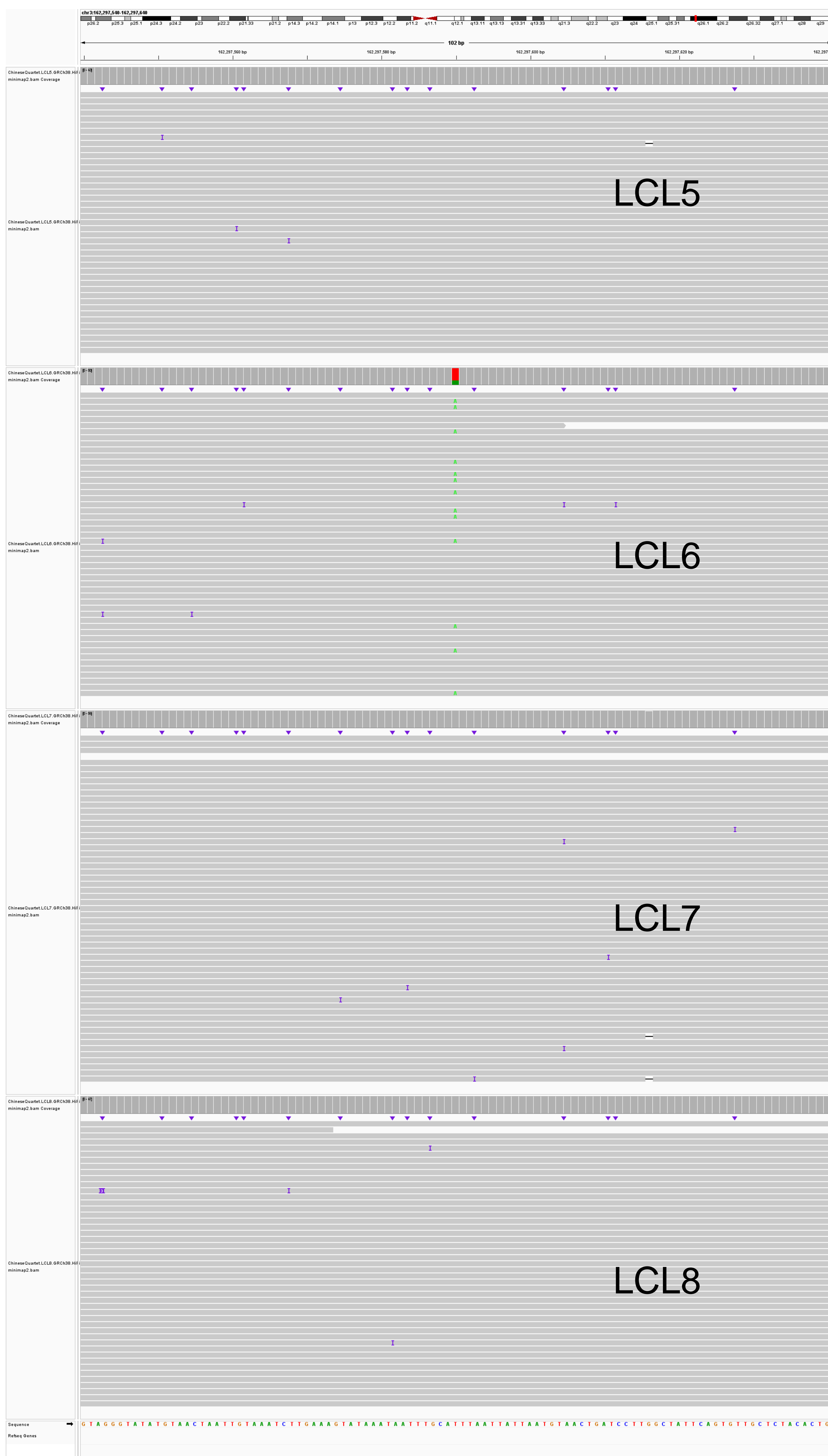
# POS:chr3:162206729 Report Somatic mutation by HiFi



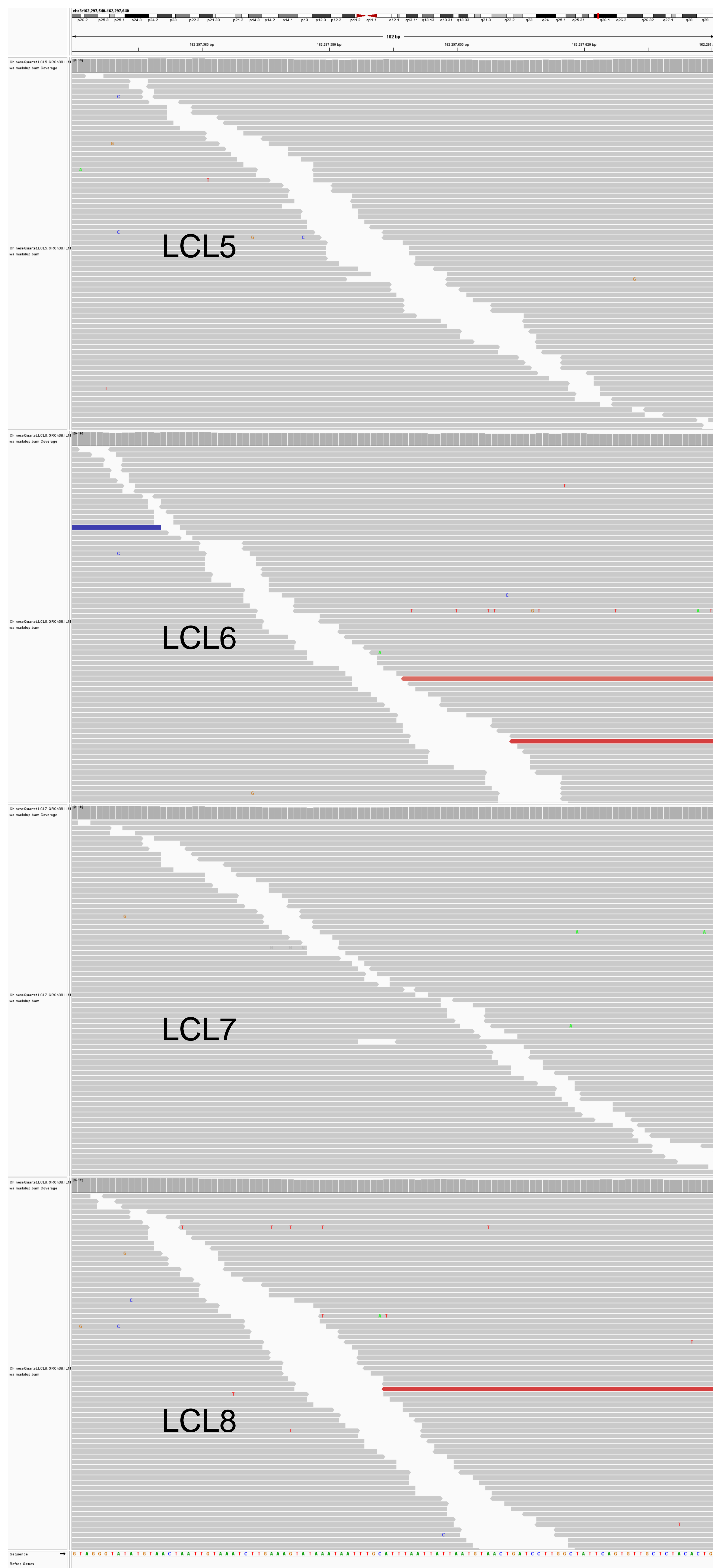
HiFi reads

Illumina reads

# POS:chr3:162297590 Report Somatic mutation by HiFi

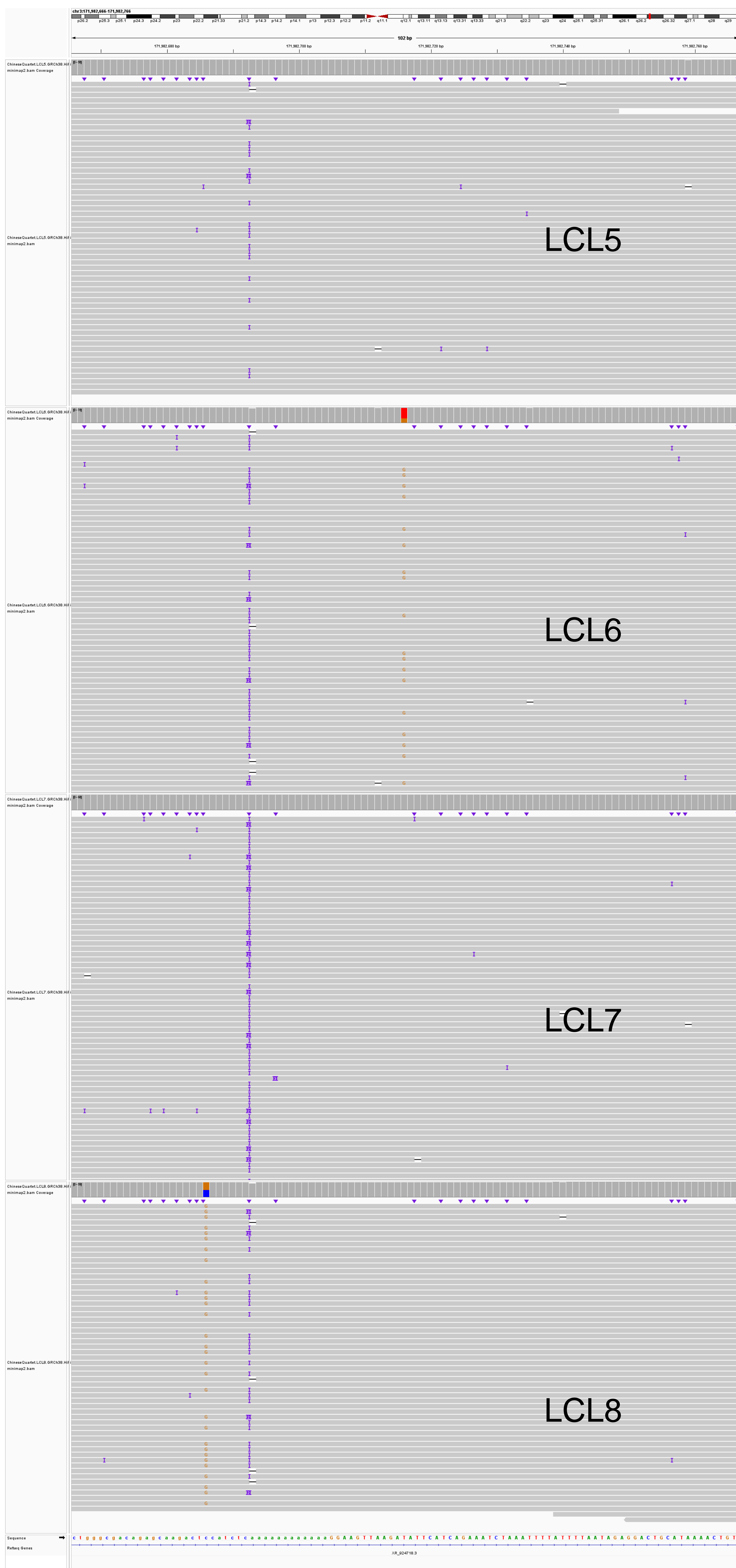


HiFi reads

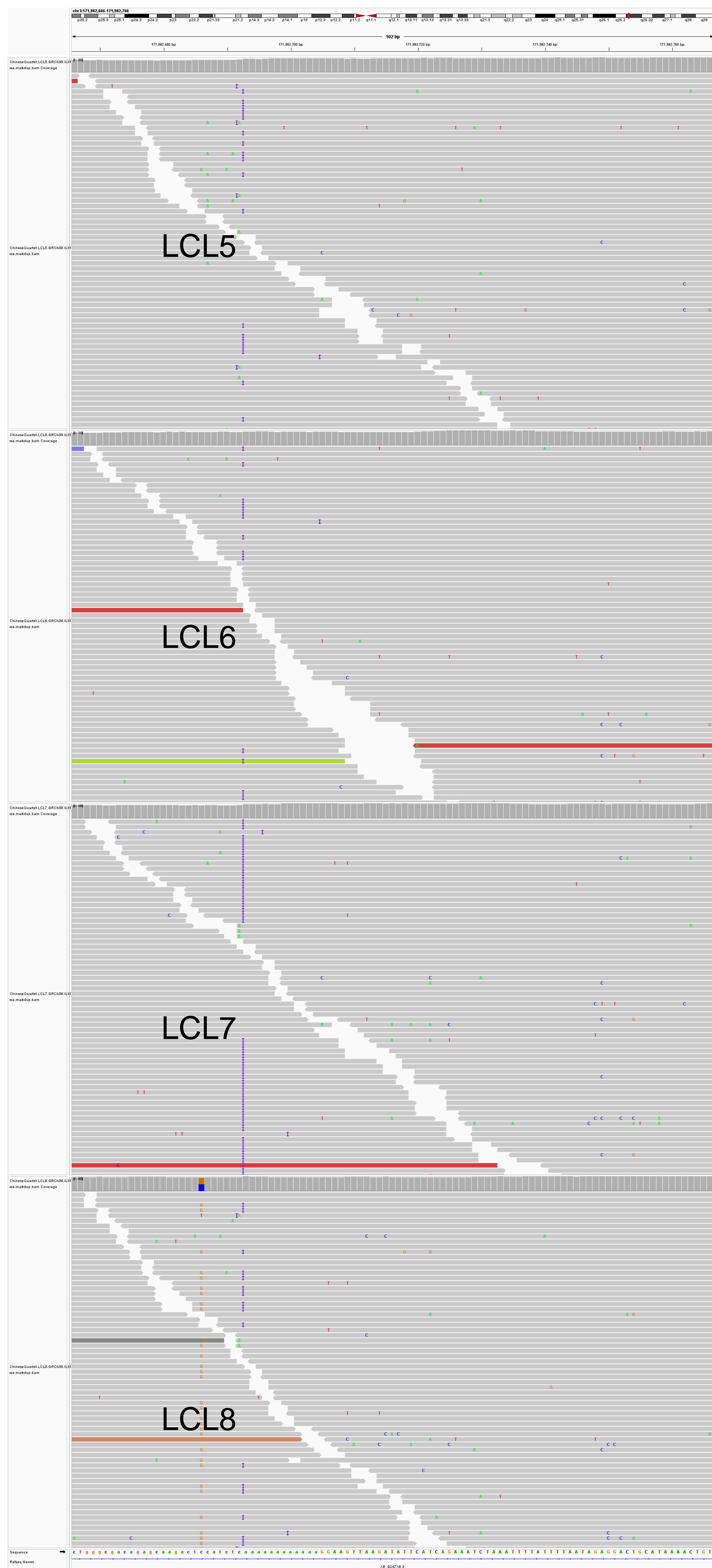


Illumina reads

# POS:chr3:171982716 Report Somatic mutation by HiFi

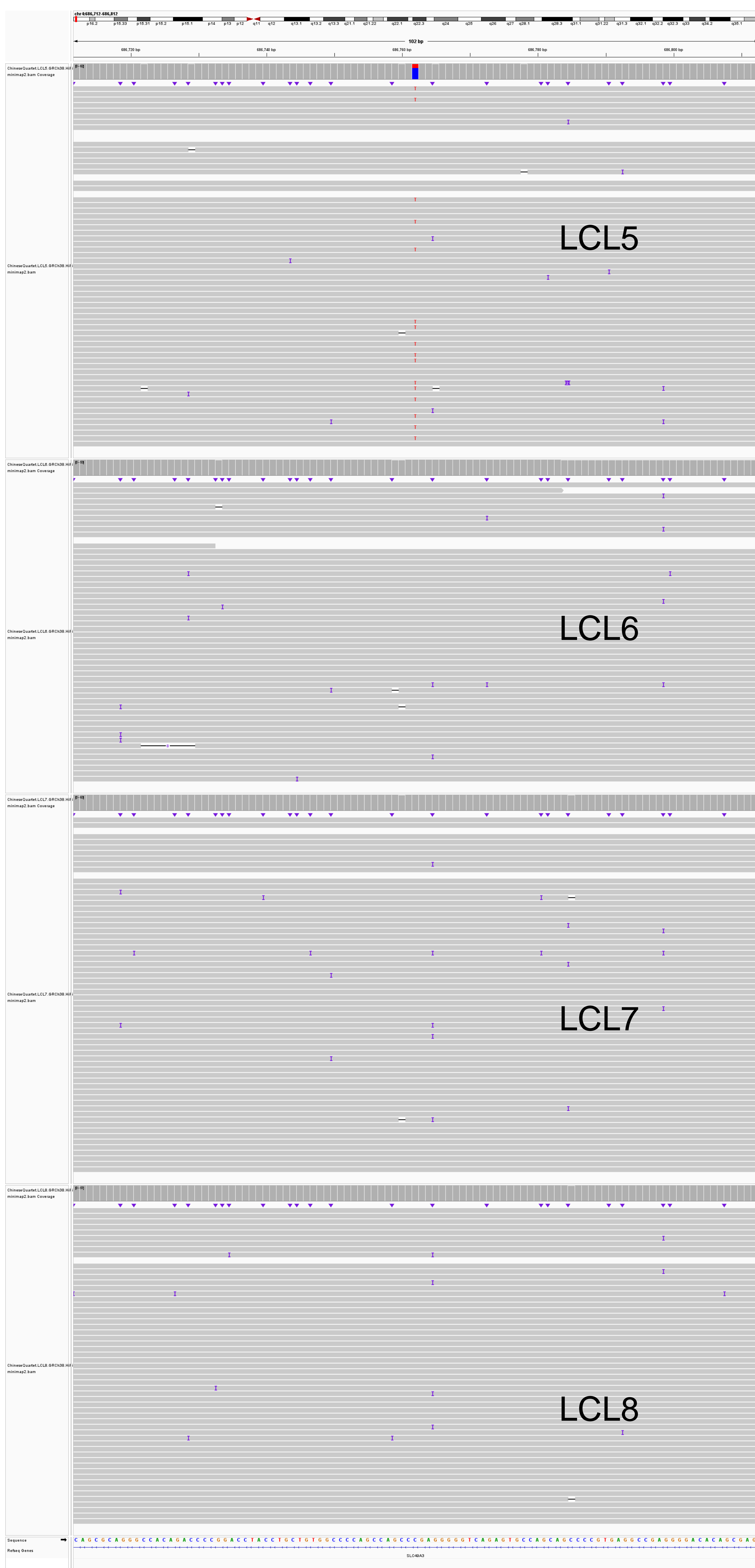


HiFi reads

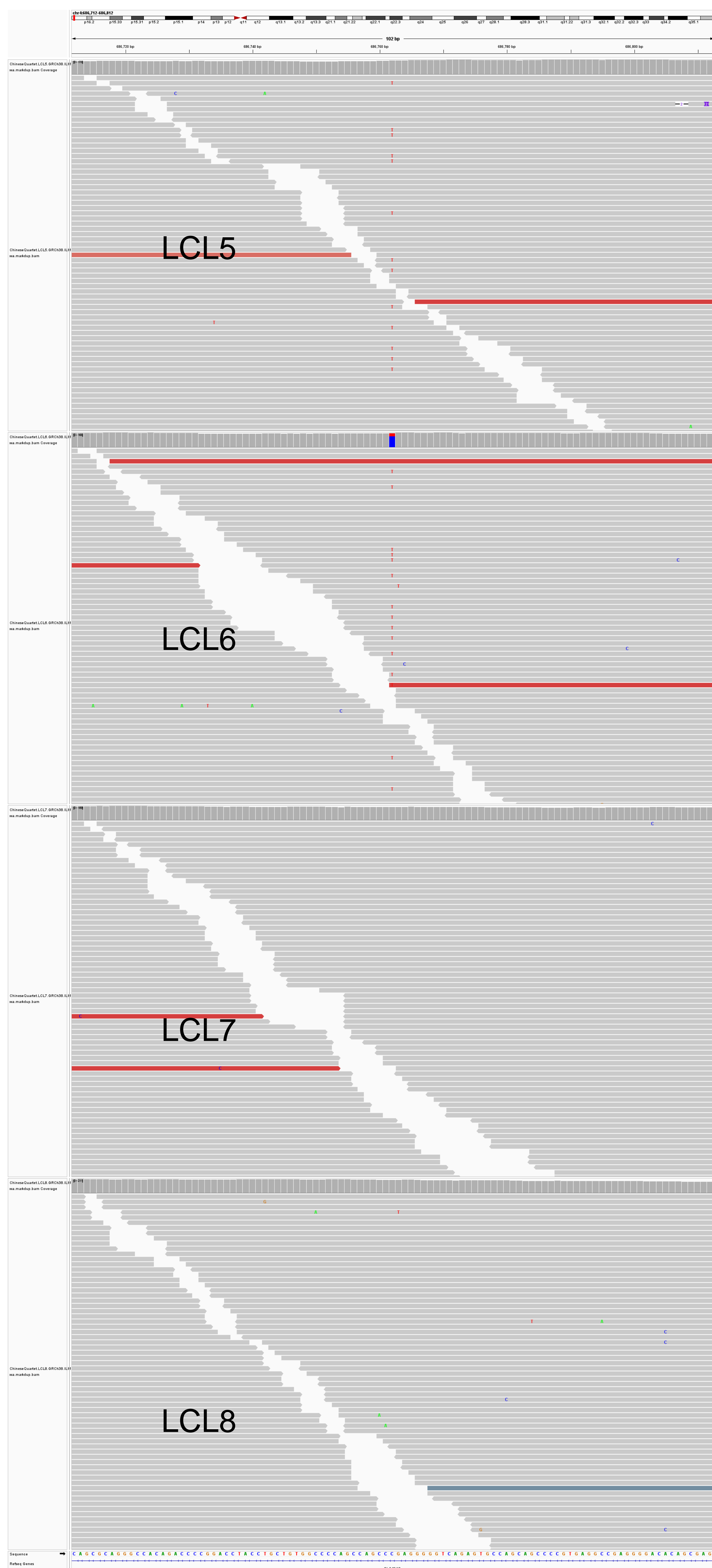


Illumina reads

# POS:chr4:686762 Report Somatic mutation by HiFi



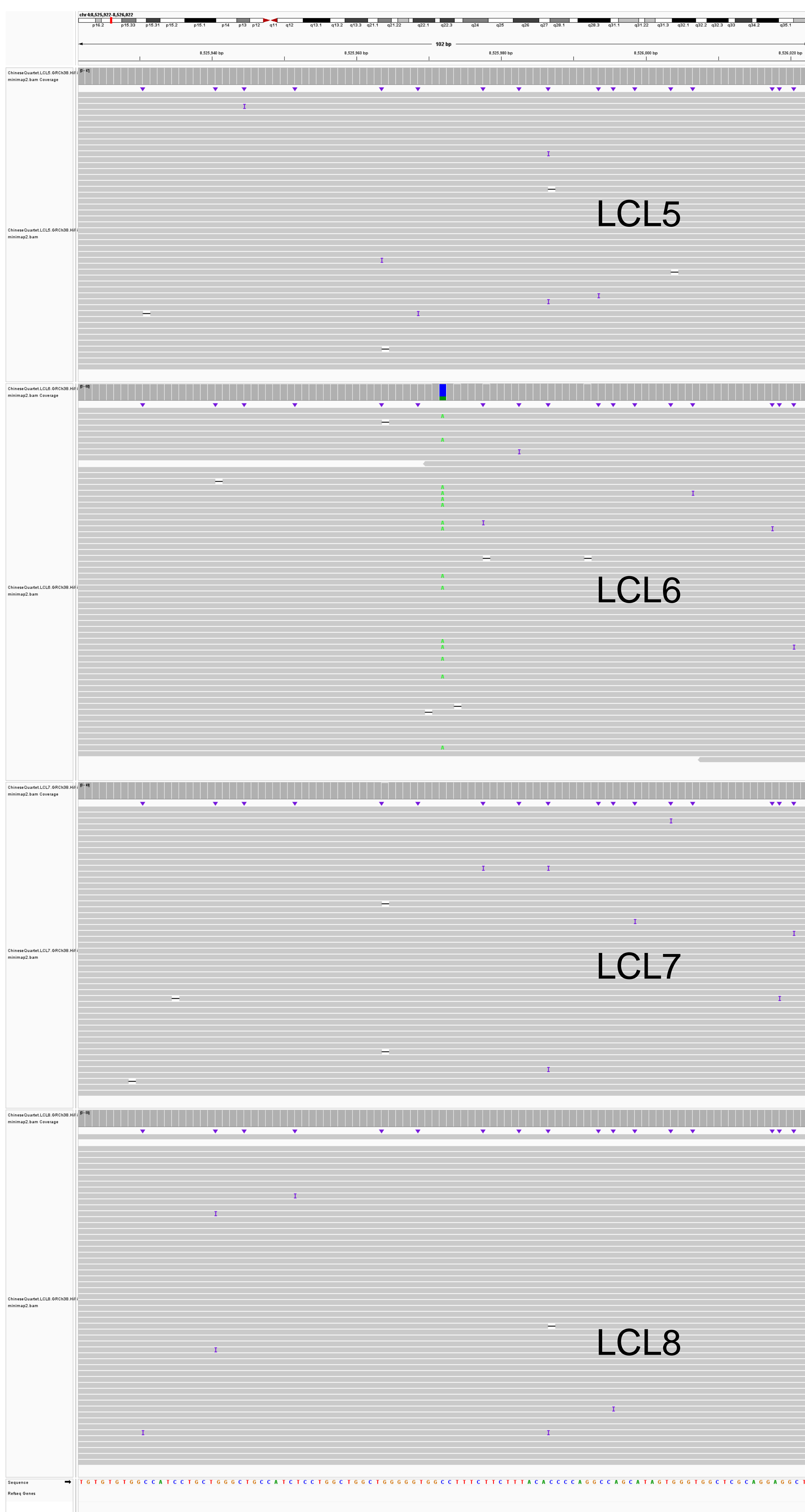
HiFi reads



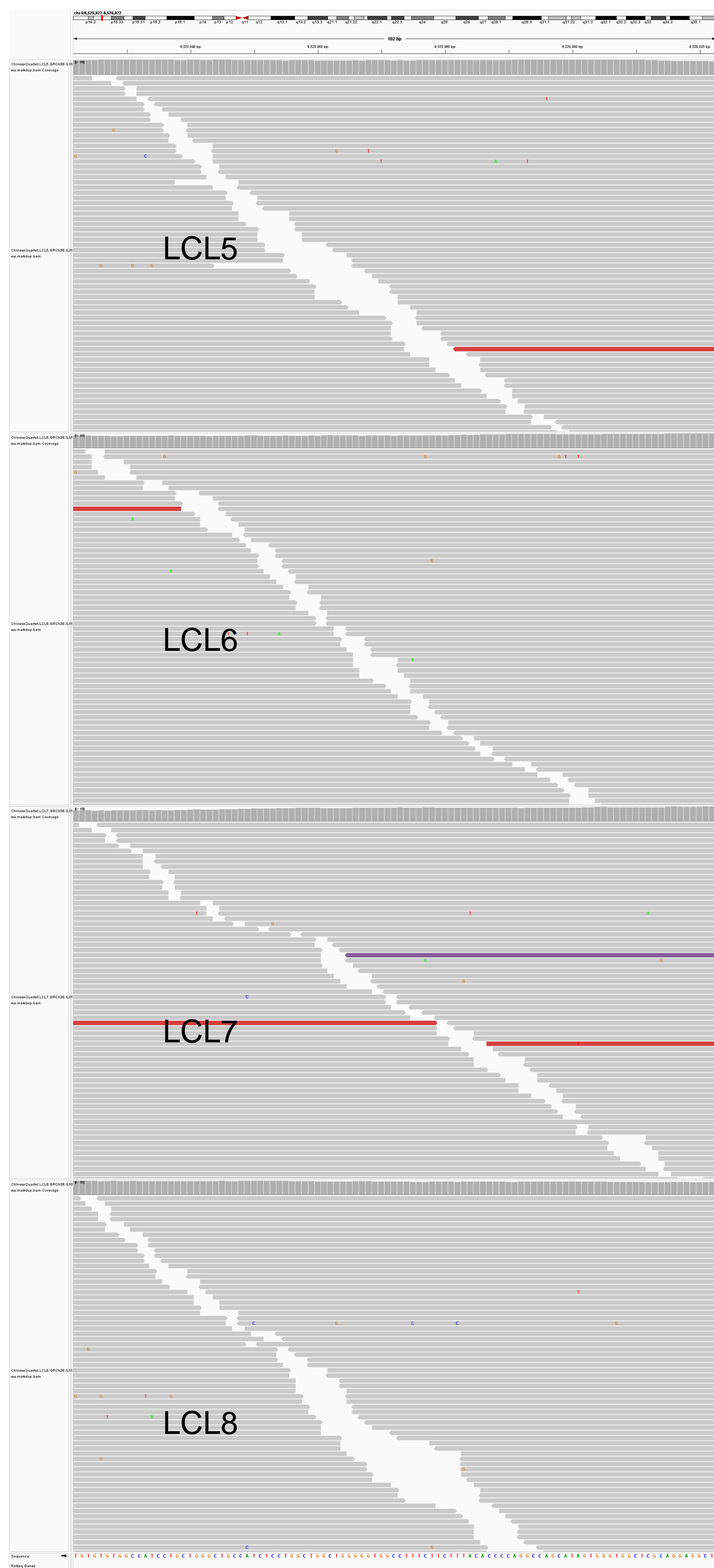
Illumina reads



# POS:chr4:8525972 Report Somatic mutation by HiFi

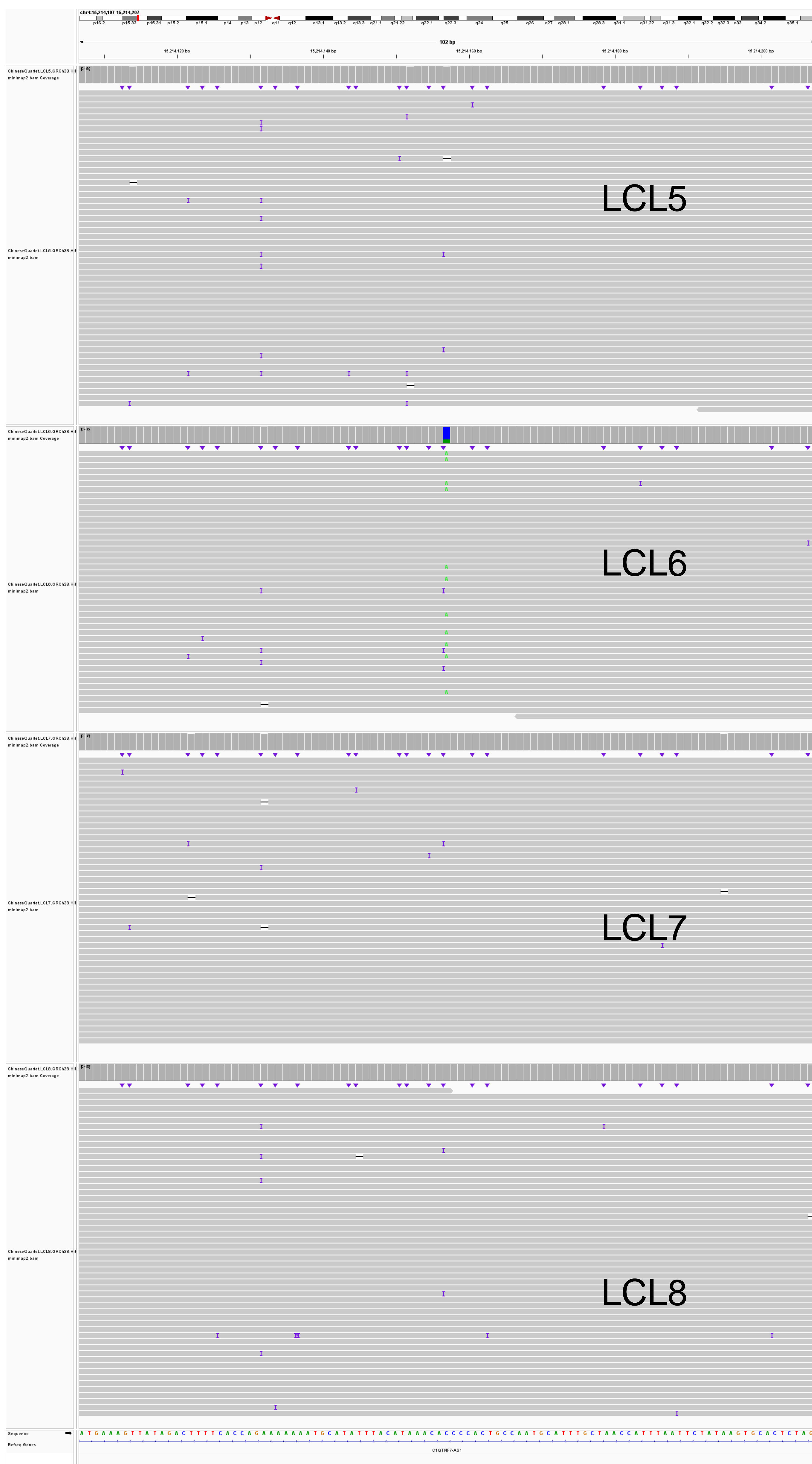


HiFi reads

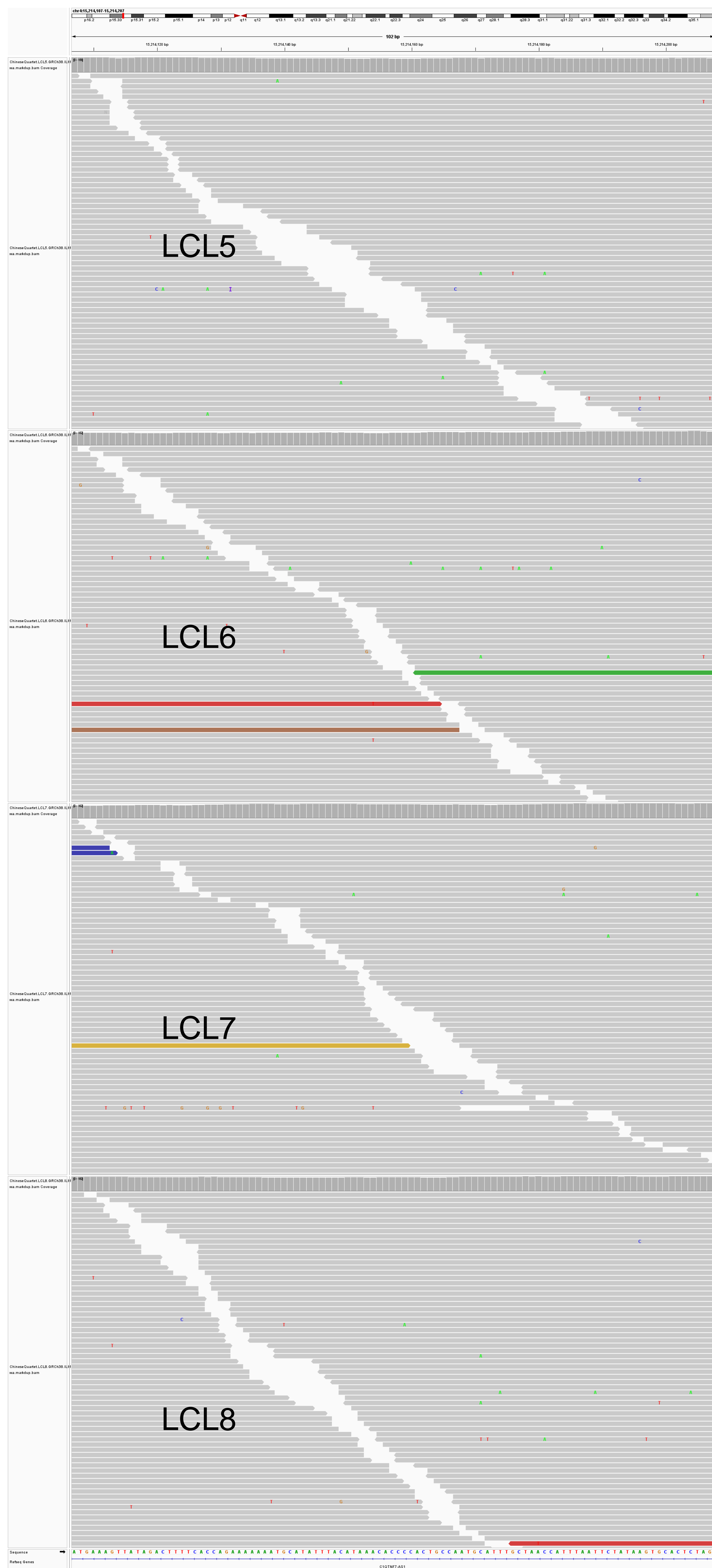


Illumina reads

# POS:chr4:15214157 Report Somatic mutation by HiFi

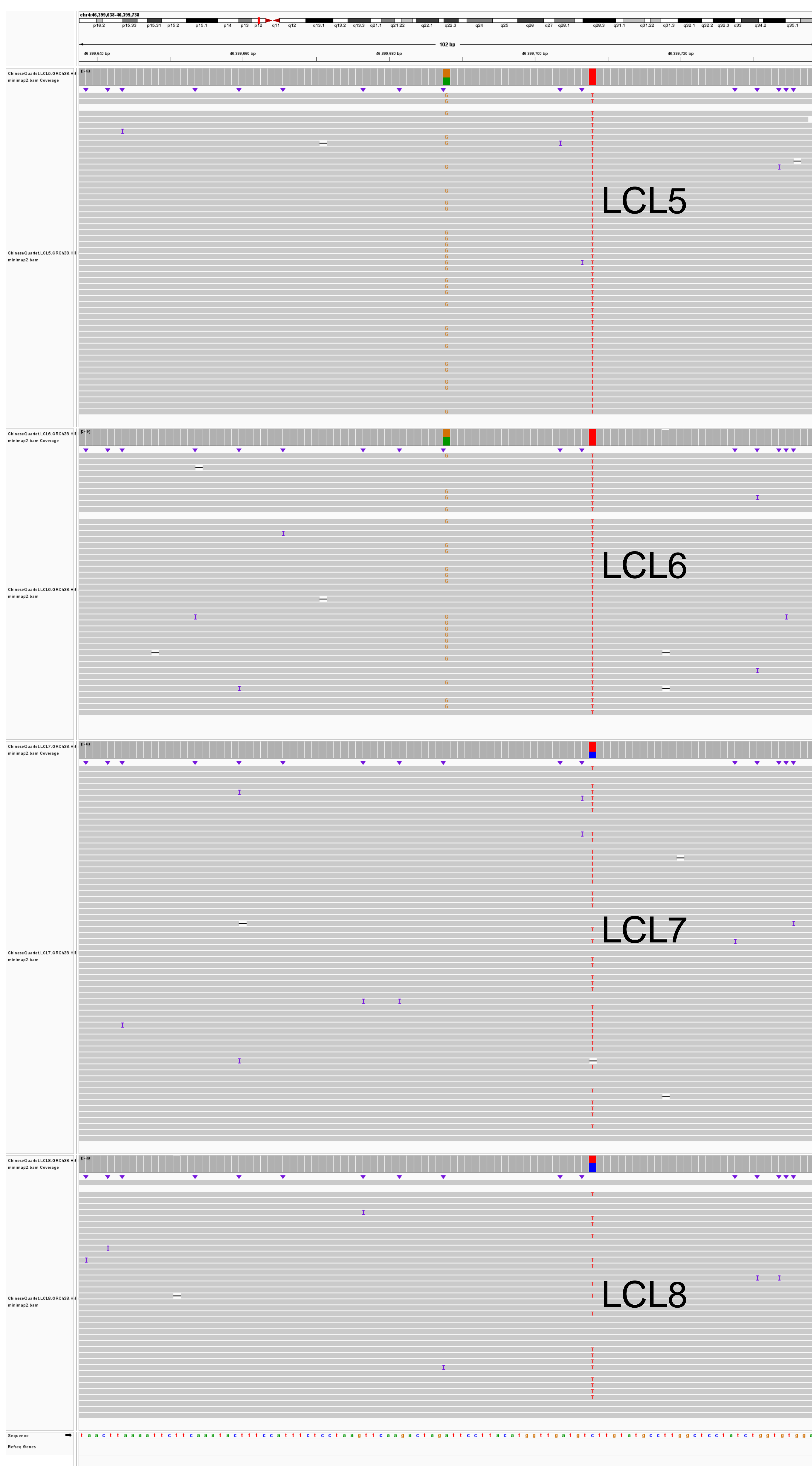


HiFi reads

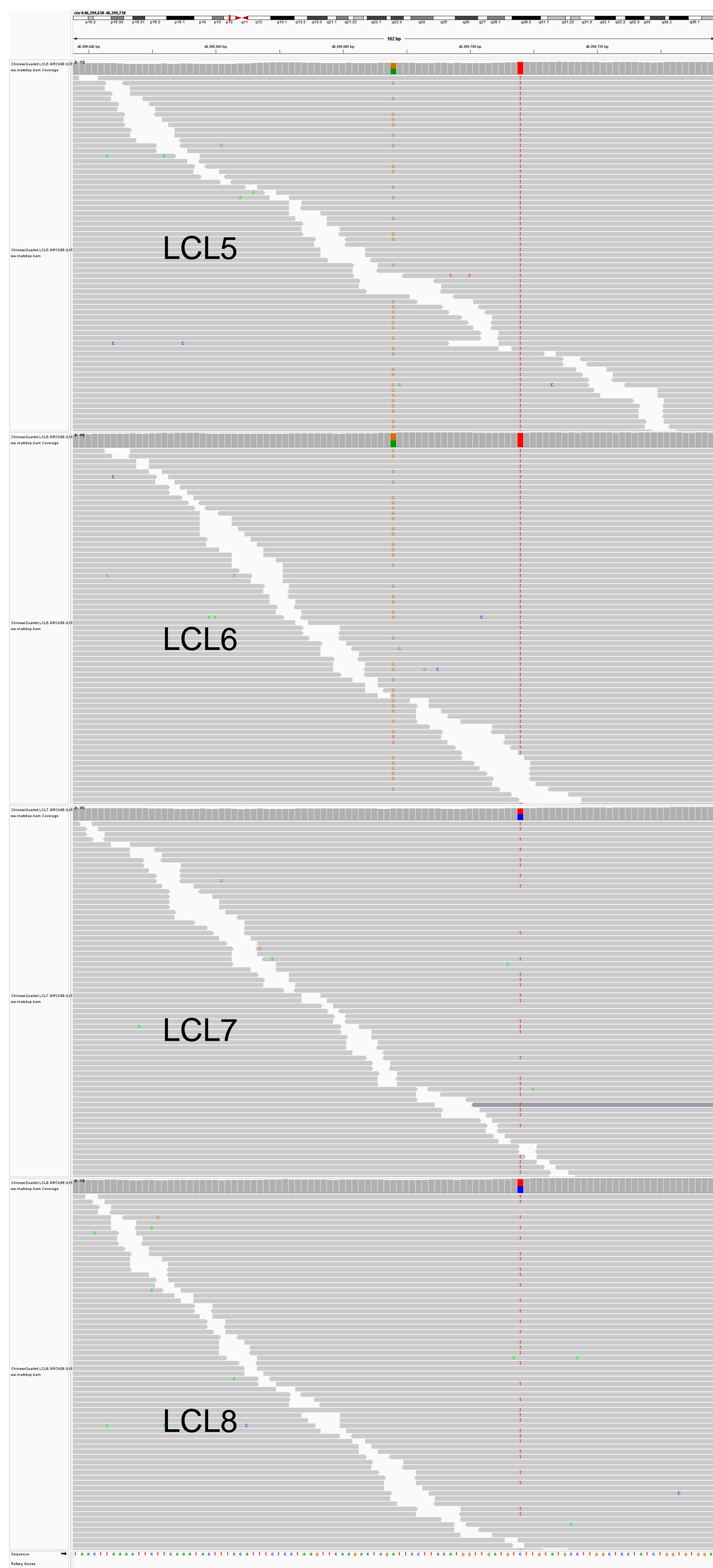


Illumina reads

# POS:chr4:46399688 Report DeNovo mutation by ILM

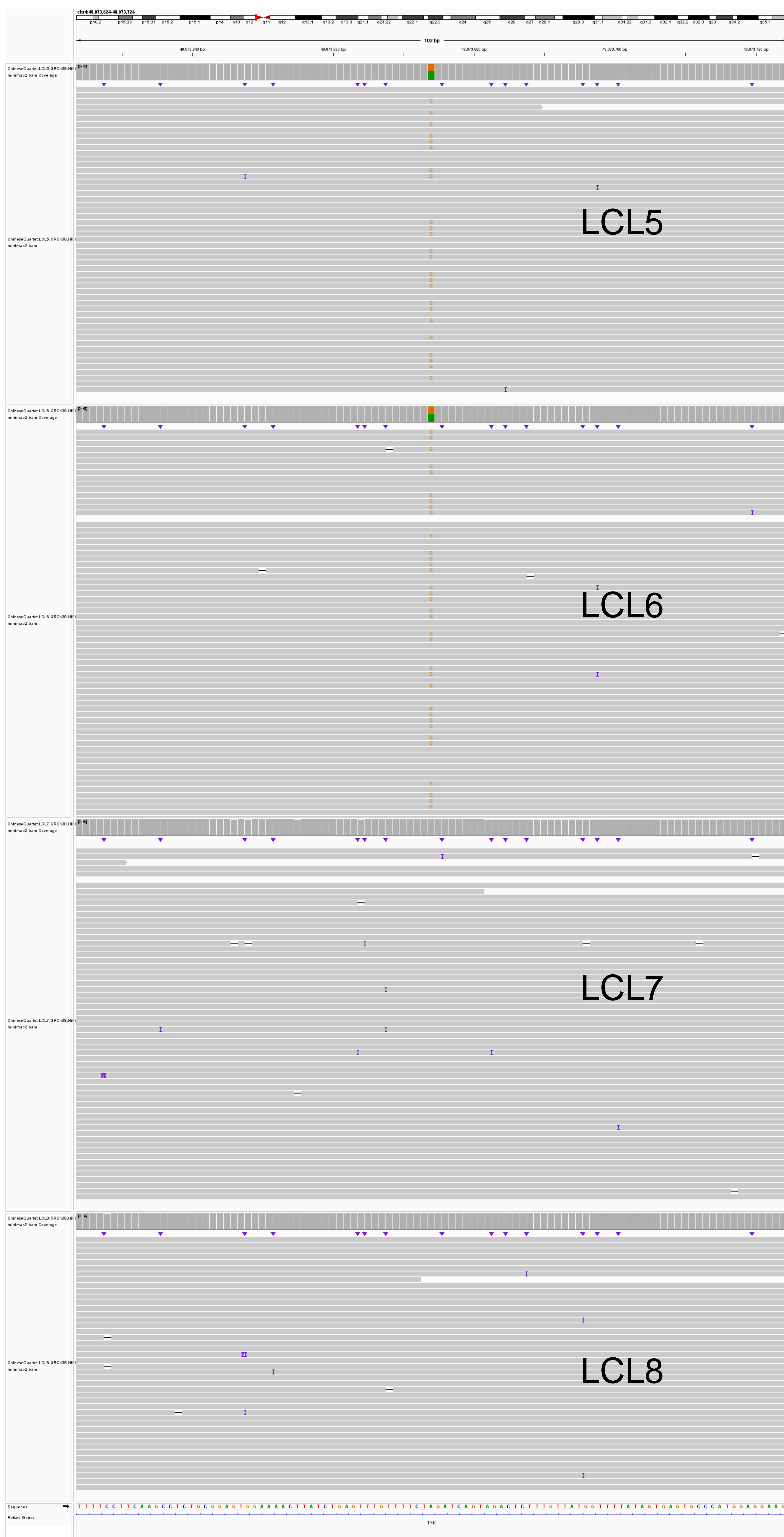


HiFi reads

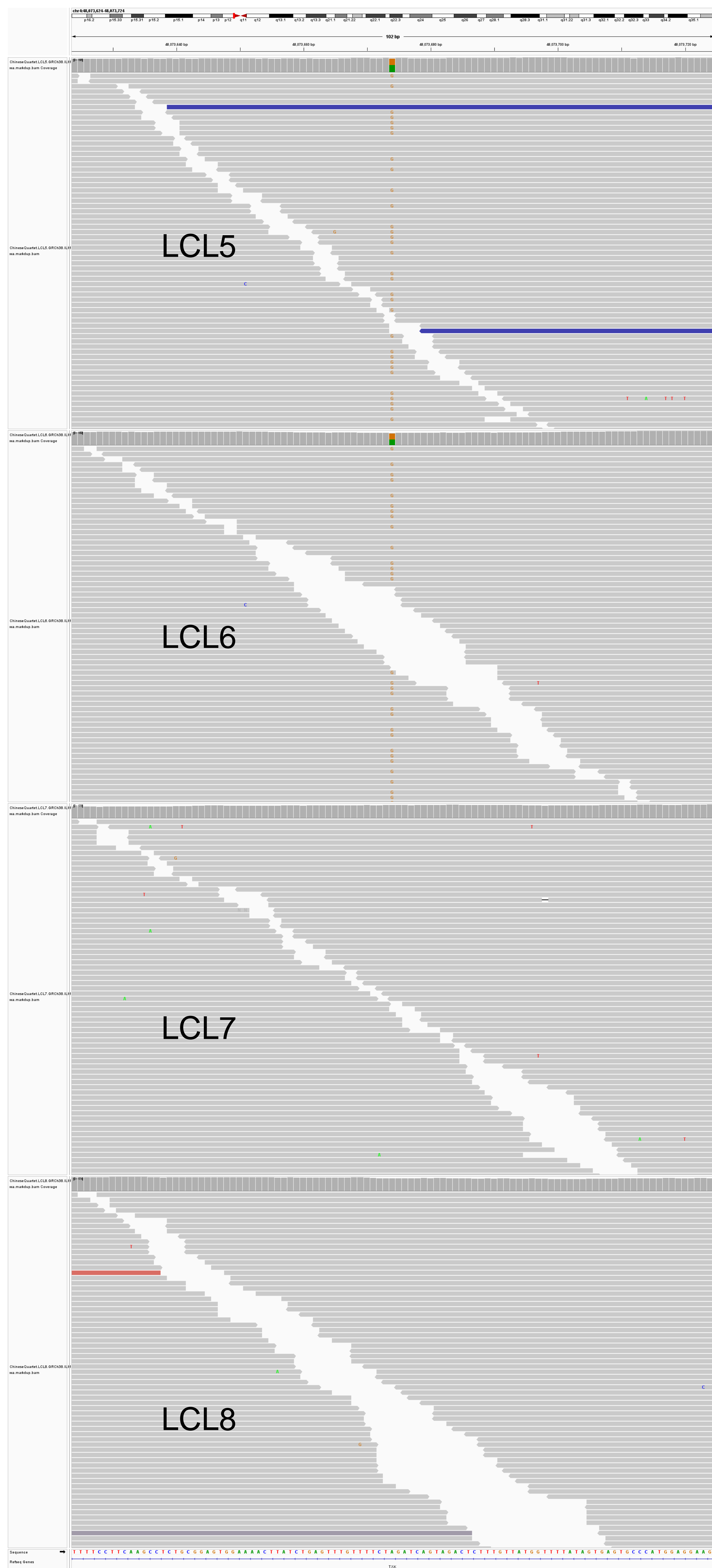


Illumina reads

# POS:chr4:48073674 Report DeNovo mutation by ILM



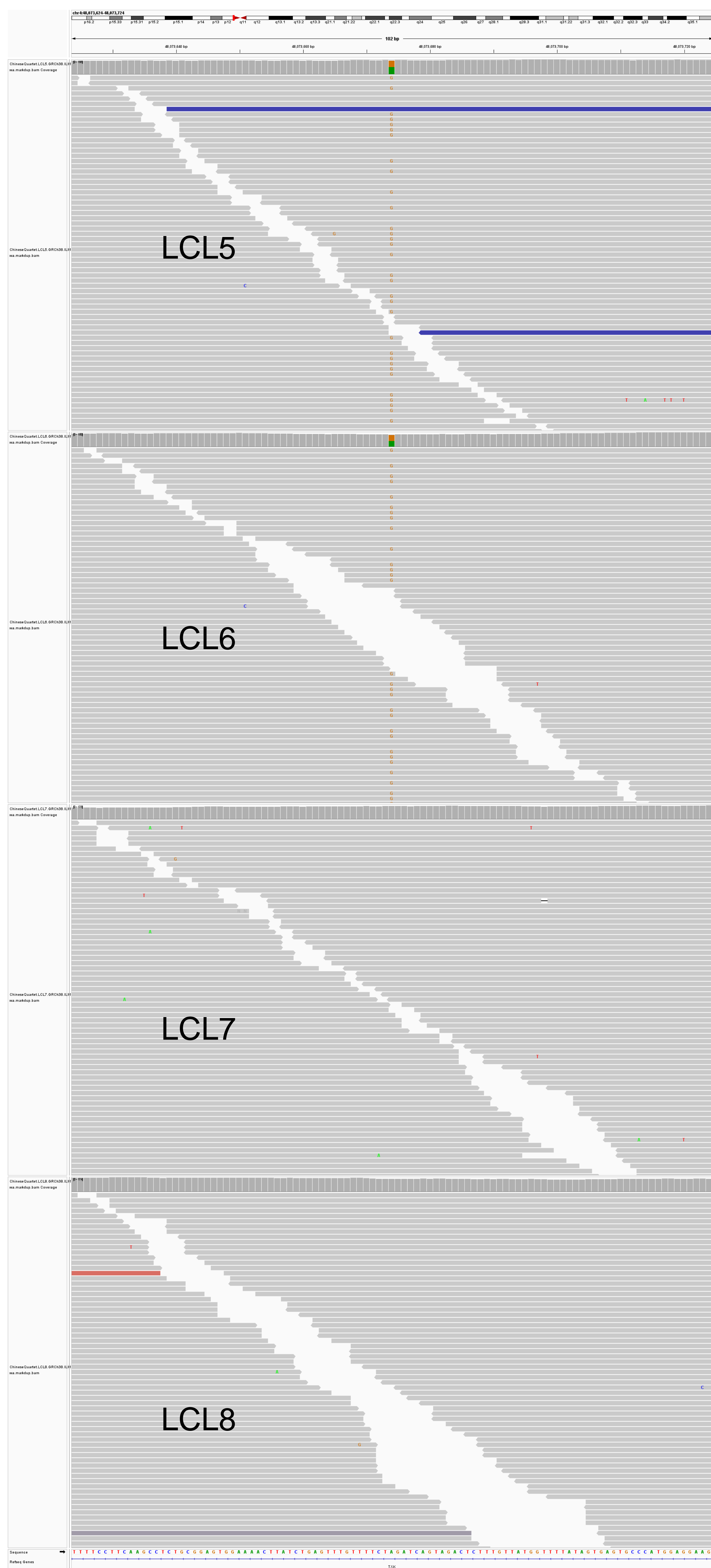
HiFi reads



Illumina reads



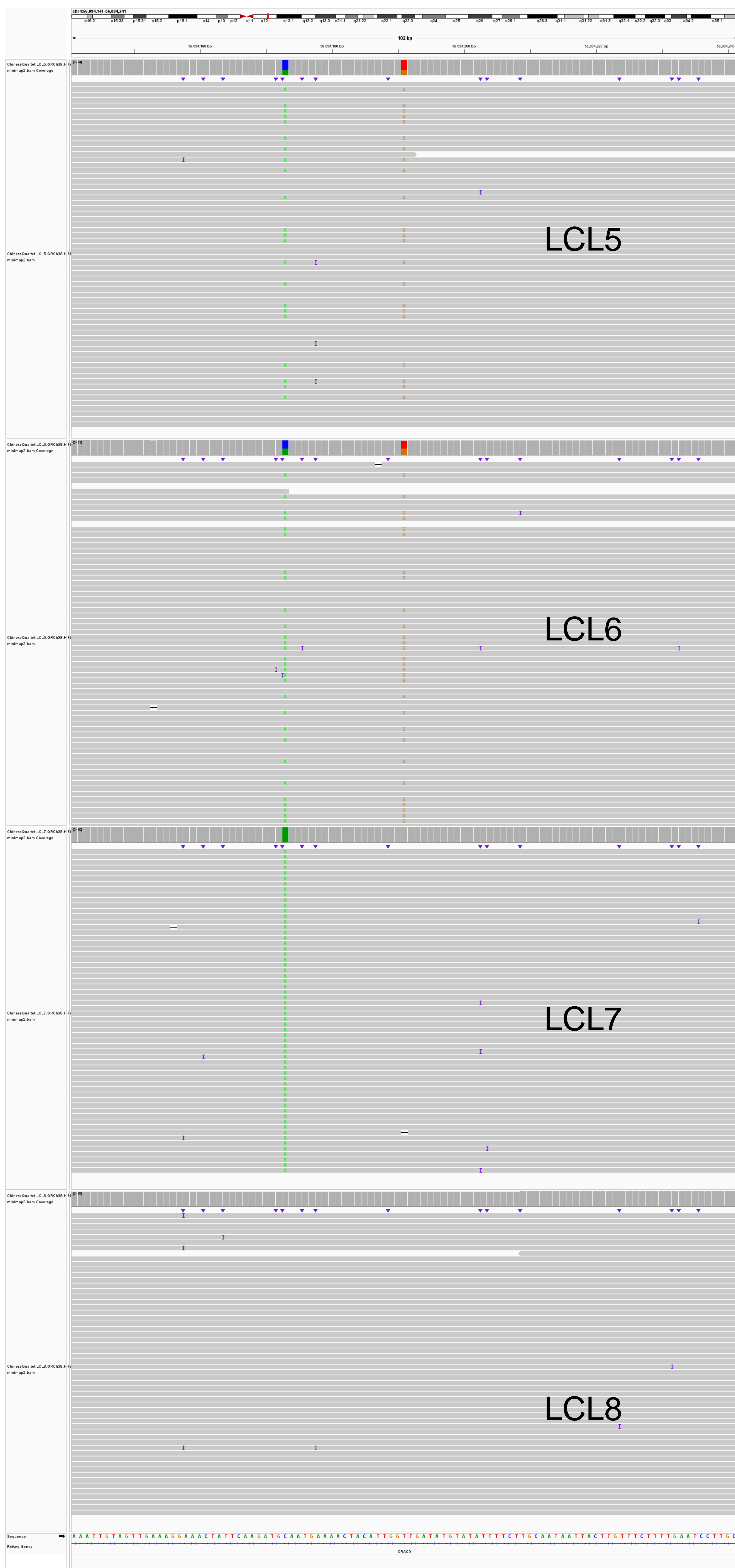
# POS:chr4:48073674 Report DeNovo mutation by HiFi



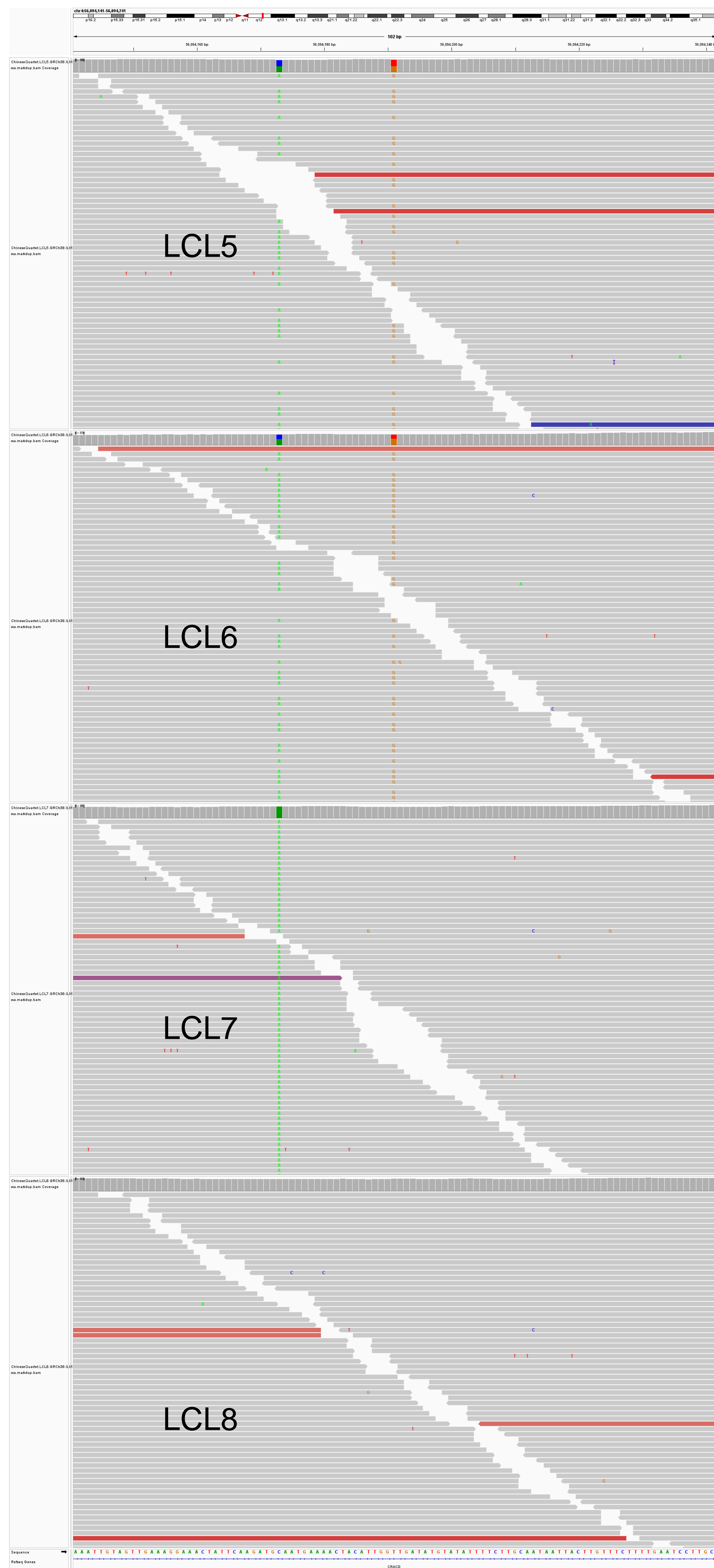
HiFi reads

Illumina reads

# POS:chr4:56094191 Report DeNovo mutation by ILM

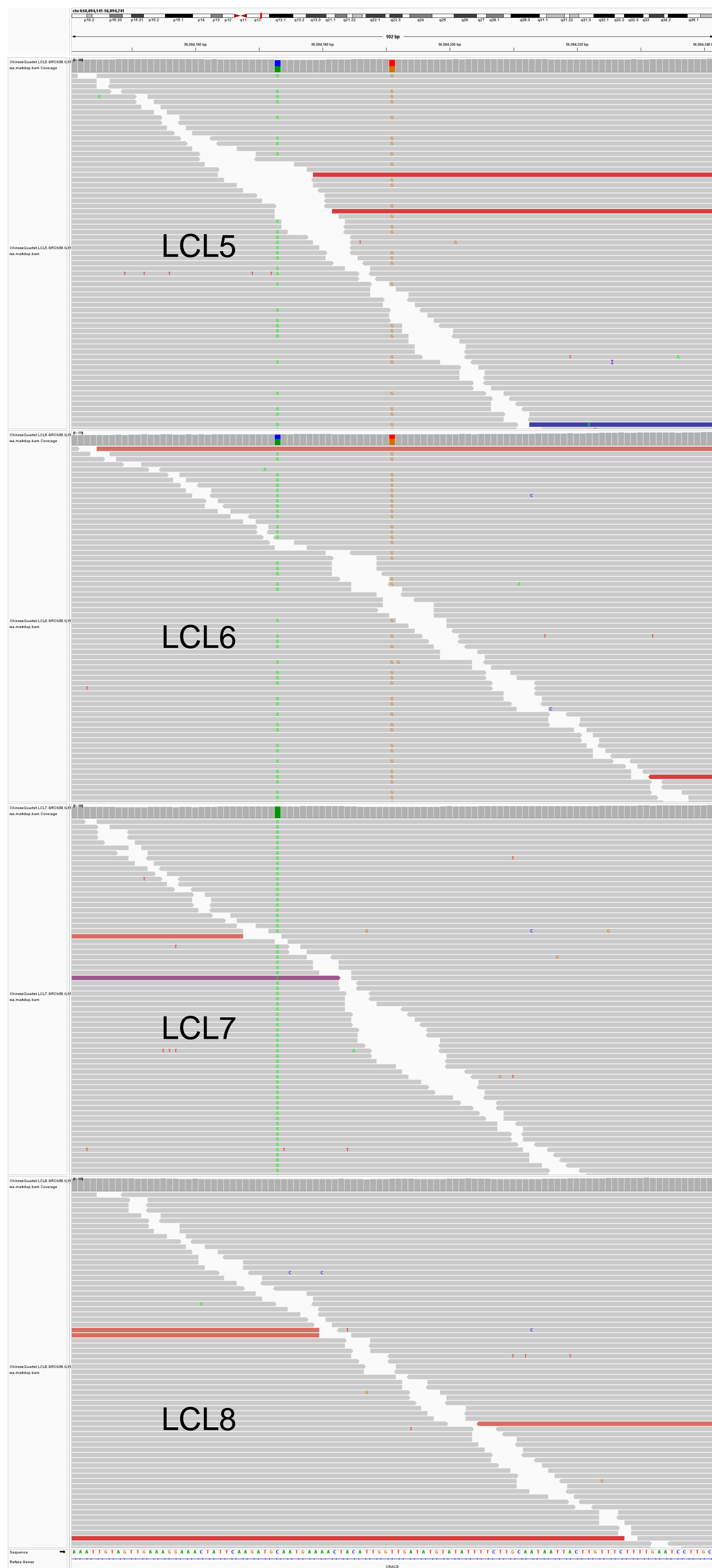
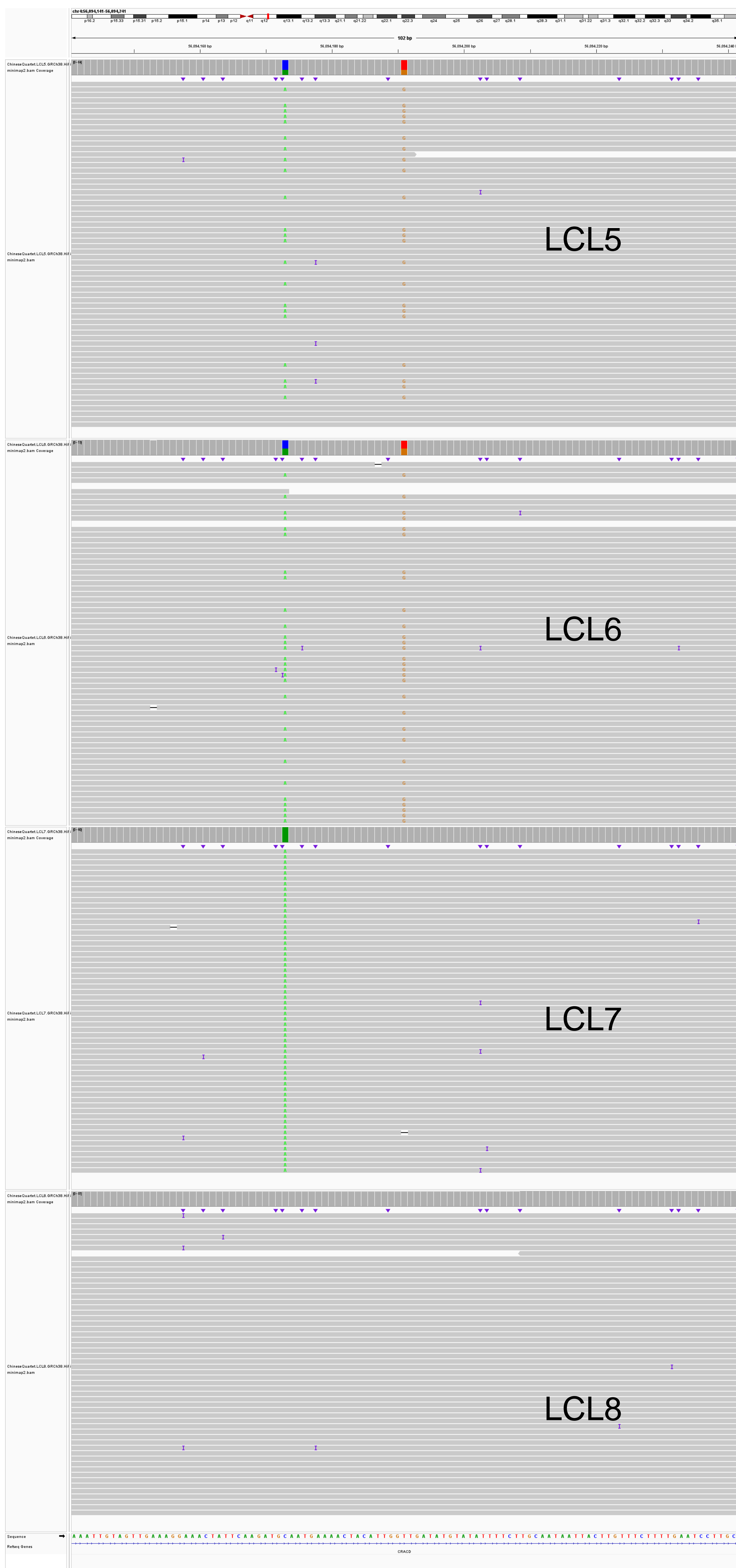


HiFi reads



Illumina reads

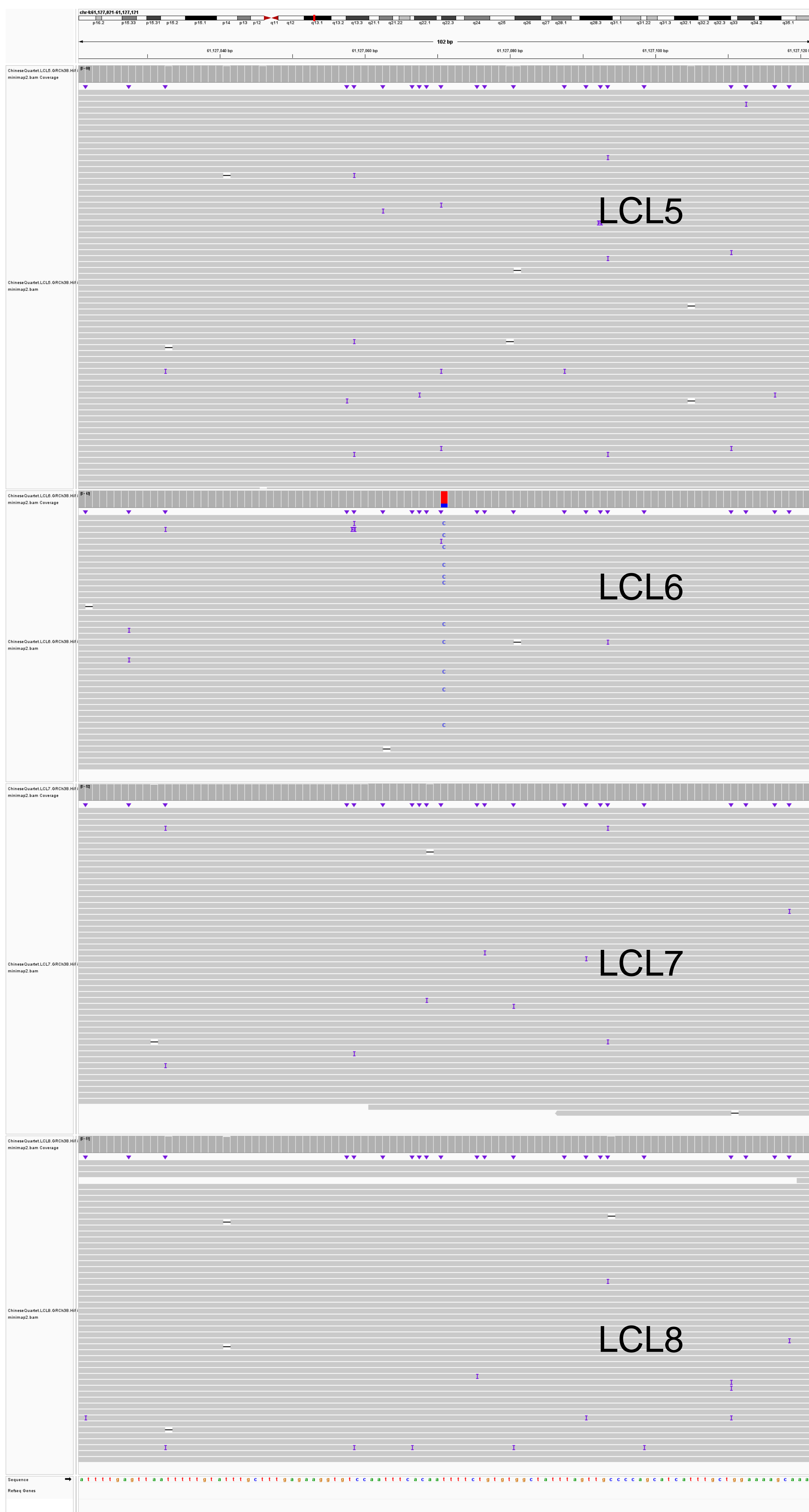
# POS:chr4:56094191 Report DeNovo mutation by HiFi



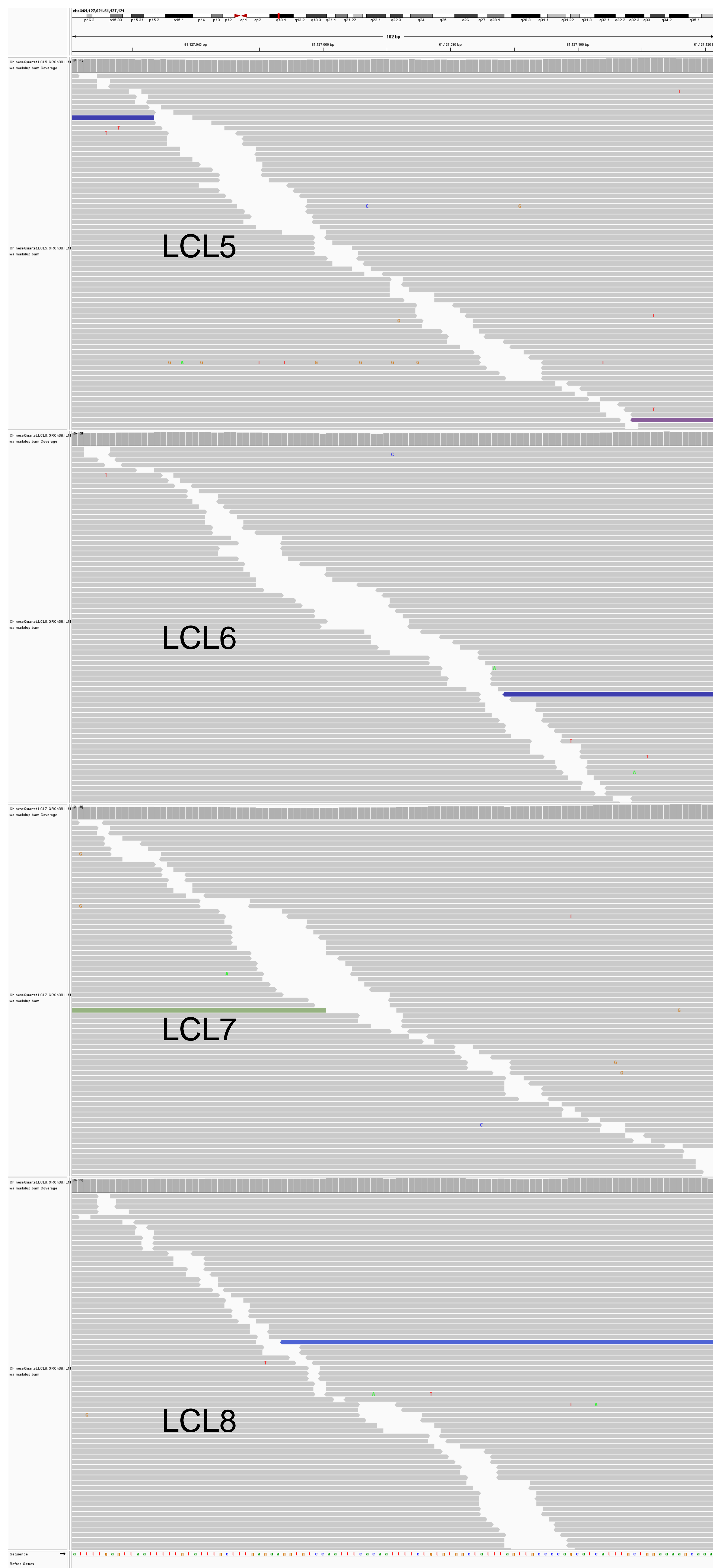
HiFi reads

Illumina reads

# POS:chr4:61127071 Report Somatic mutation by HiFi



HiFi reads



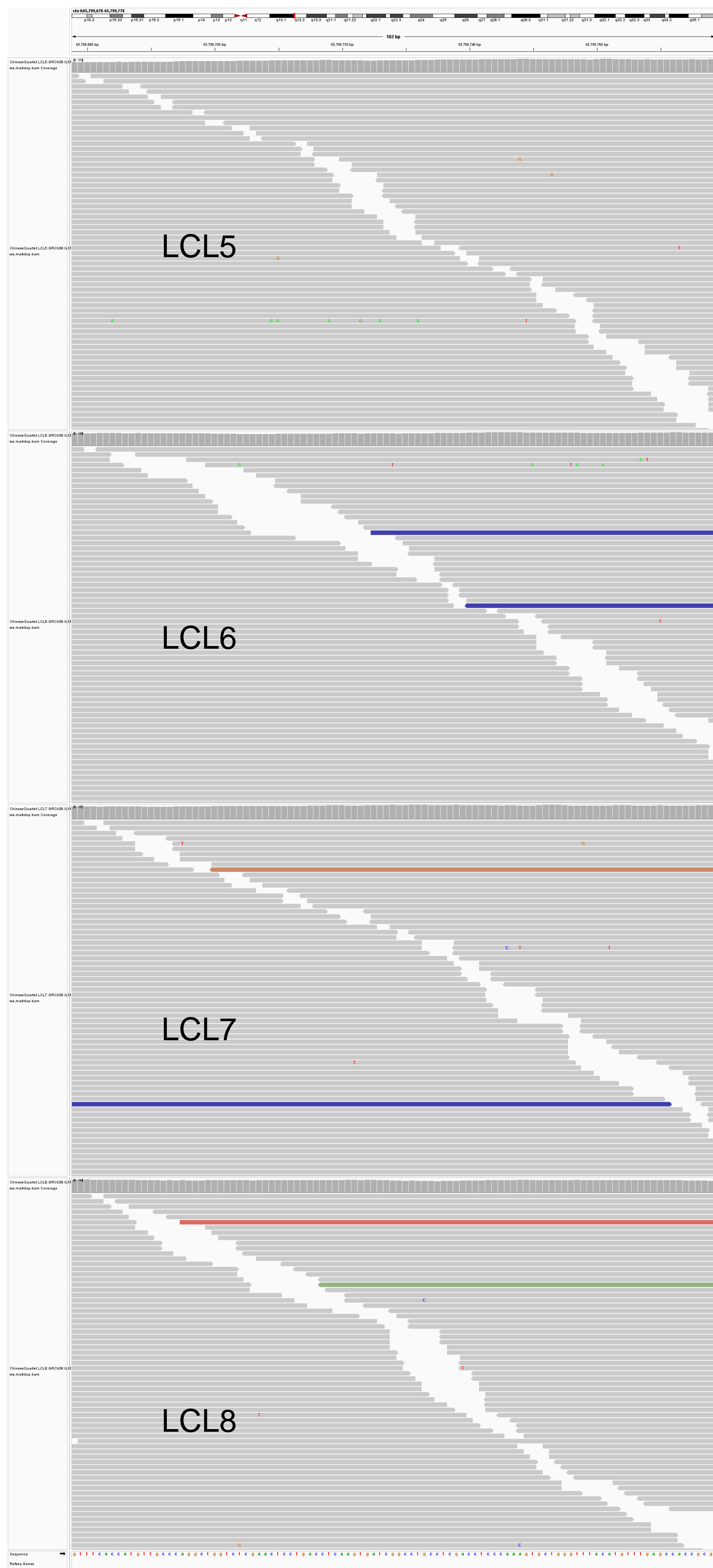
Illumina reads



# POS:chr4:65799728 Report Somatic mutation by HiFi

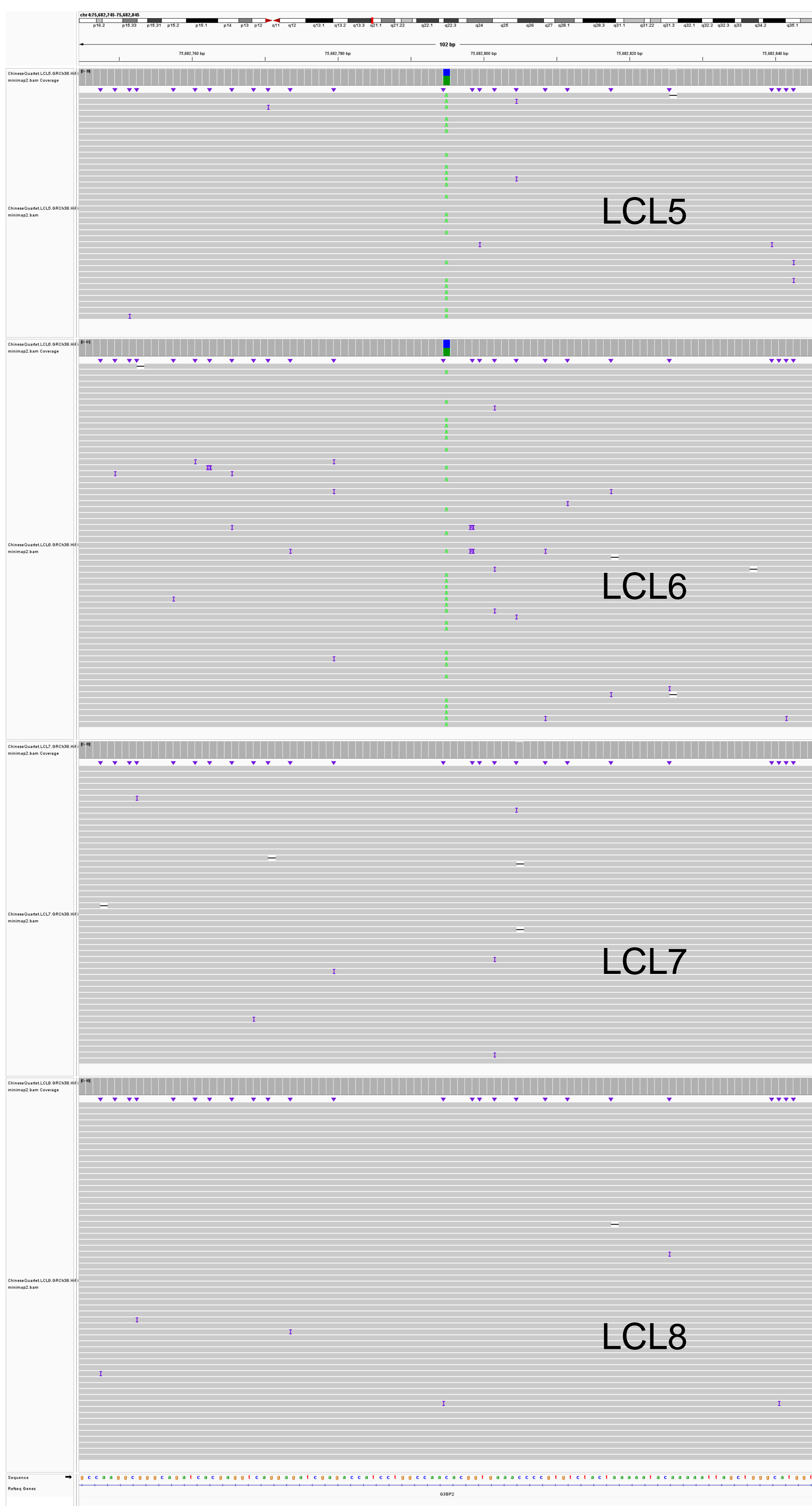


HiFi reads

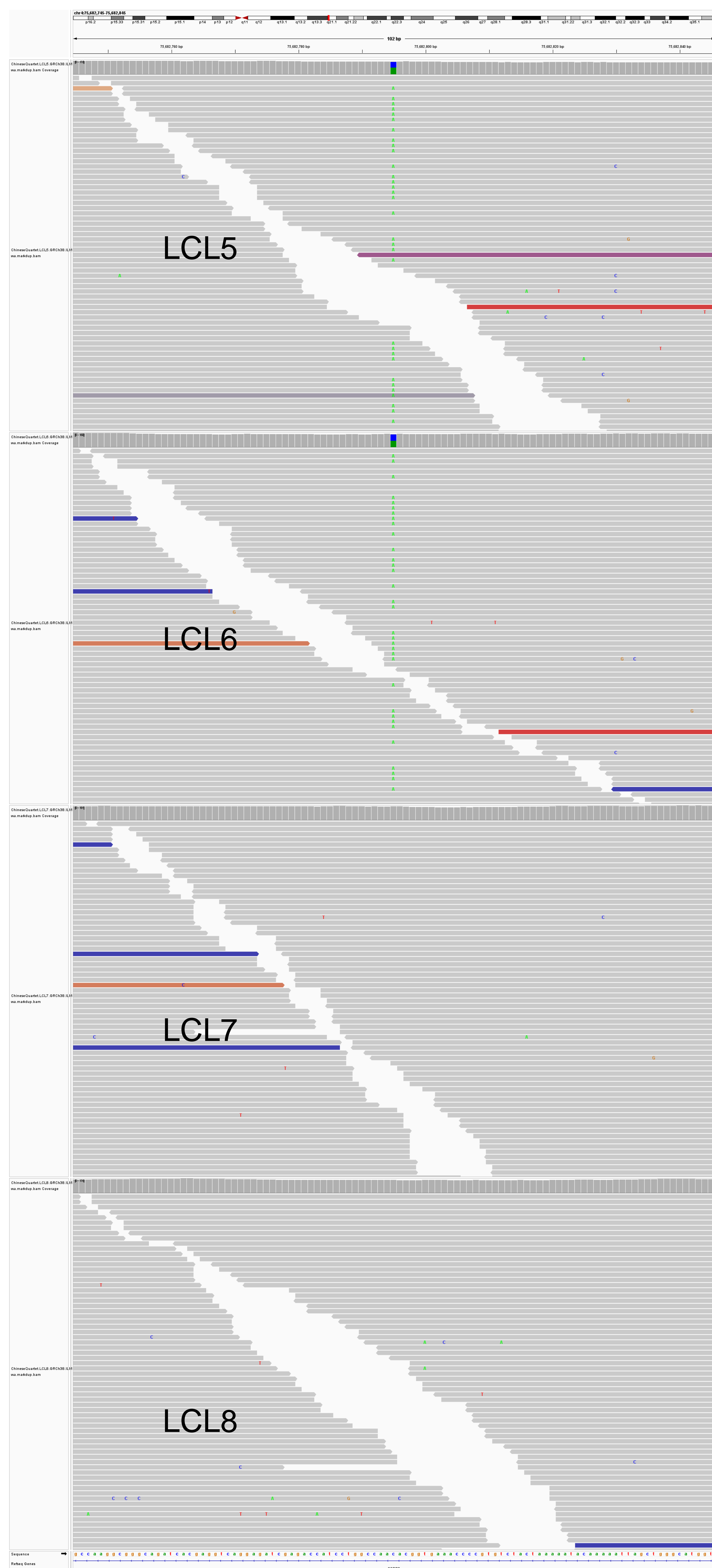


Illumina reads

# POS:chr4:75682795 Report DeNovo mutation by ILM

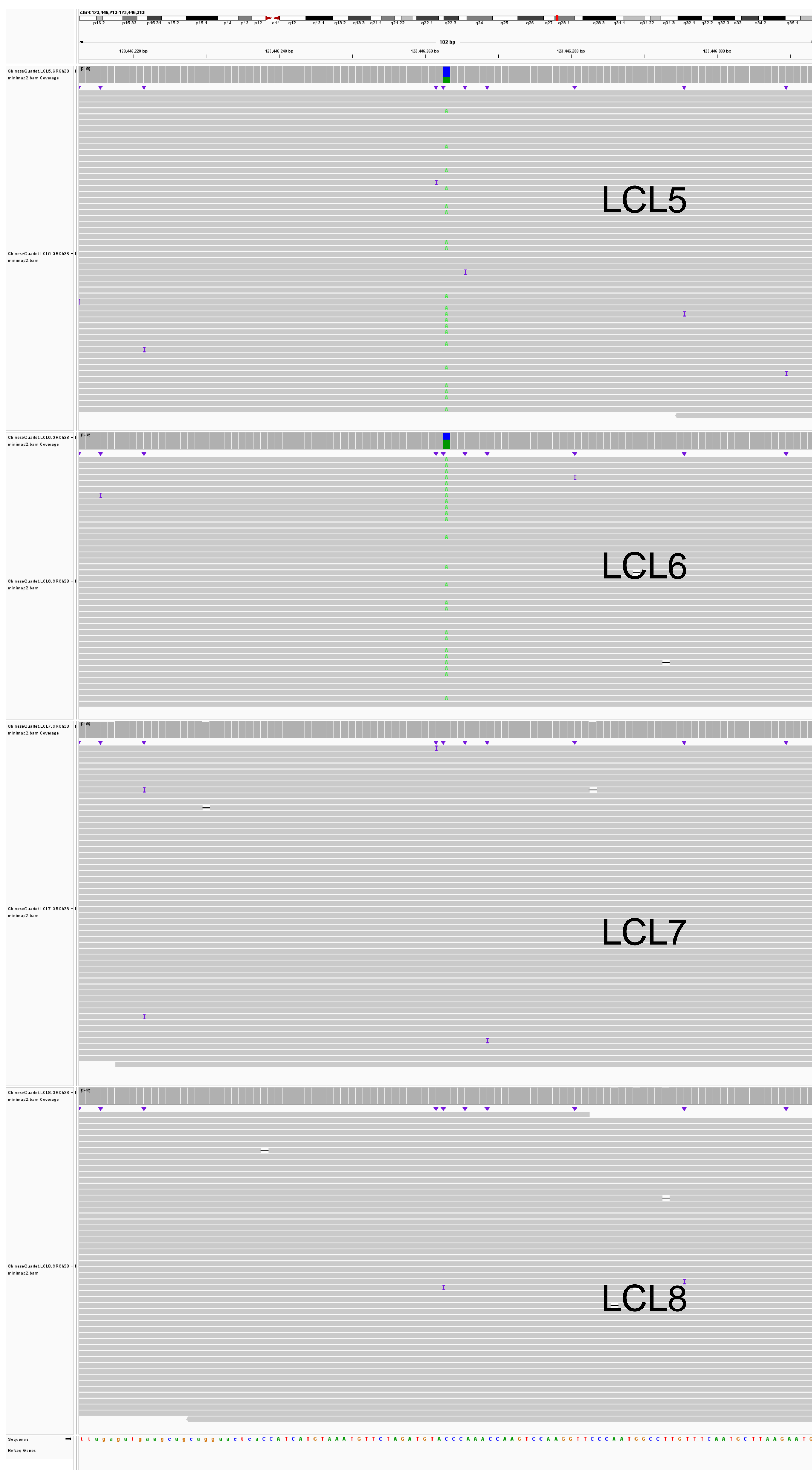


HiFi reads

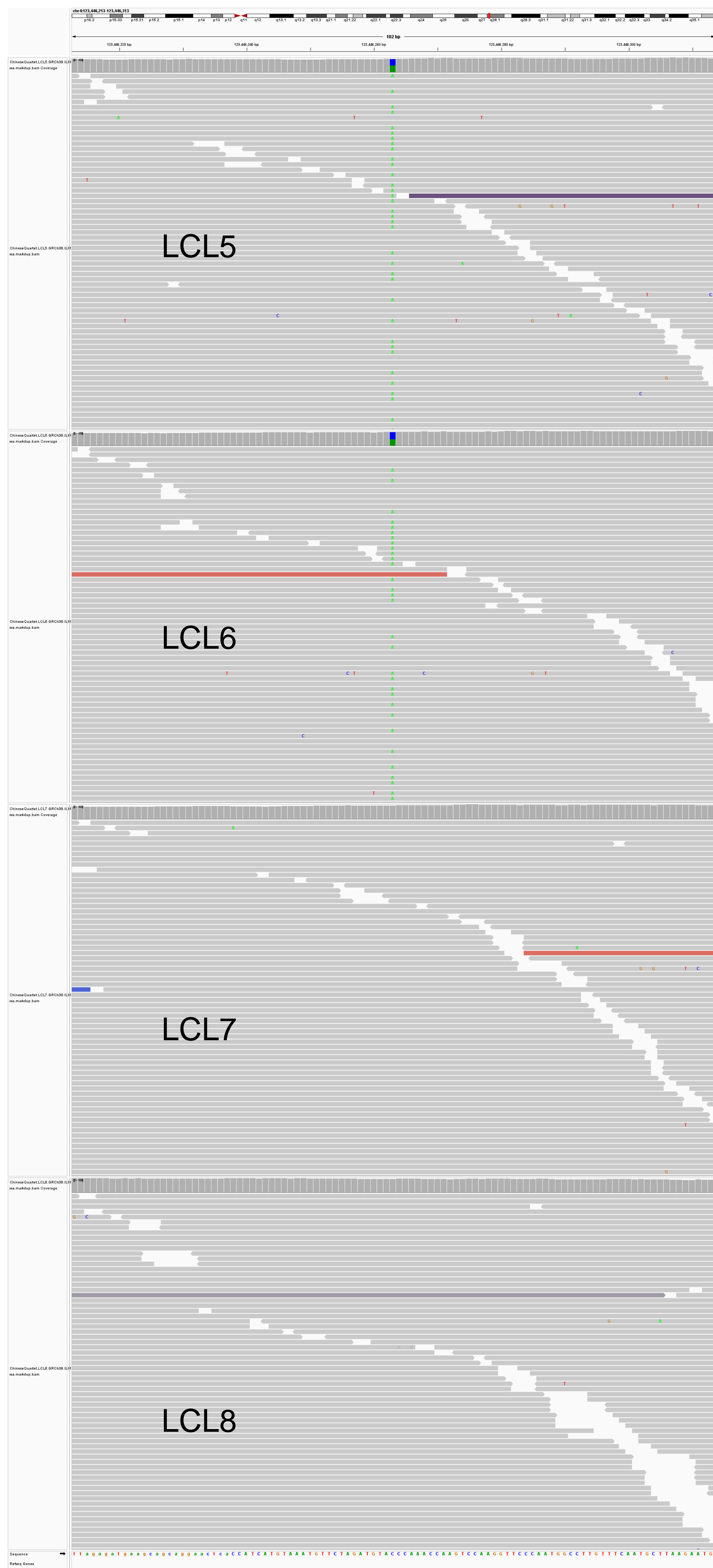


Illumina reads

# POS:chr4:123446263 Report DeNovo mutation by ILM

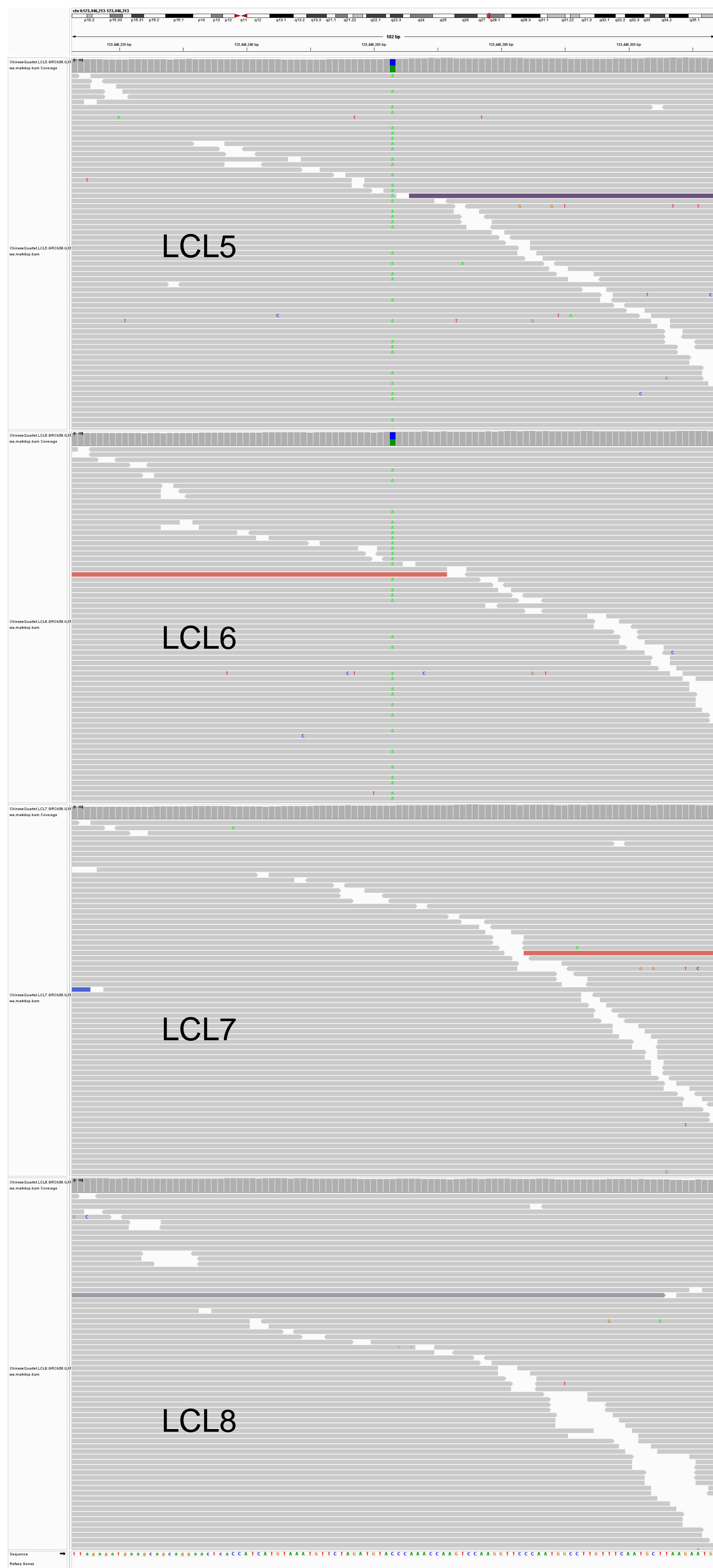
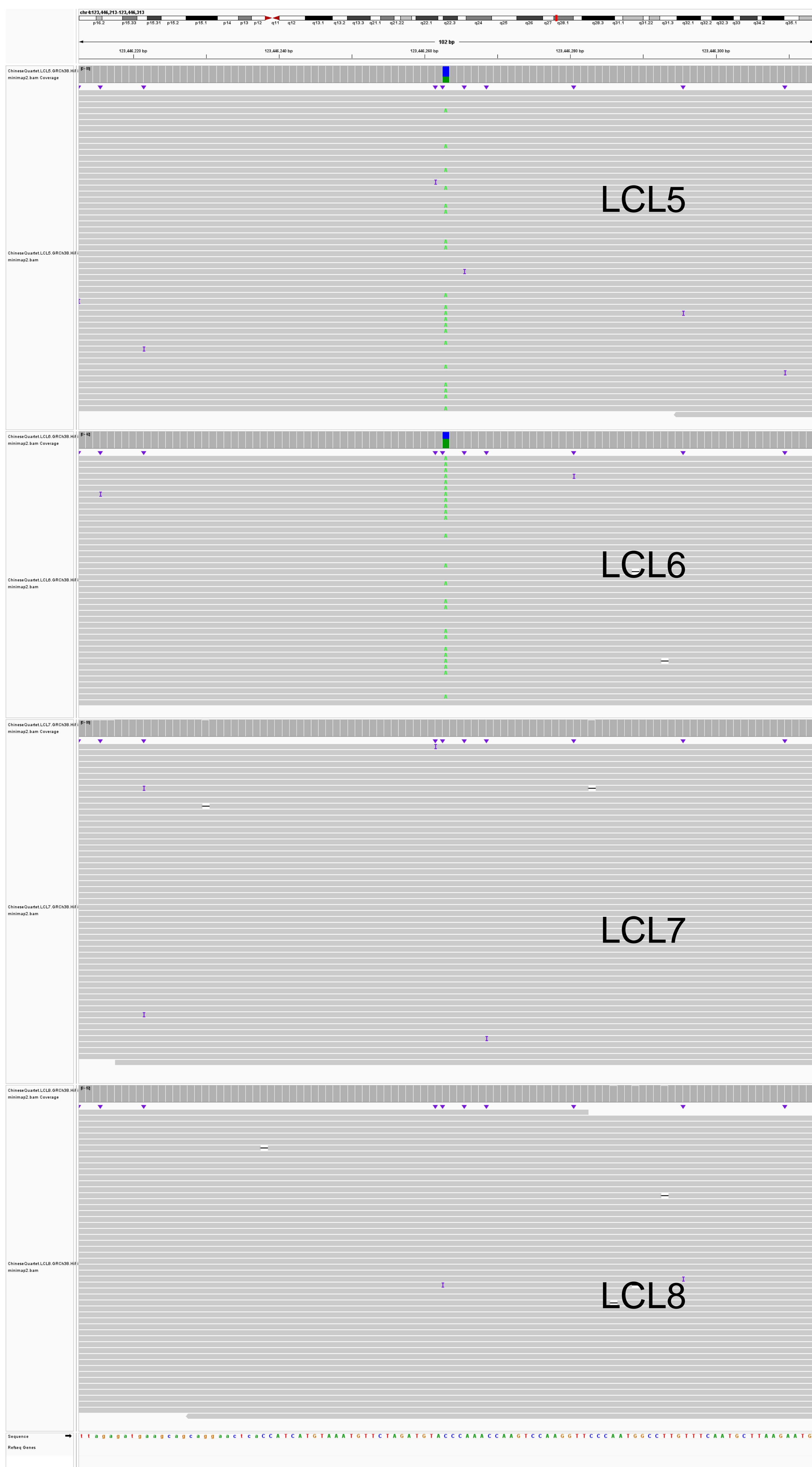


HiFi reads



Illumina reads

# POS:chr4:123446263 Report DeNovo mutation by HiFi

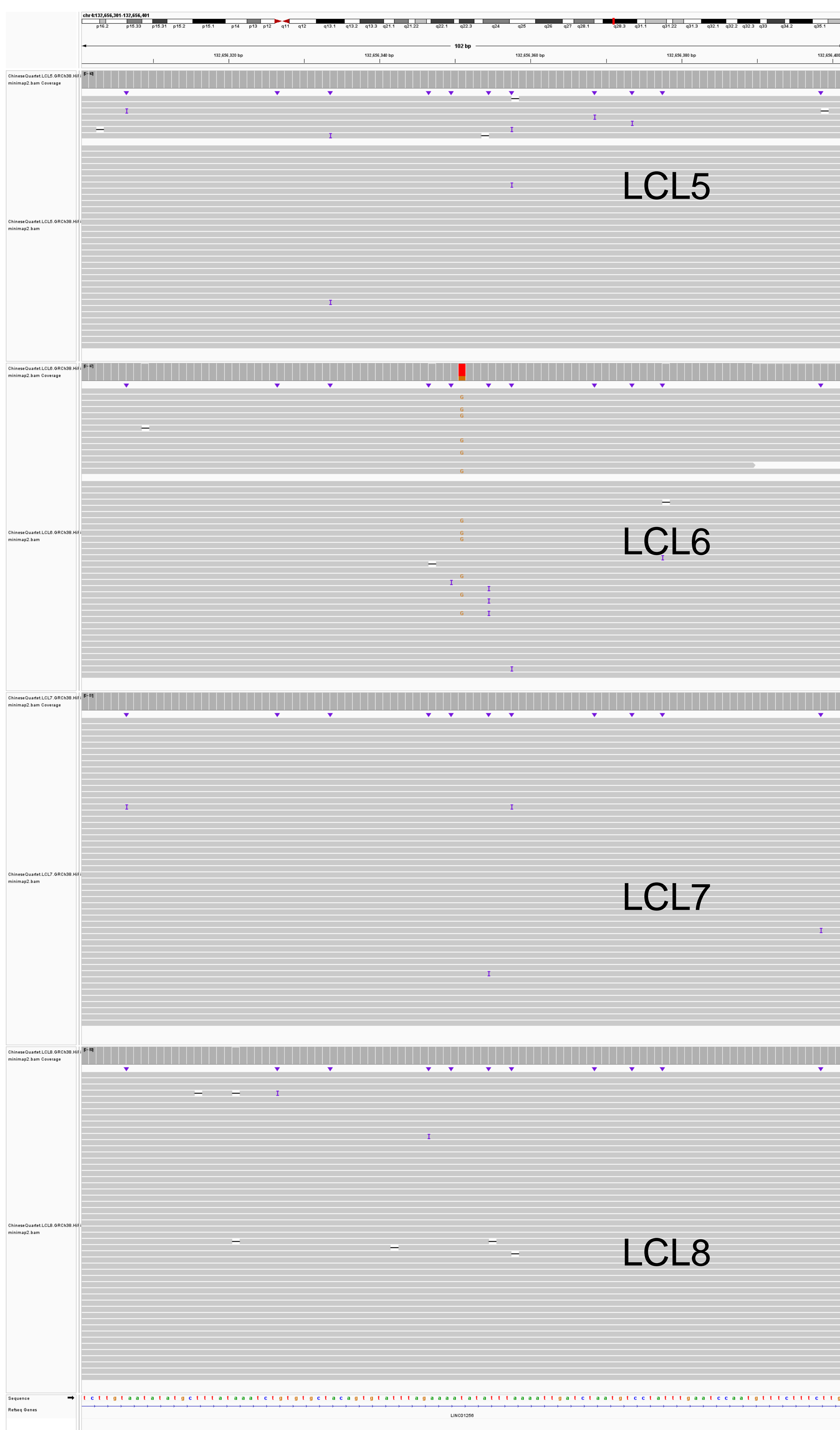


HiFi reads

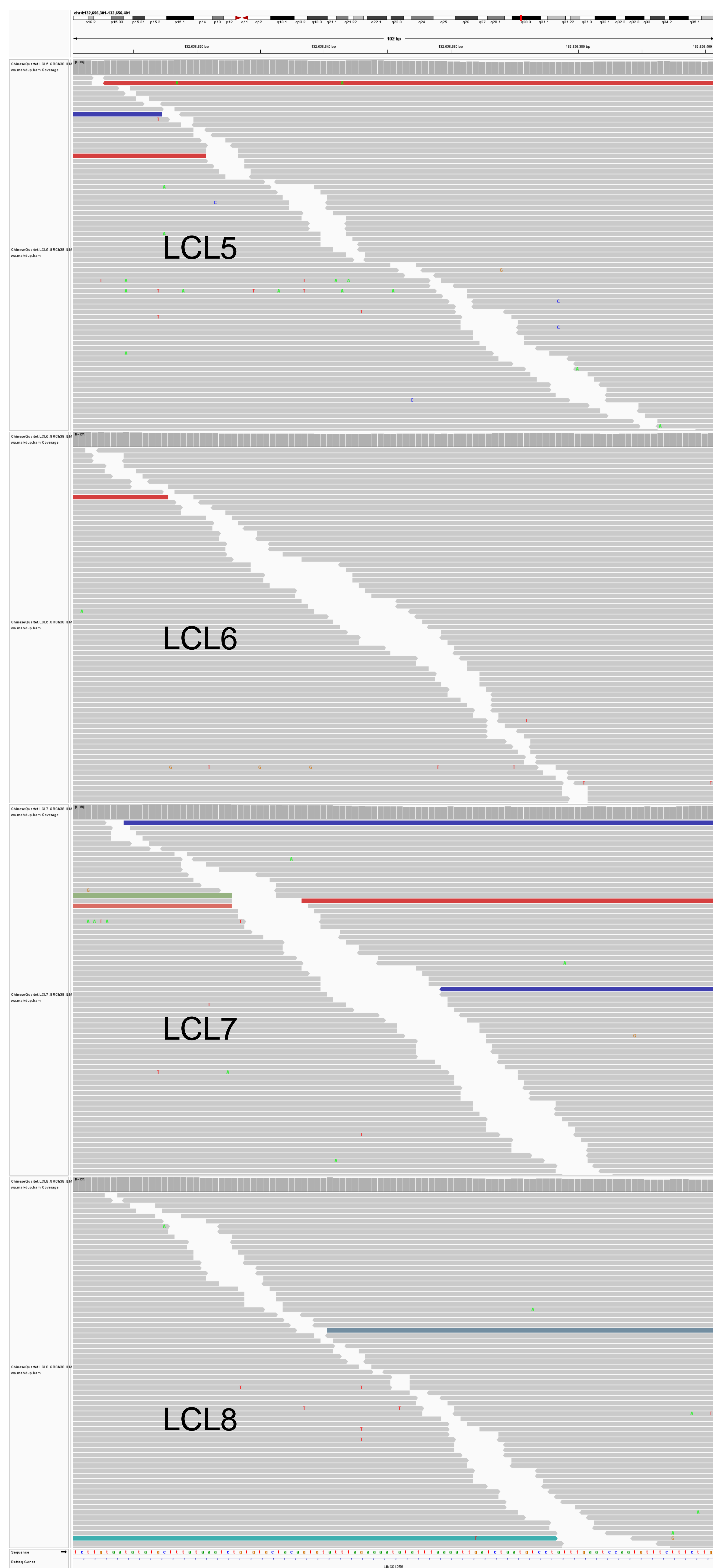
Illumina reads



# POS:chr4:132656351 Report Somatic mutation by HiFi

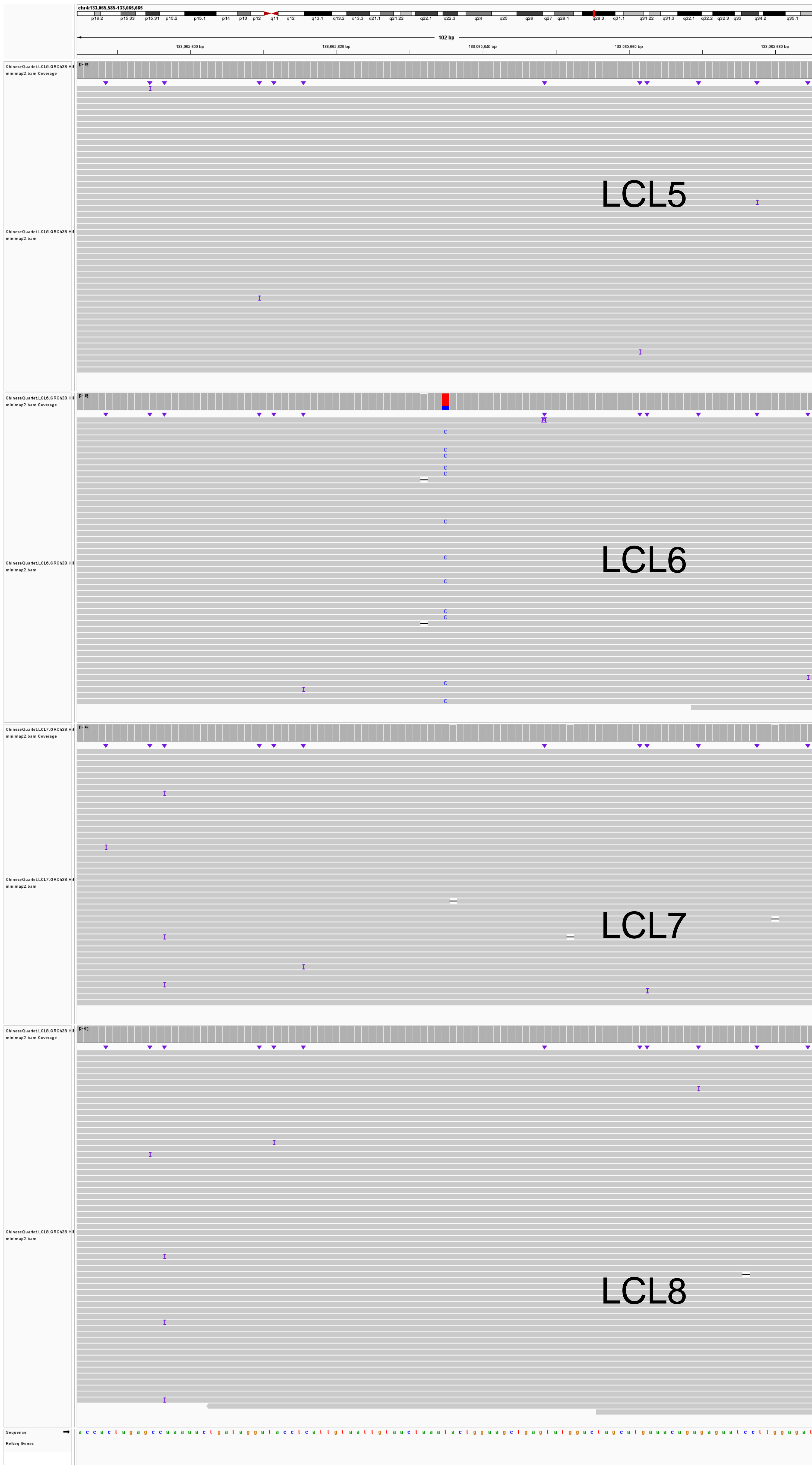


HiFi reads

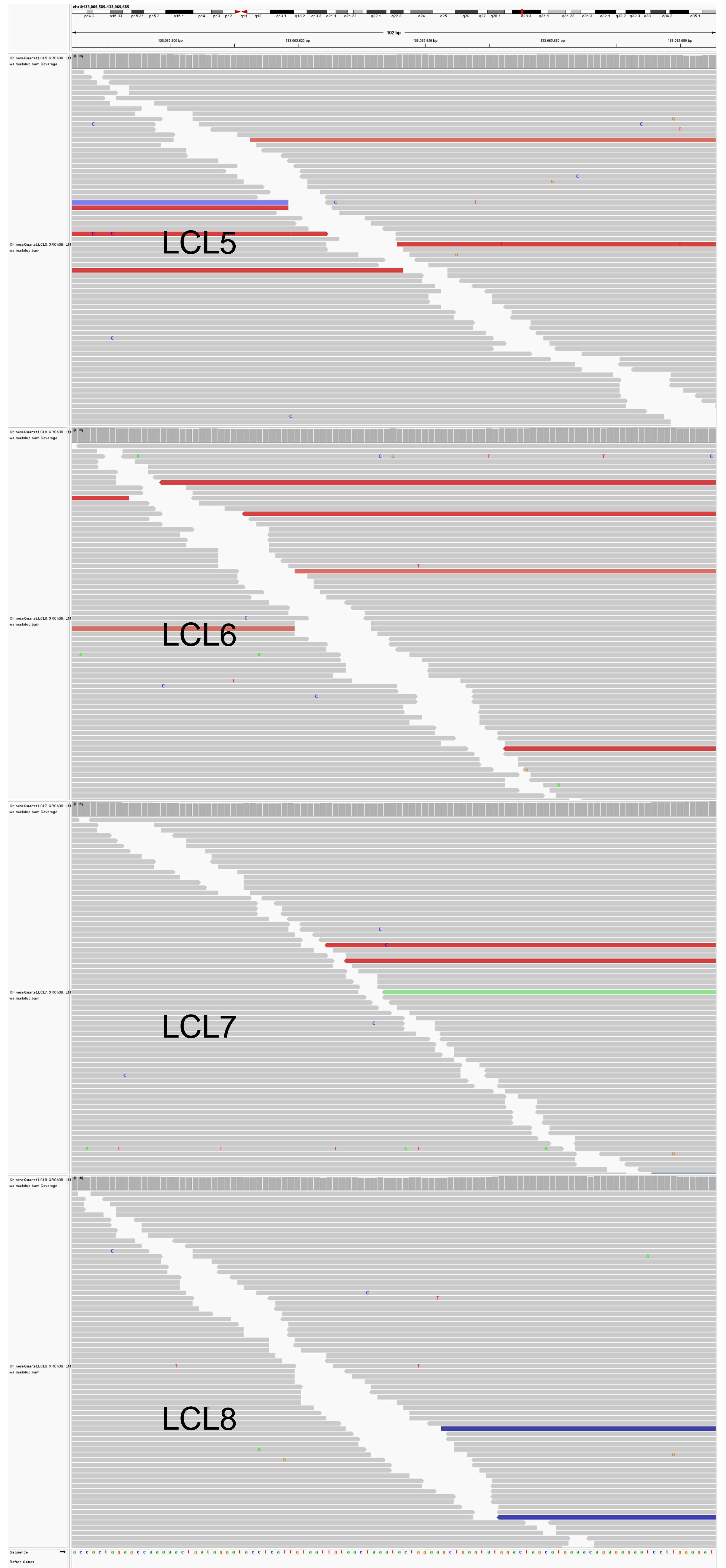


Illumina reads

POS:chr4:133065635 Report Somatic mutation by HiFi

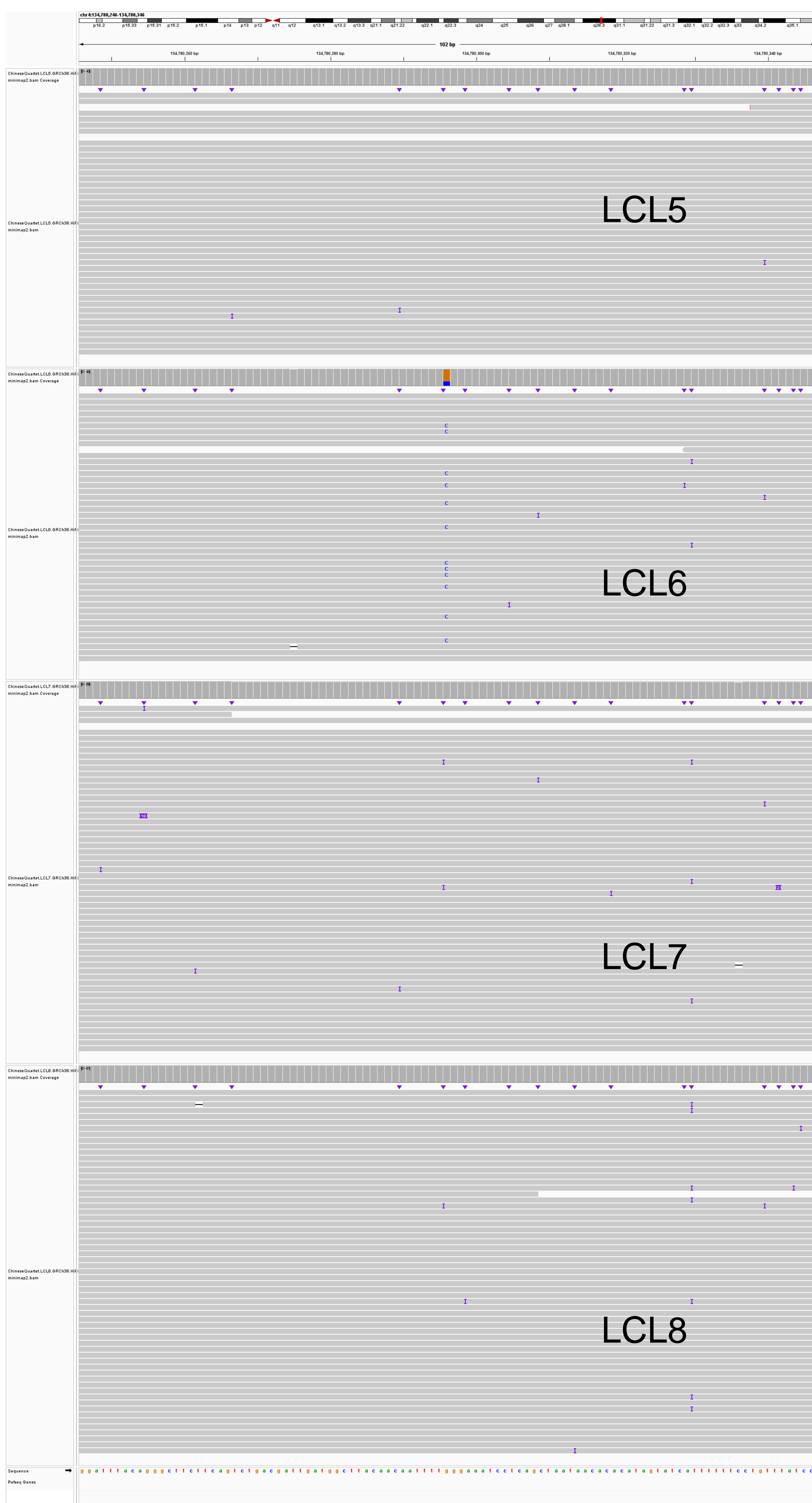


HiFi reads

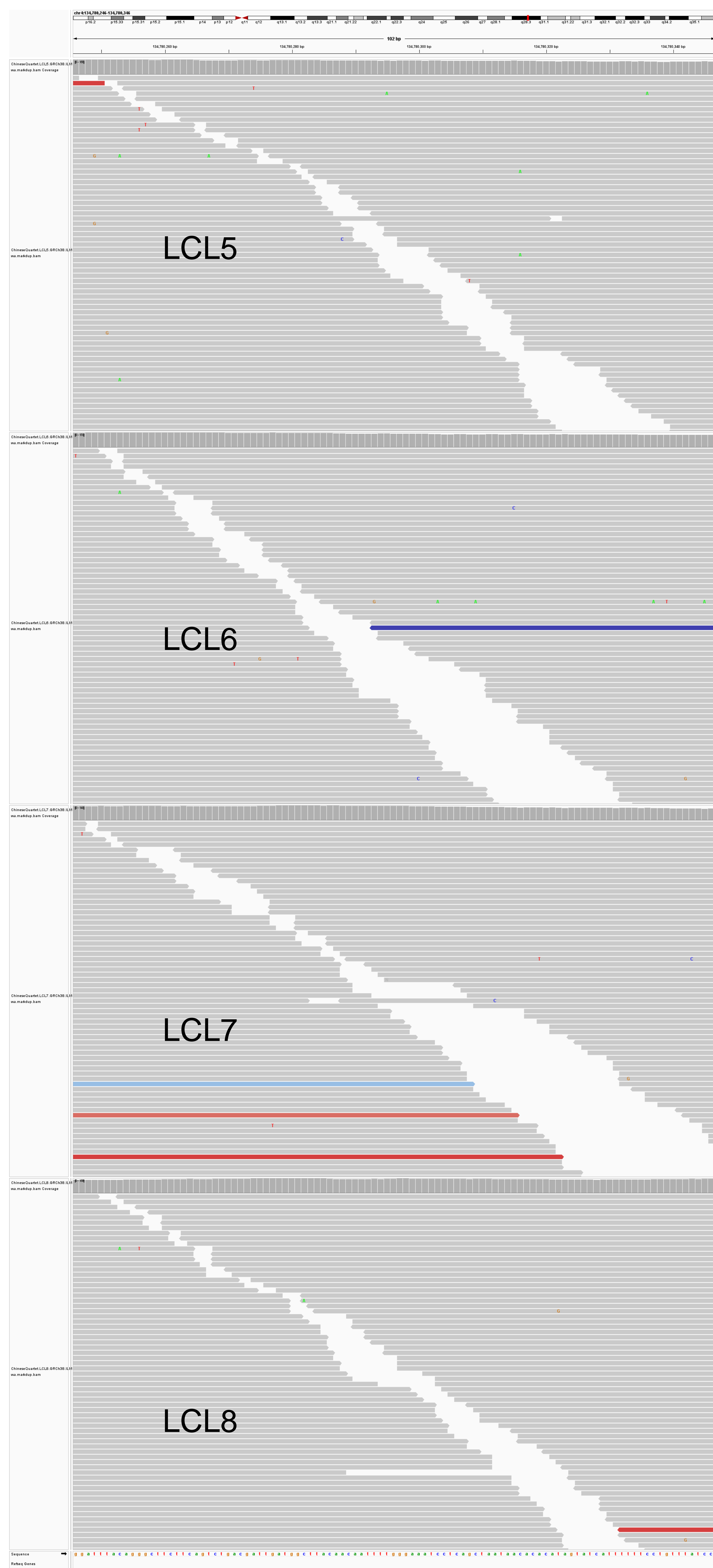


Illumina reads

# POS:chr4:134780296 Report Somatic mutation by HiFi

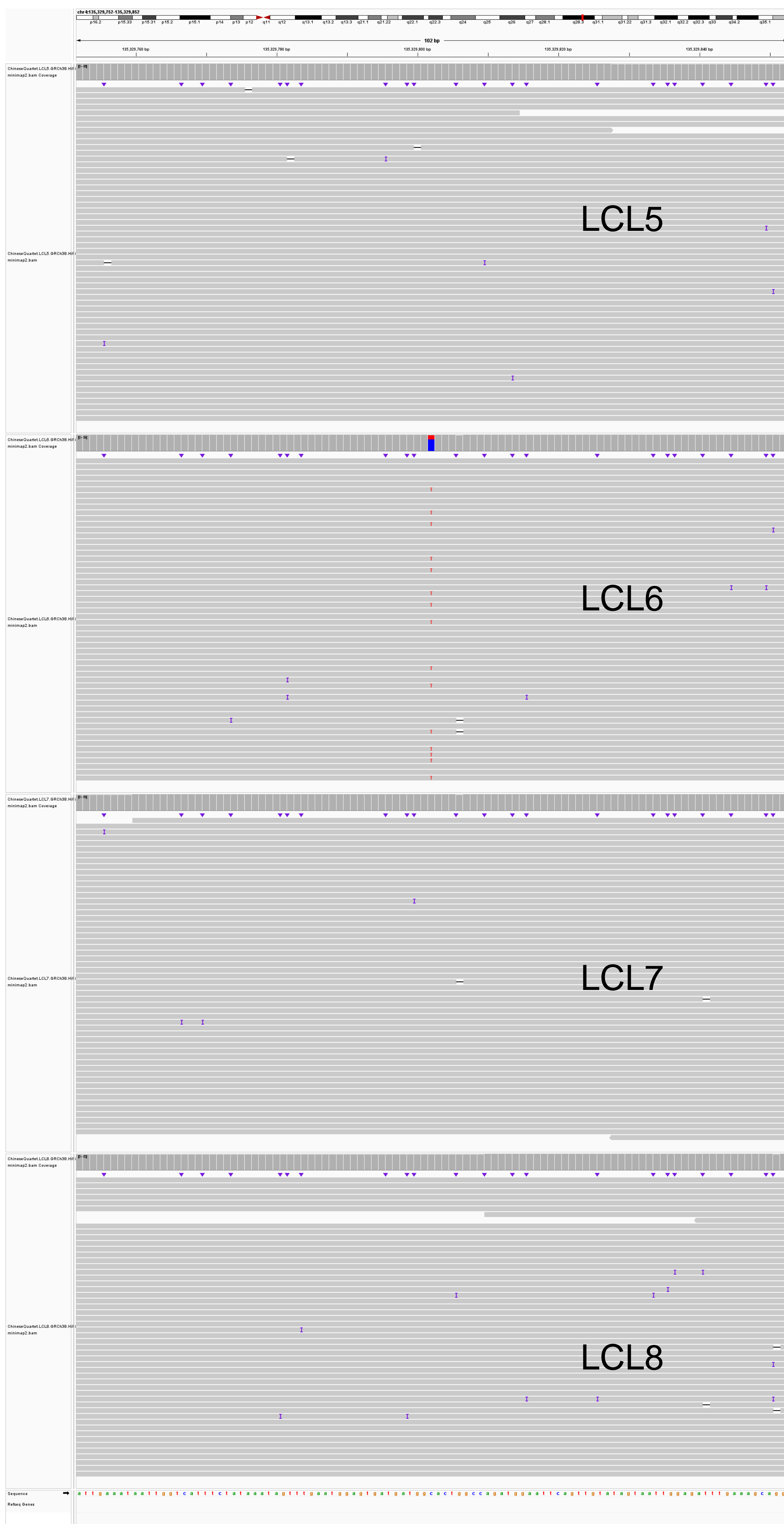


HiFi reads

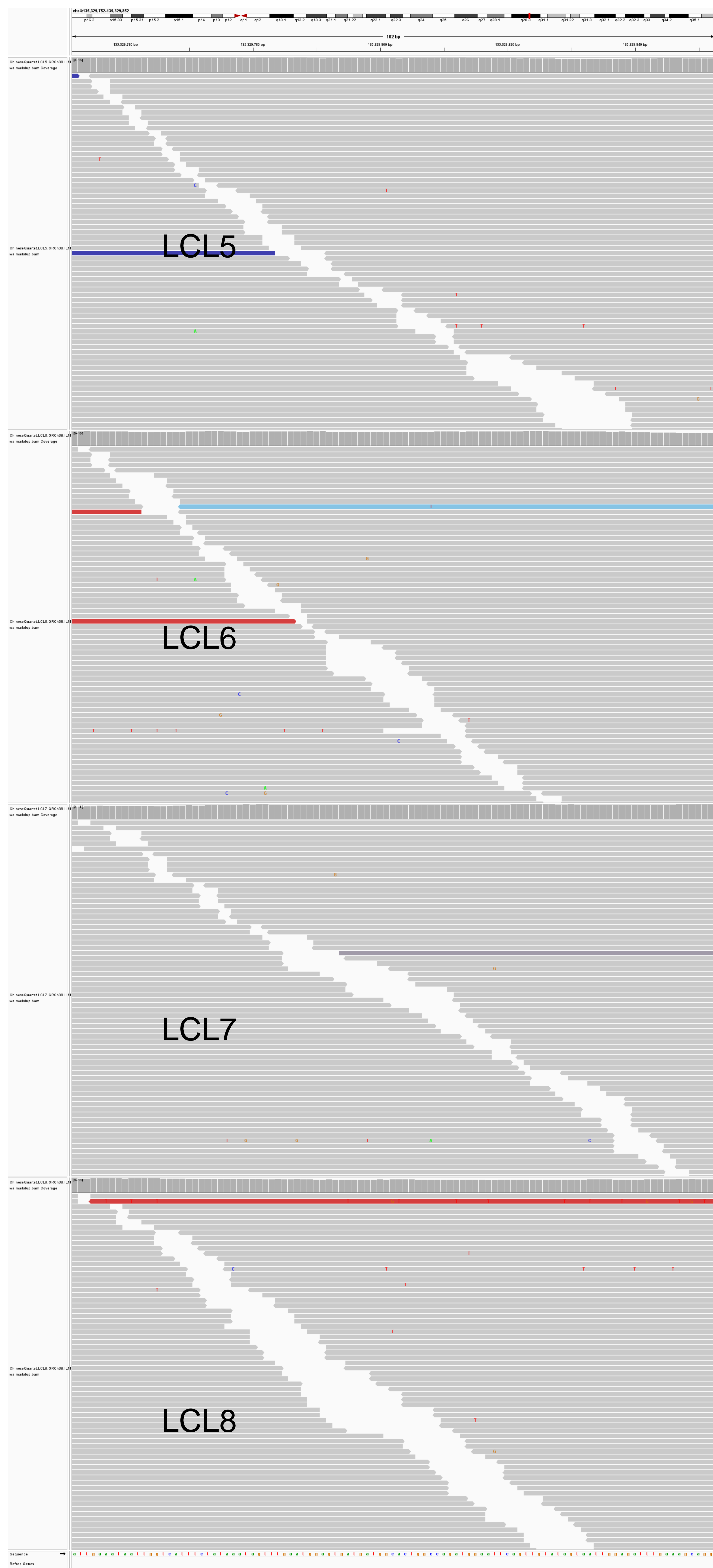


Illumina reads

# POS:chr4:135329802 Report Somatic mutation by HiFi



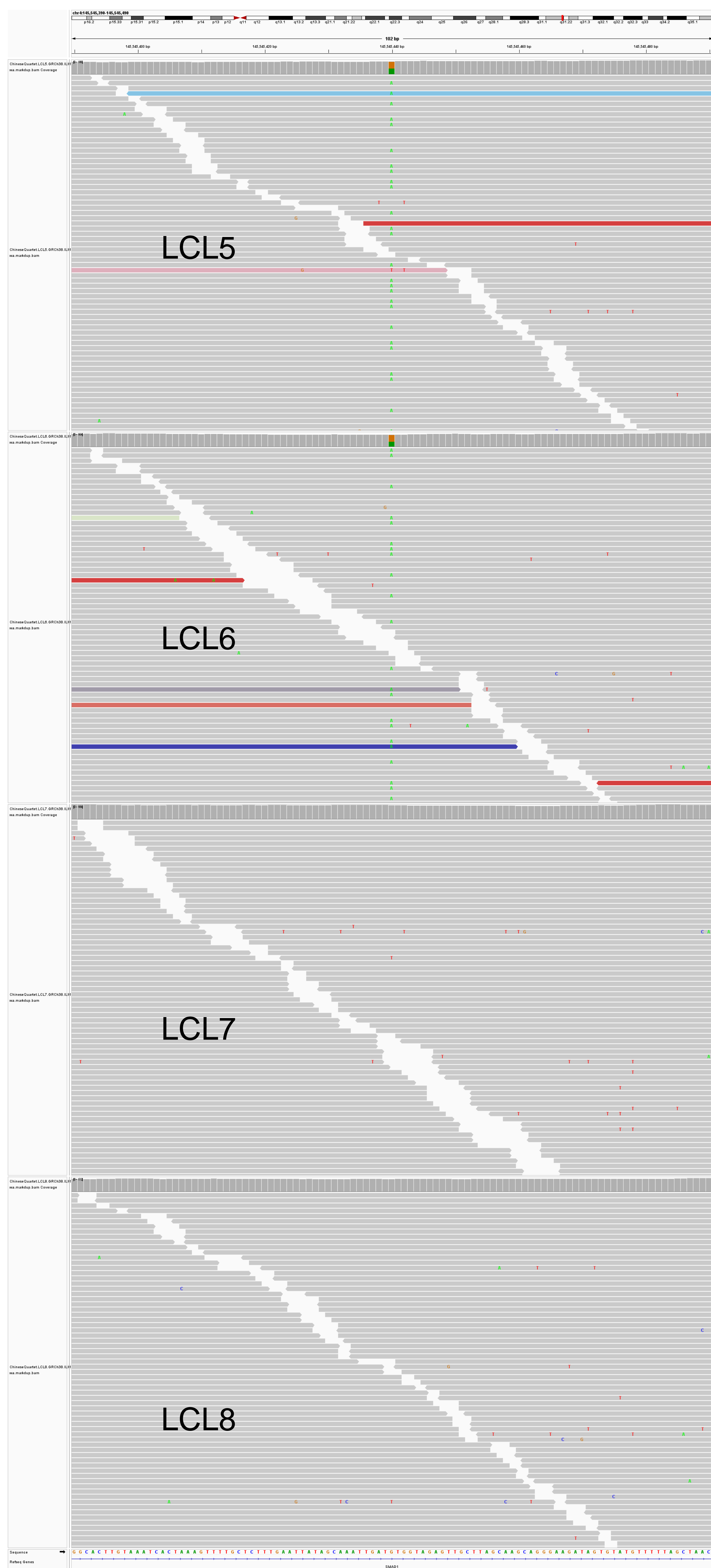
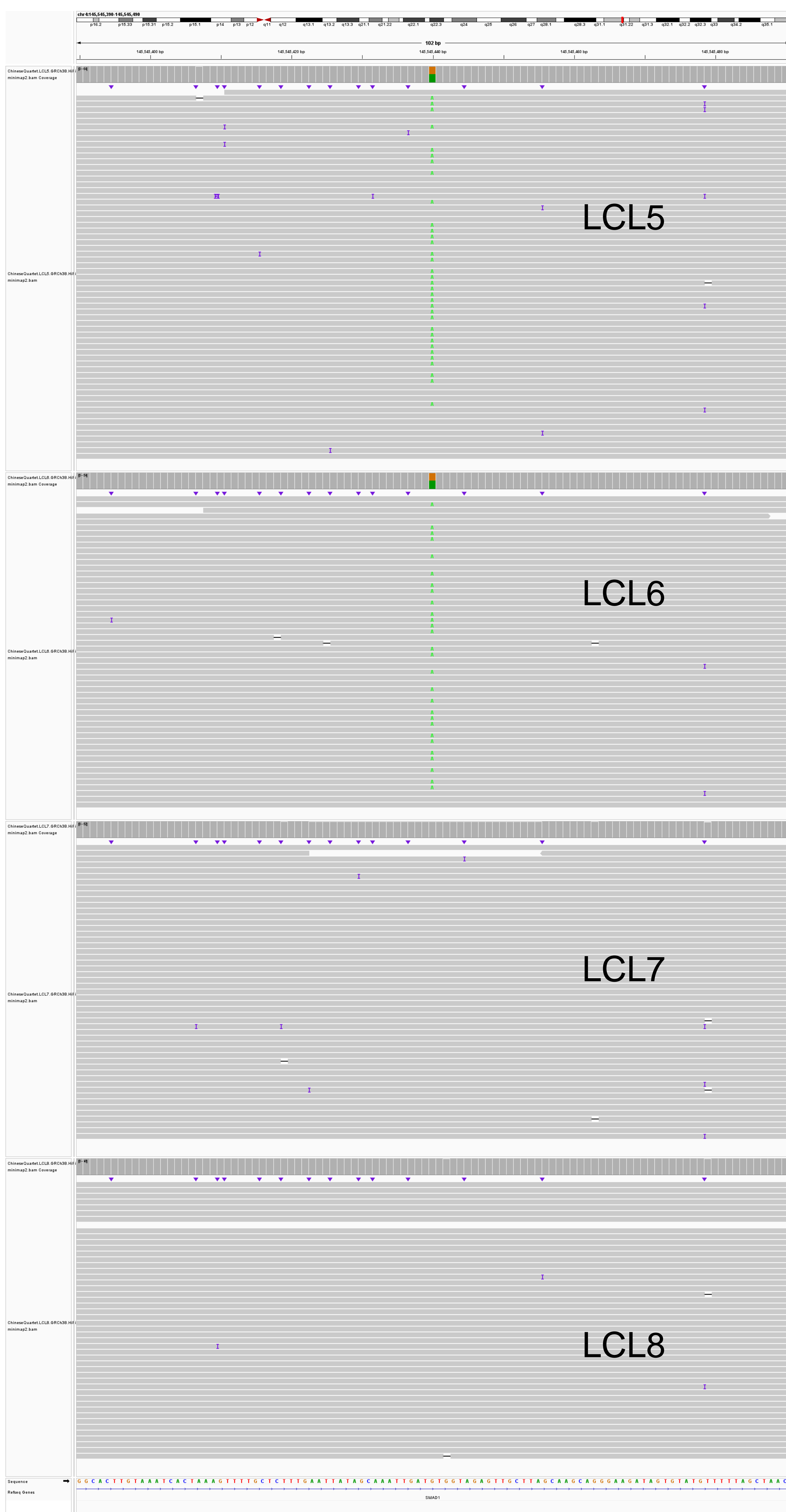
HiFi reads



Illumina reads



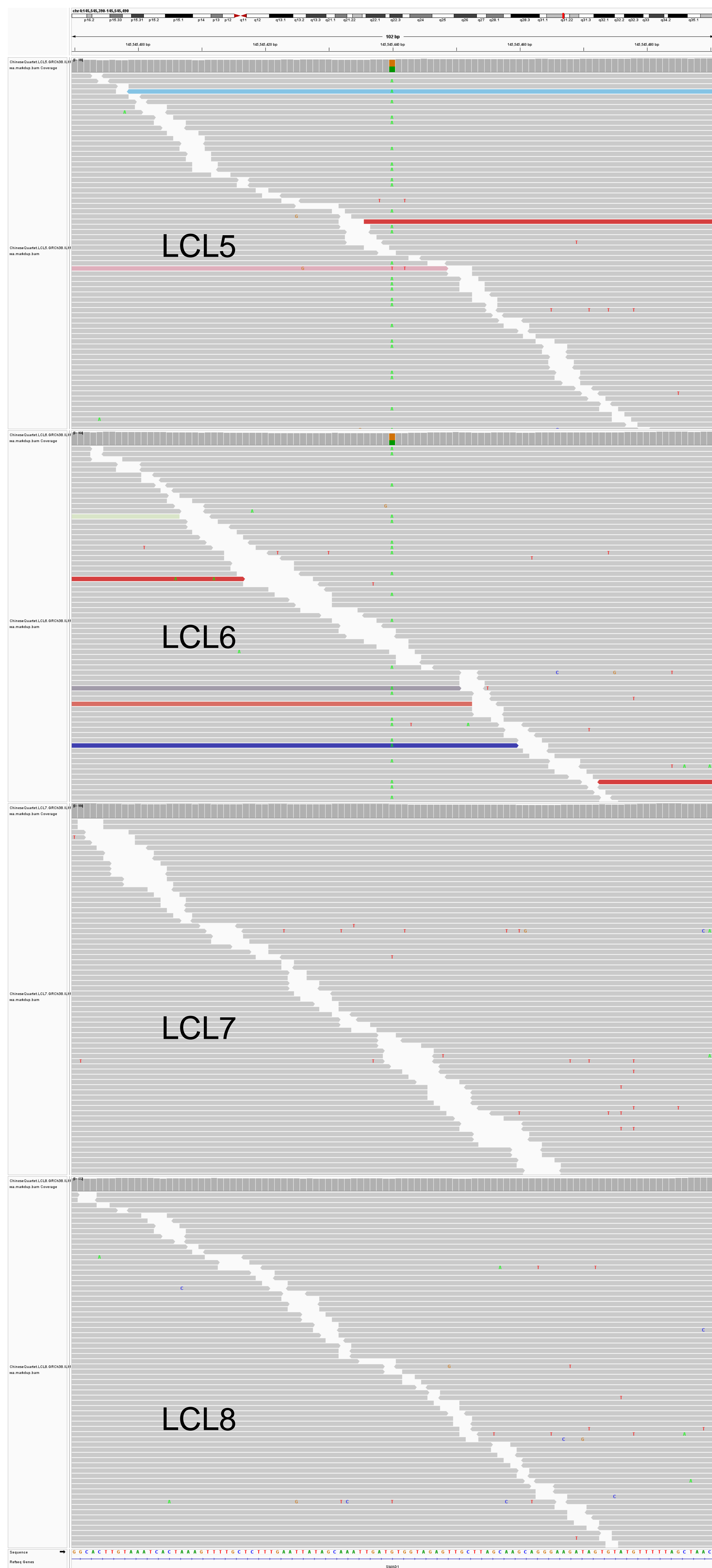
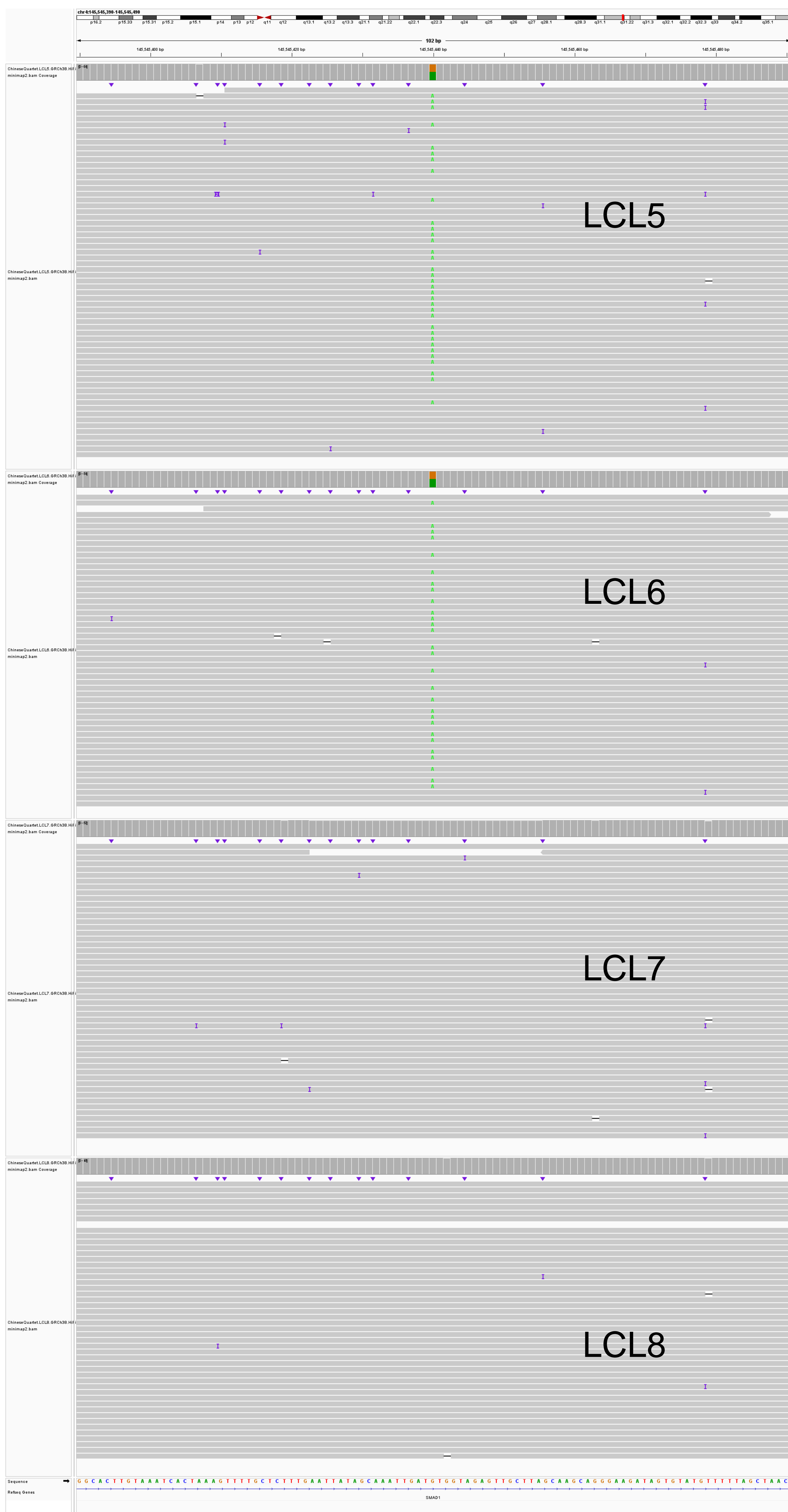
# POS:chr4:145545440 Report DeNovo mutation by ILM



HiFi reads

Illumina reads

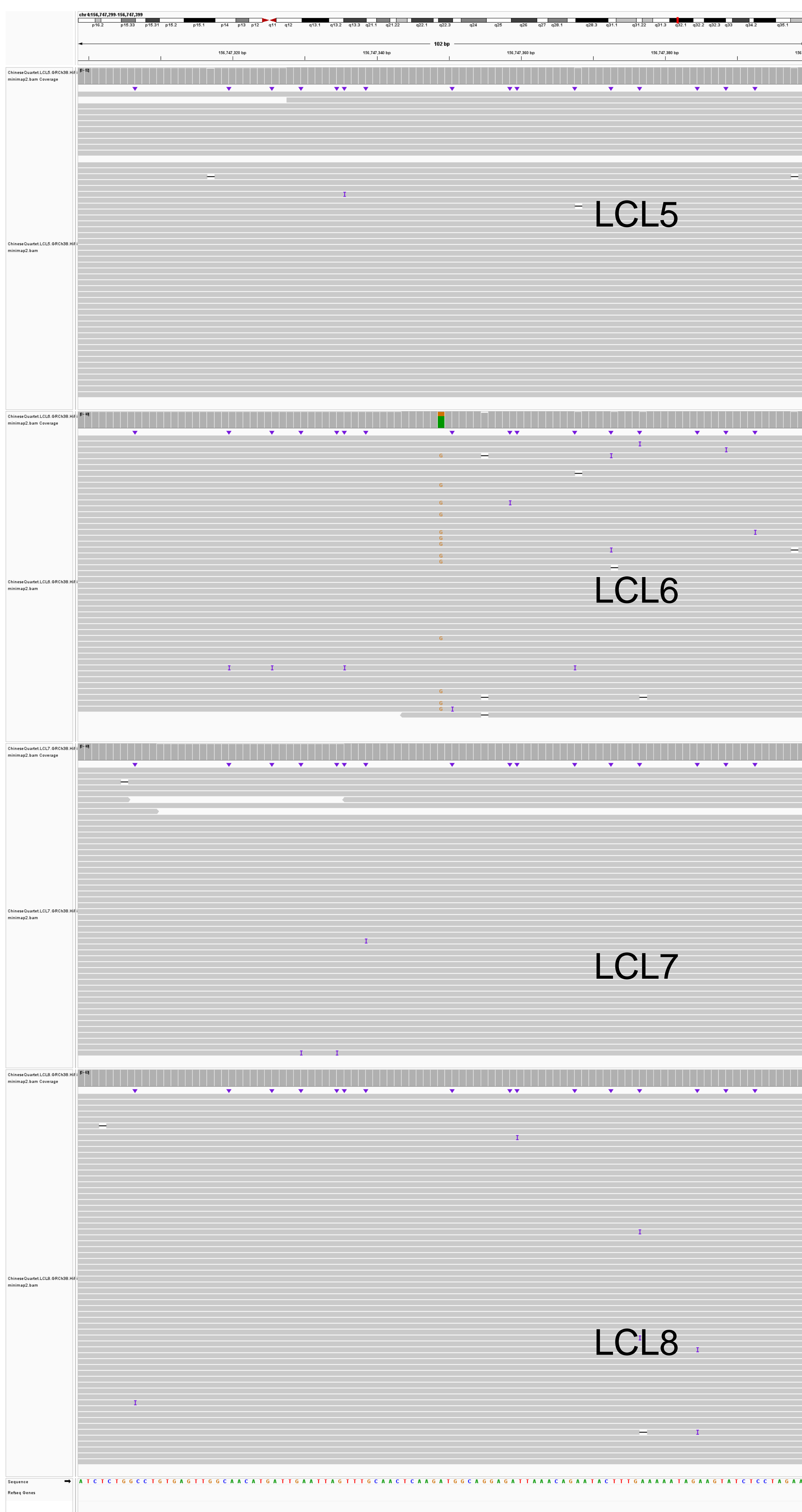
# POS:chr4:145545440 Report DeNovo mutation by HiFi



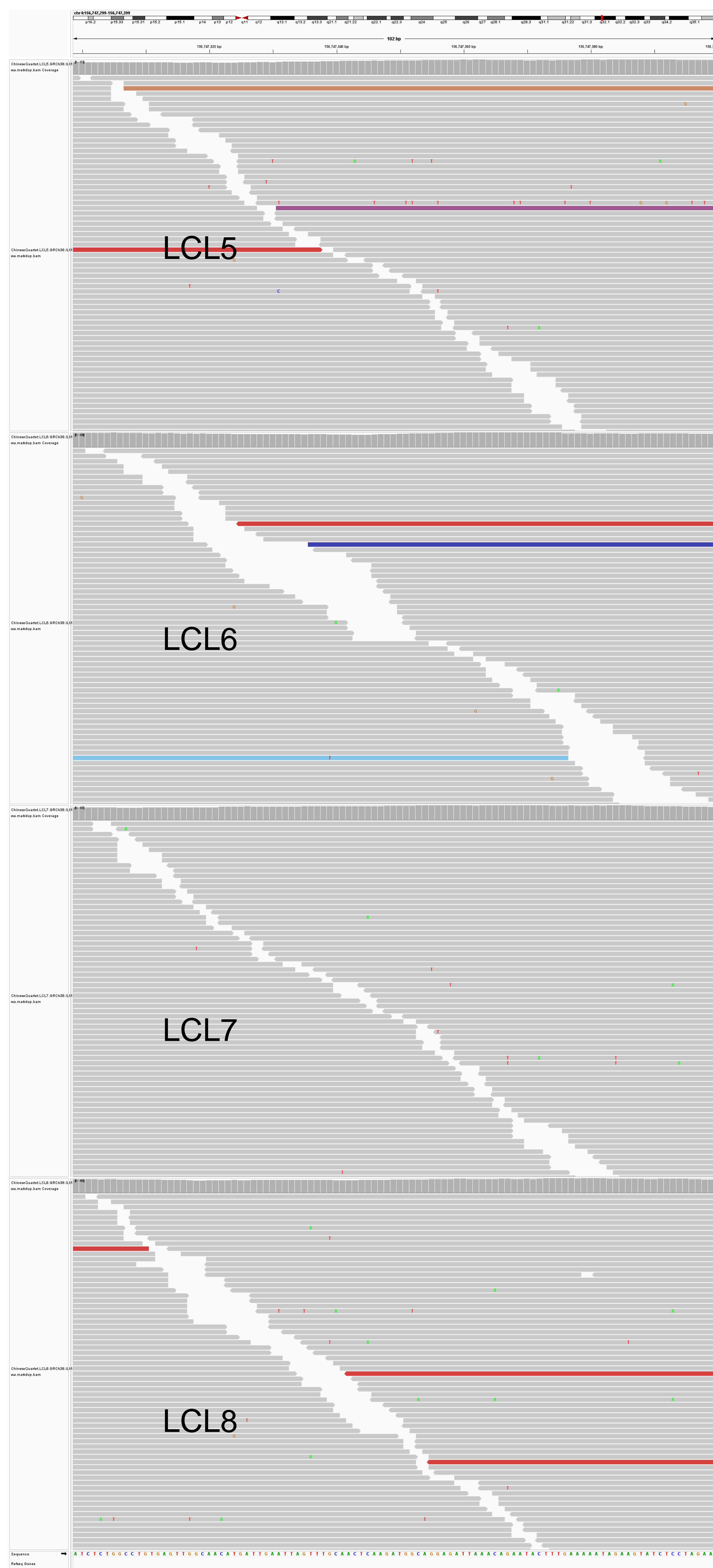
HiFi reads

Illumina reads

# POS:chr4:156747349 Report Somatic mutation by HiFi

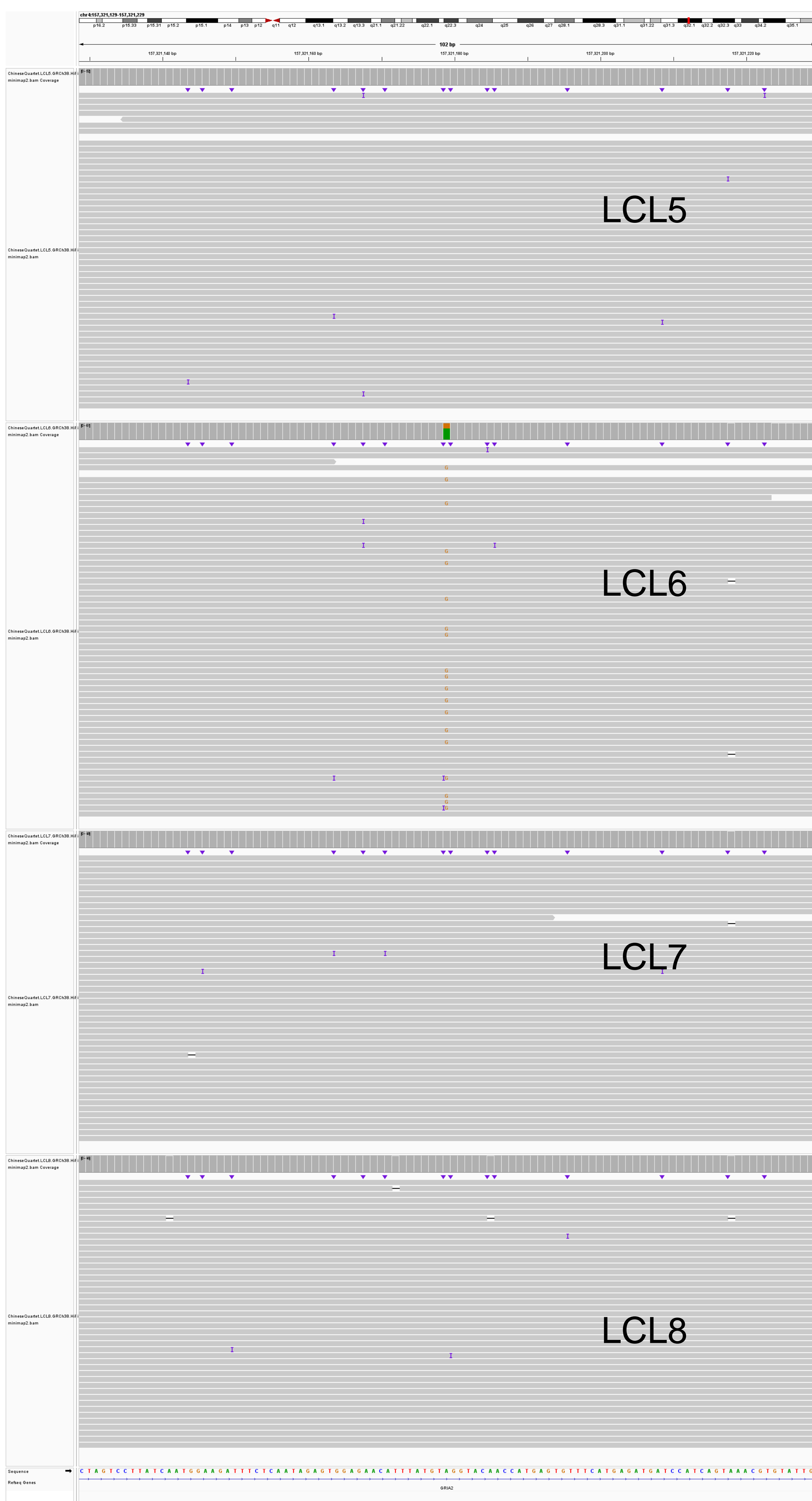


HiFi reads

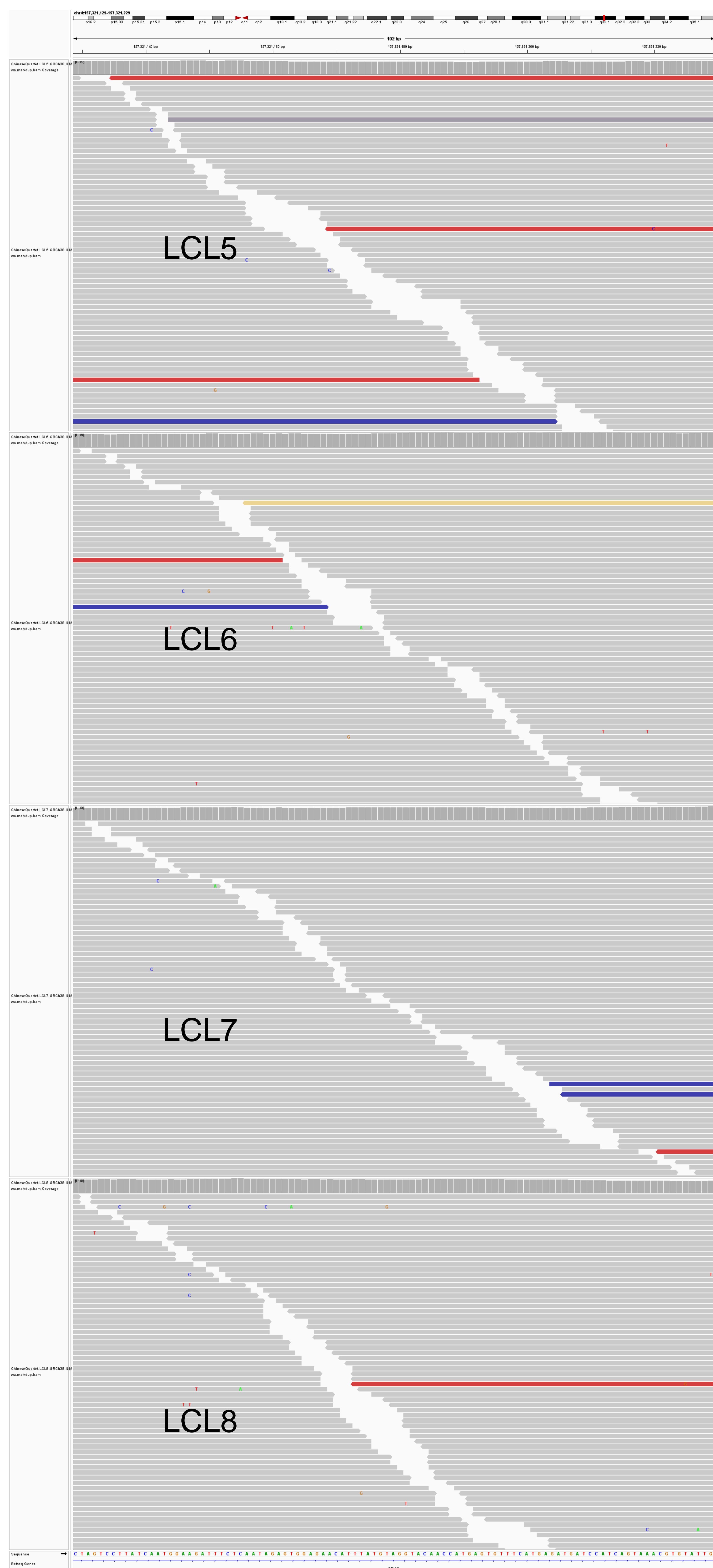


Illumina reads

# POS:chr4:157321179 Report Somatic mutation by HiFi



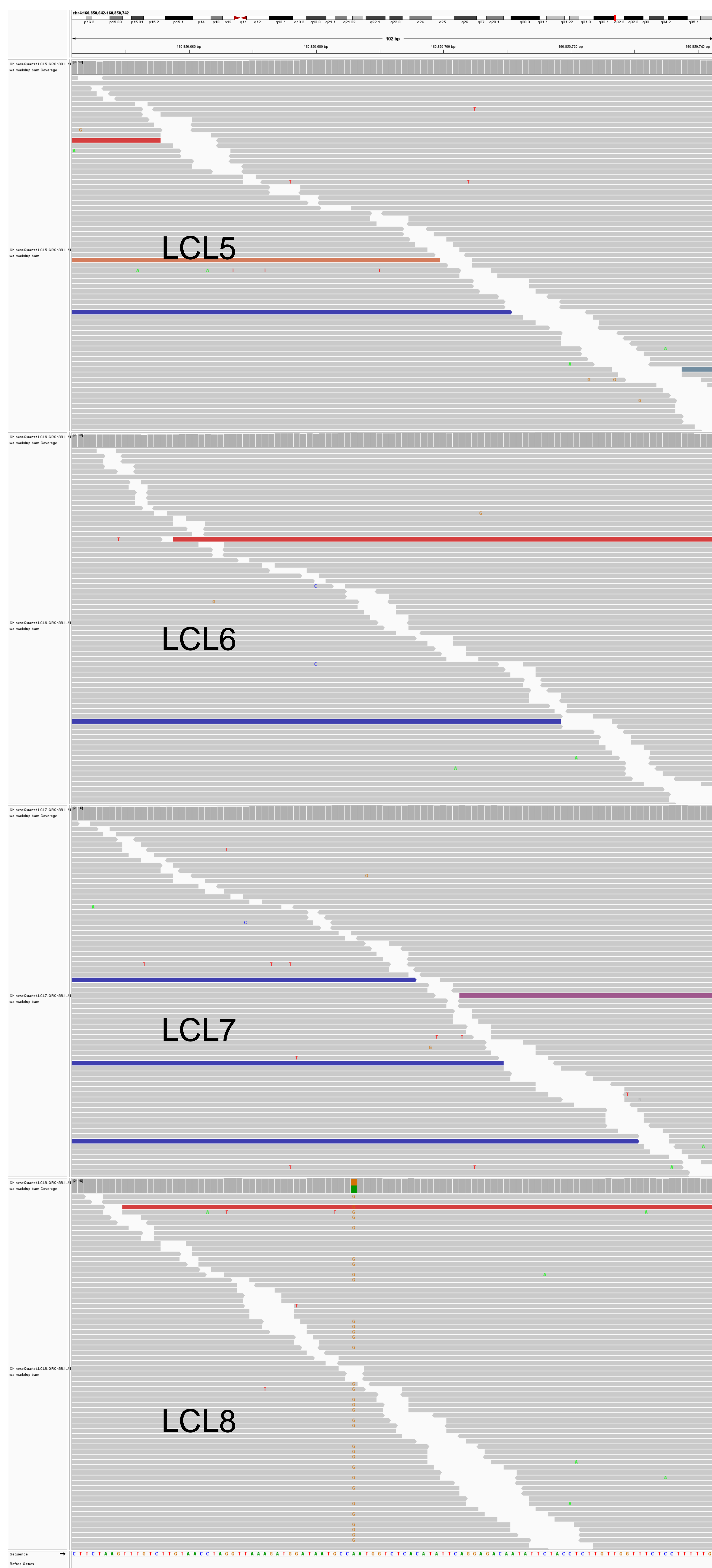
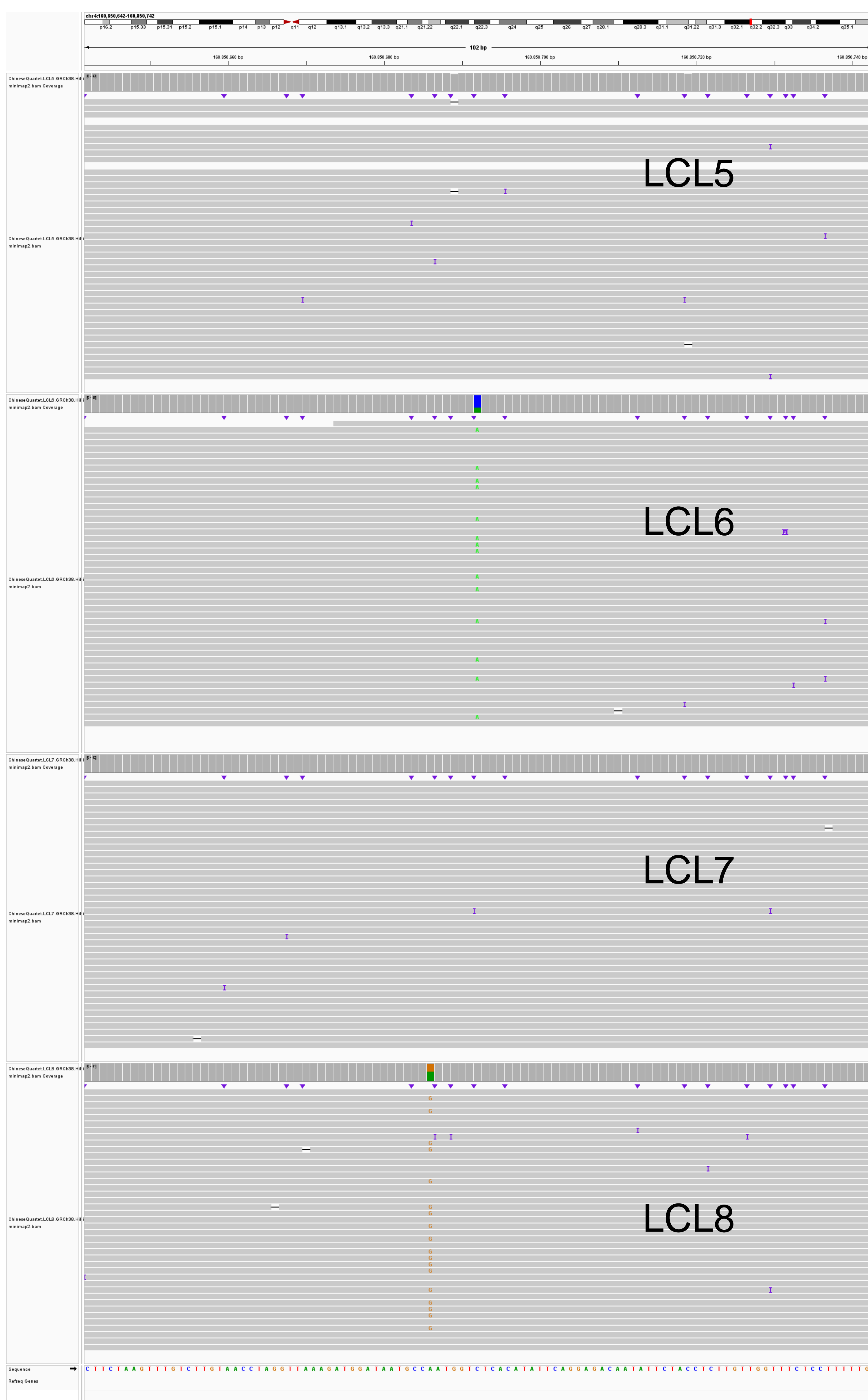
HiFi reads



Illumina reads



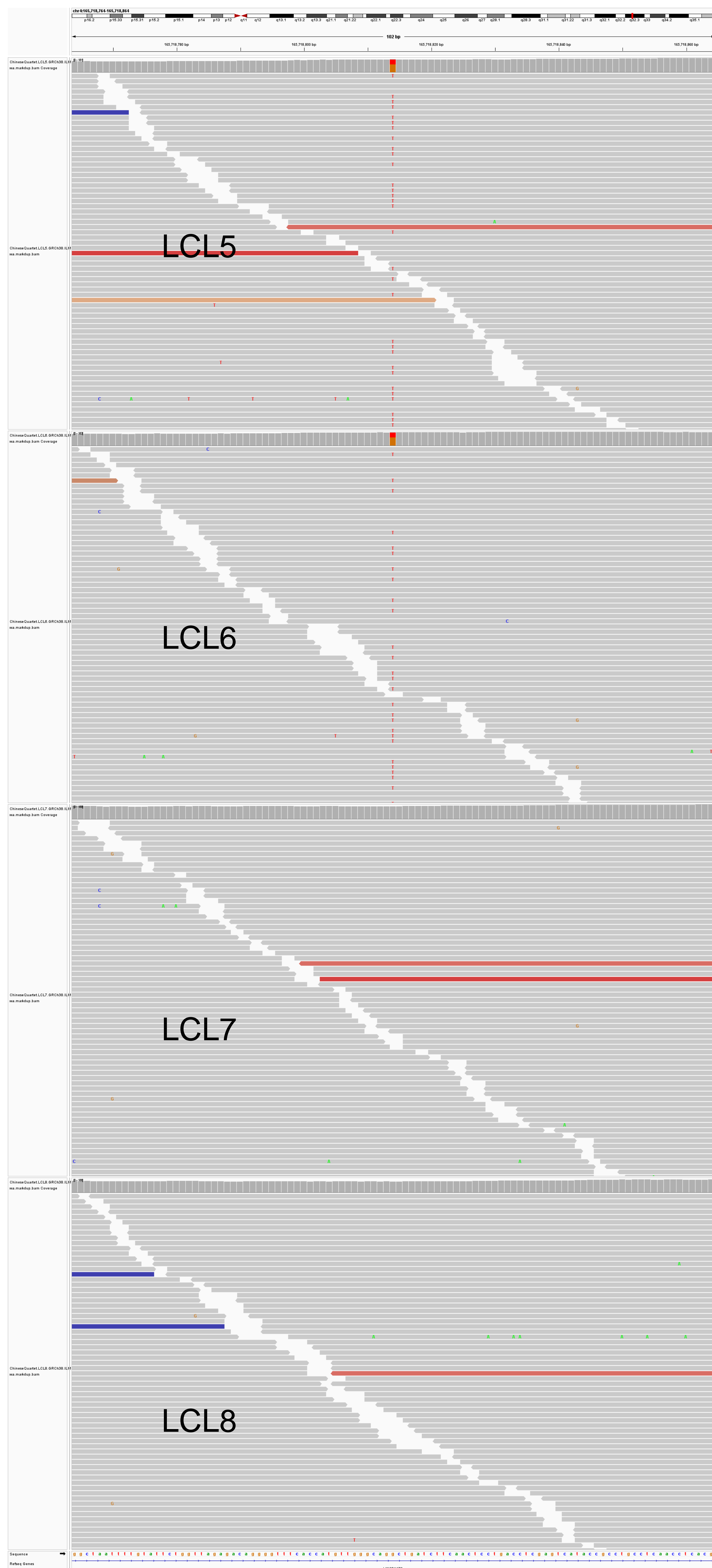
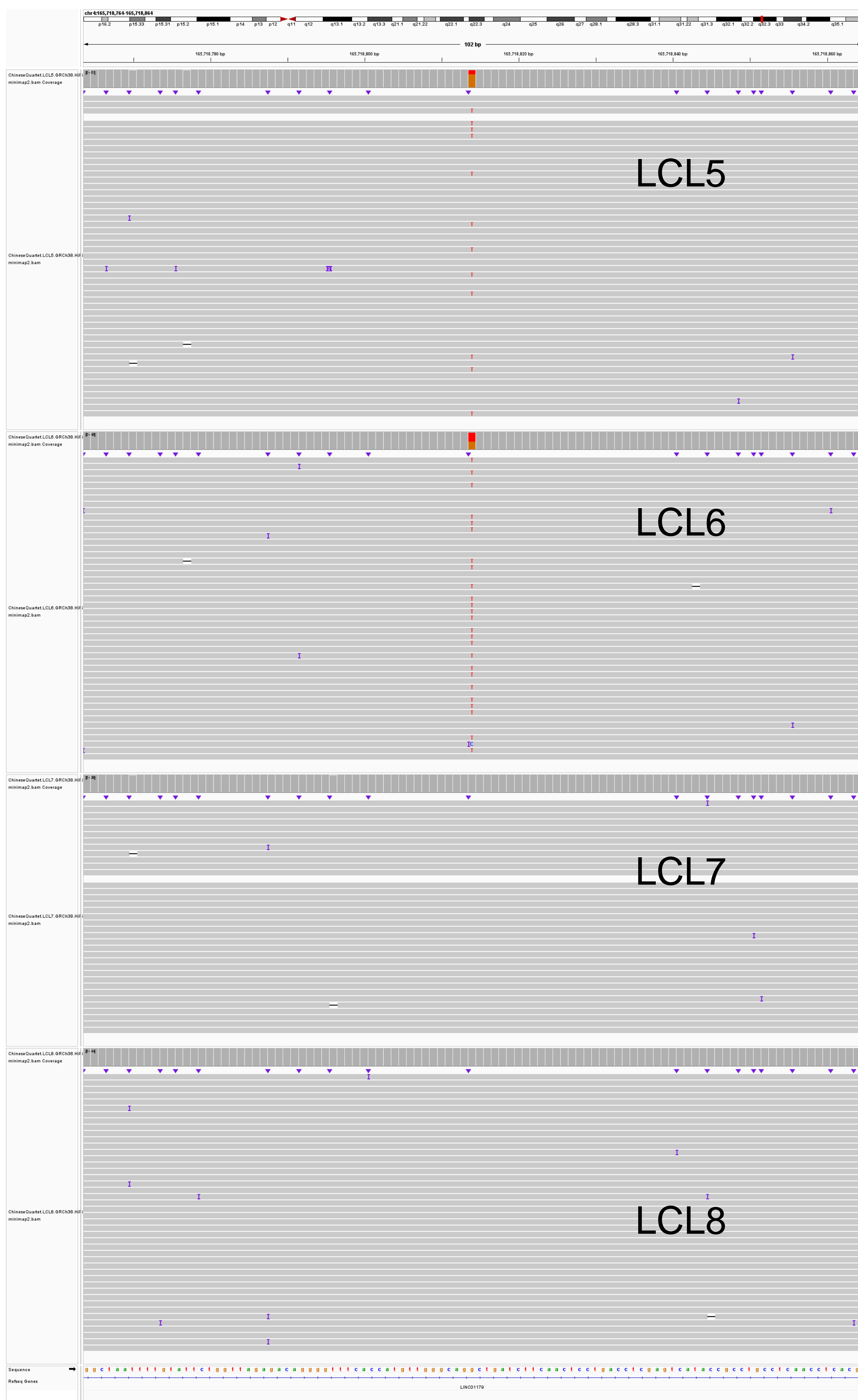
# POS:chr4:160850692 Report Somatic mutation by HiFi



HiFi reads

Illumina reads

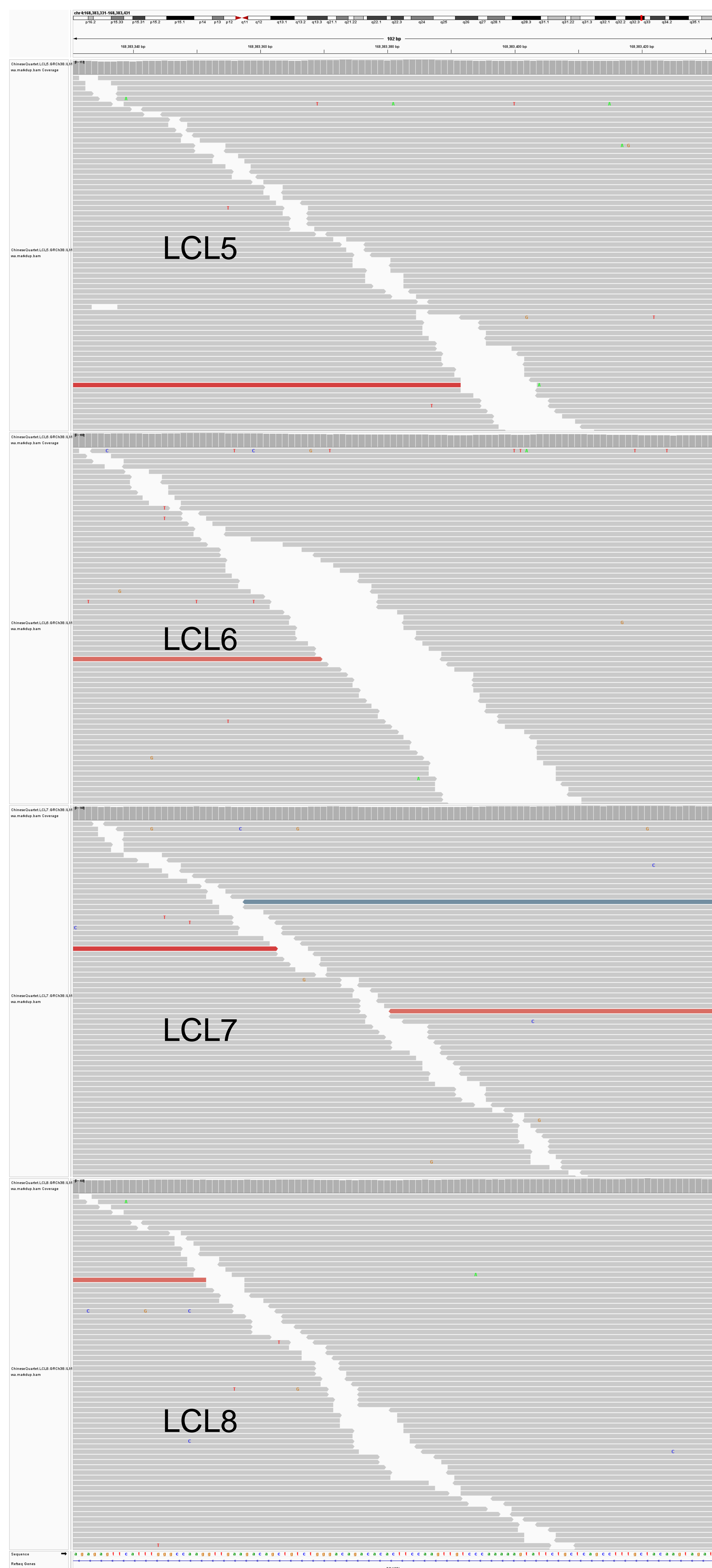
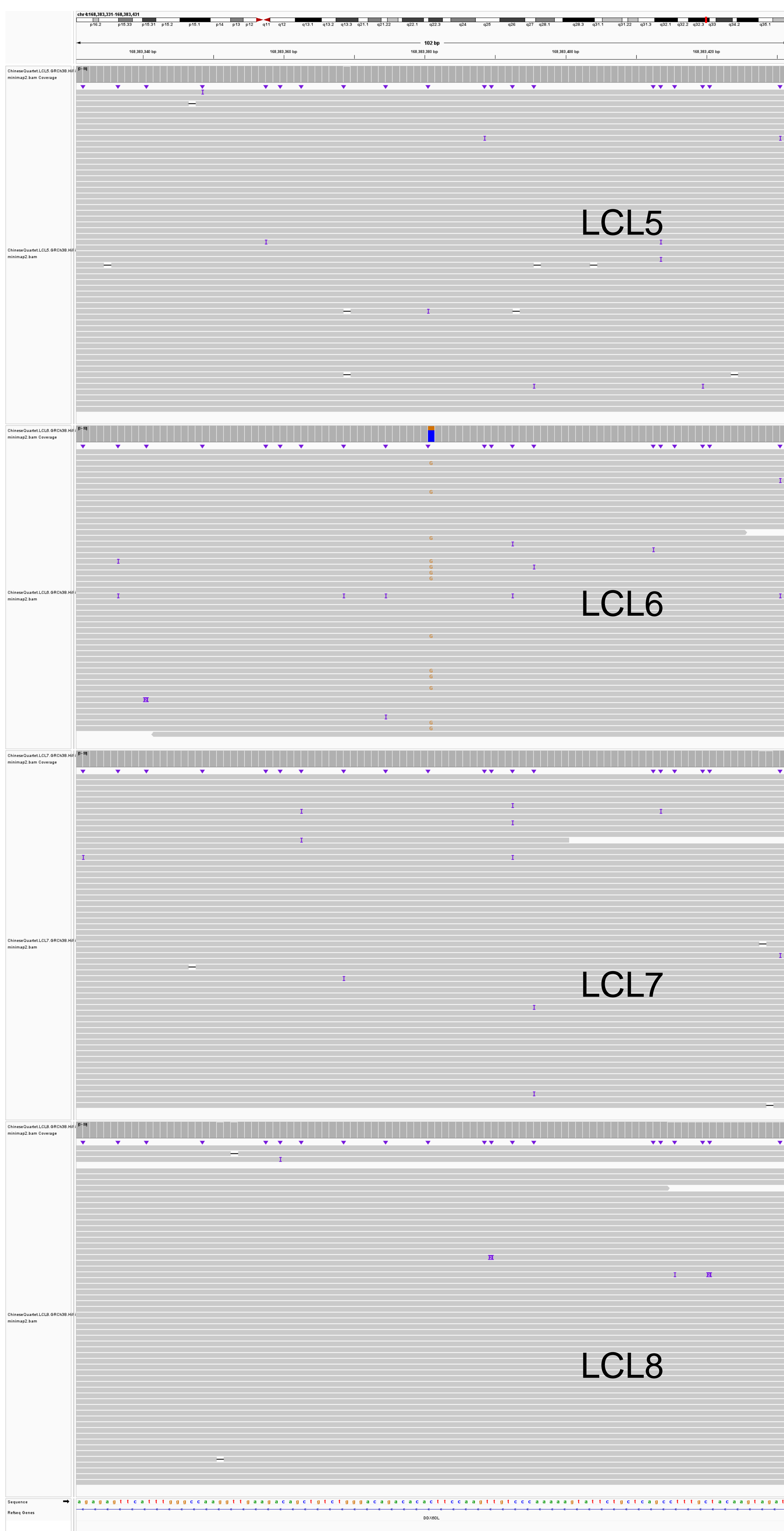
# POS:chr4:165718814 Report DeNovo mutation by ILM



HiFi reads

Illumina reads

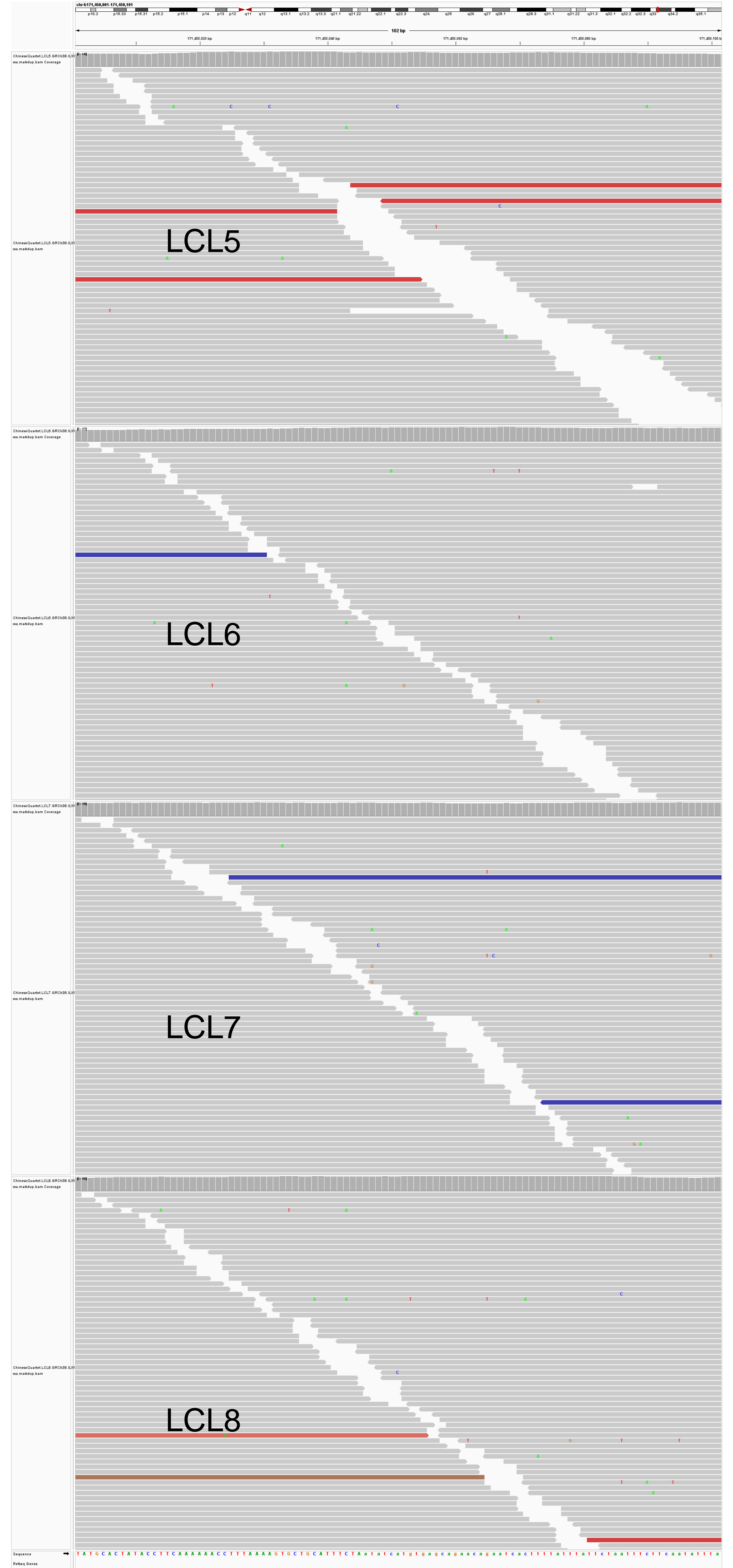
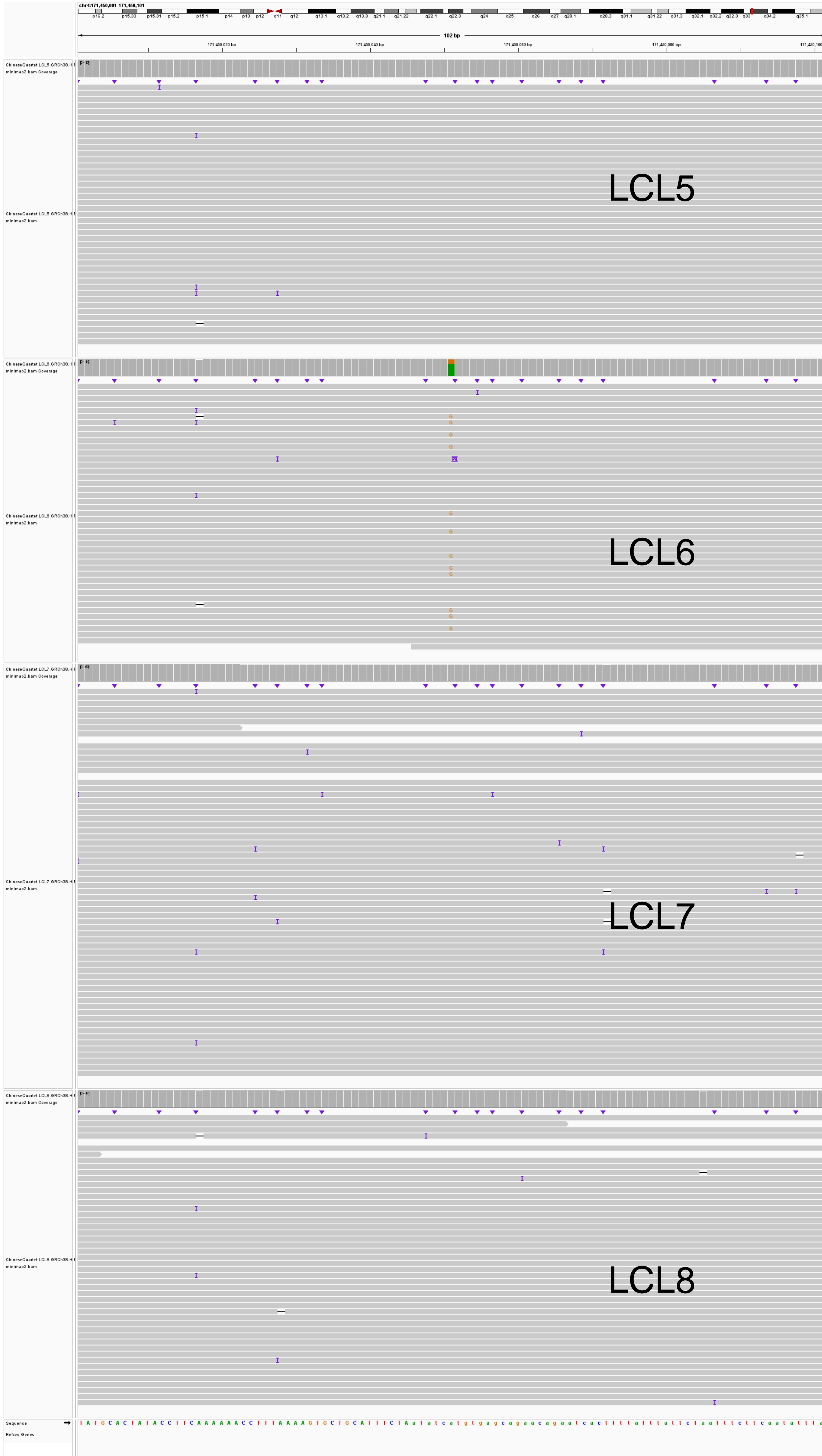
# POS:chr4:168383381 Report Somatic mutation by HiFi



HiFi reads

Illumina reads

POS:chr4:171450051 Report Somatic mutation by HiFi



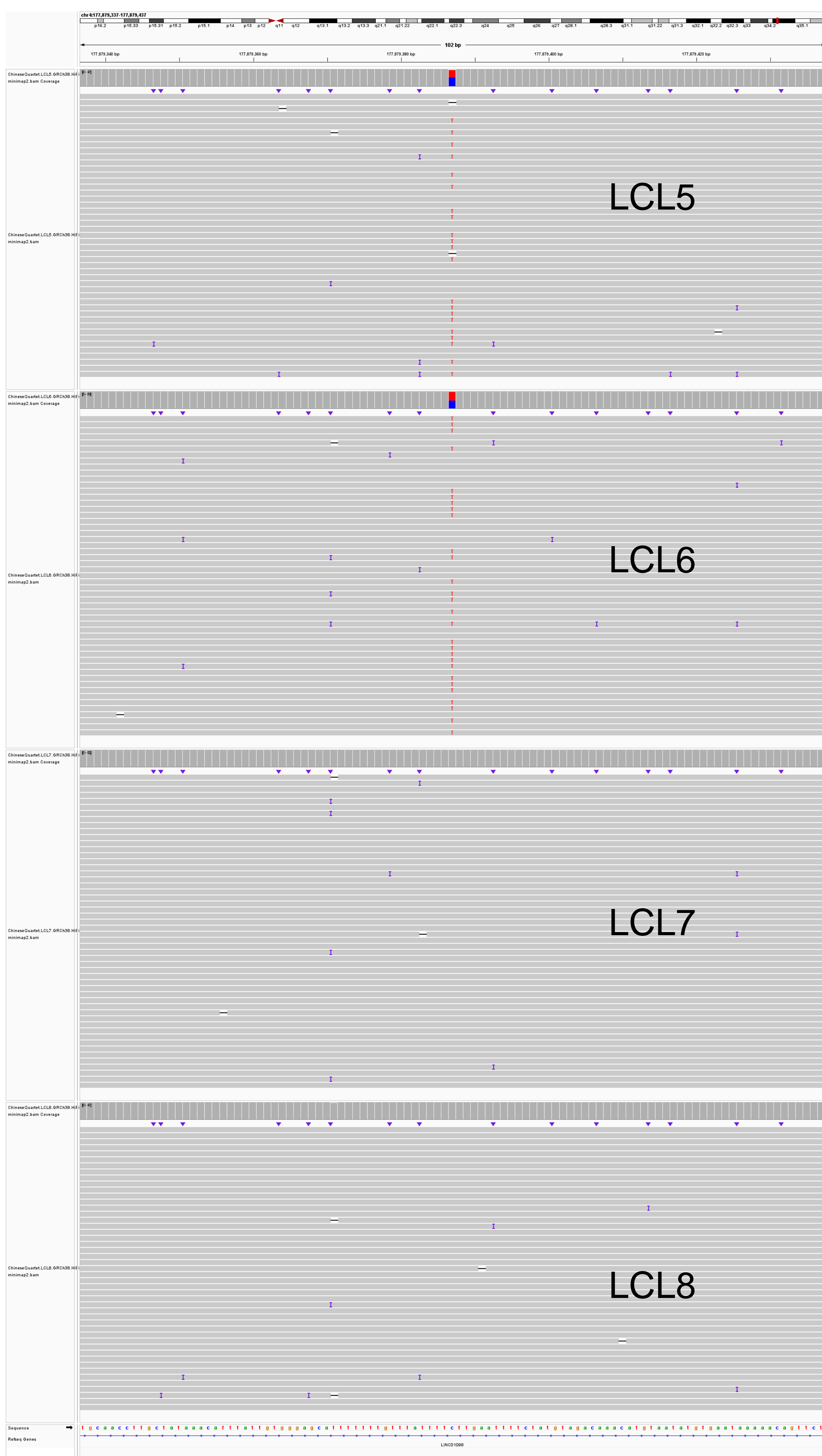
HiFi reads

Illumina reads

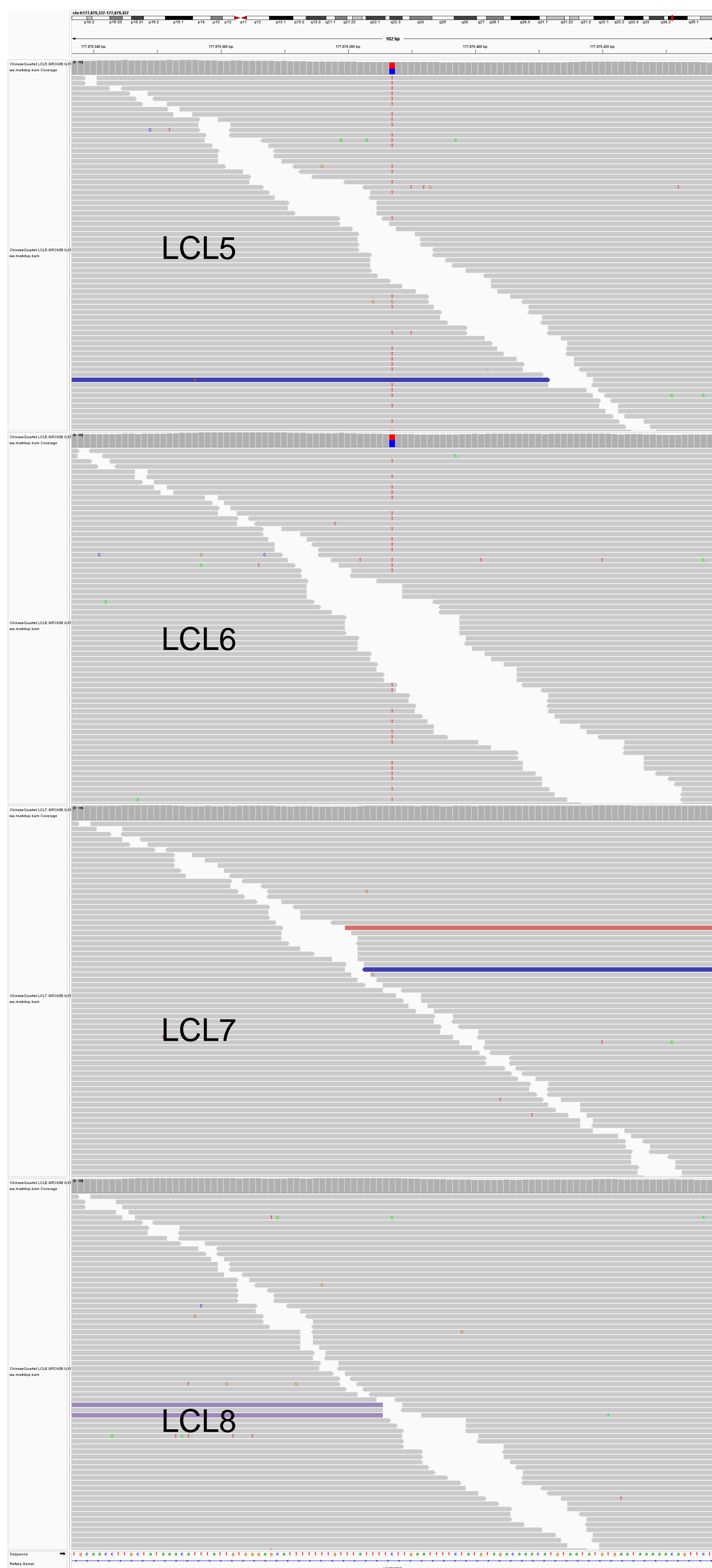




# POS:chr4:177879387 Report DeNovo mutation by HiFi

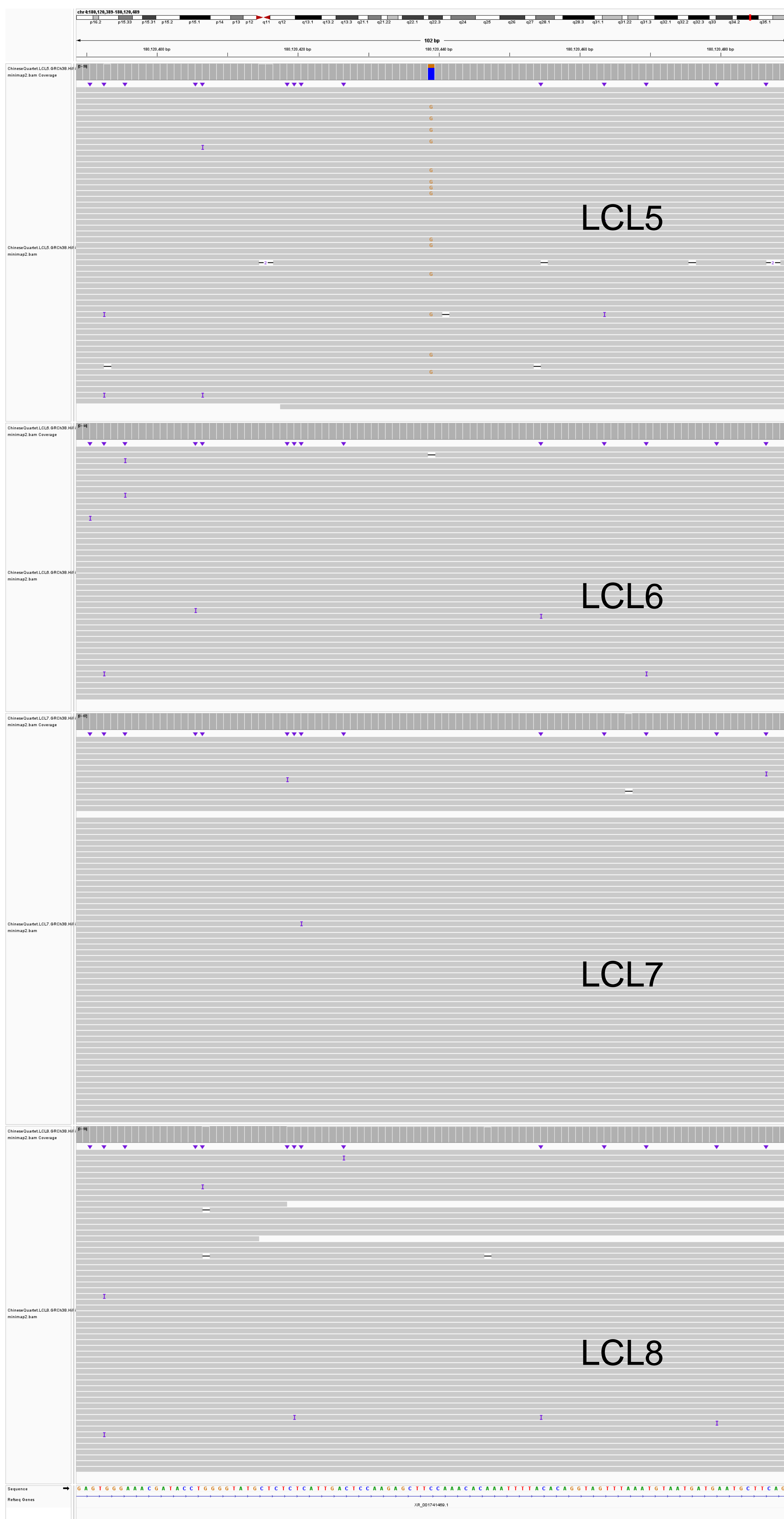


HiFi reads

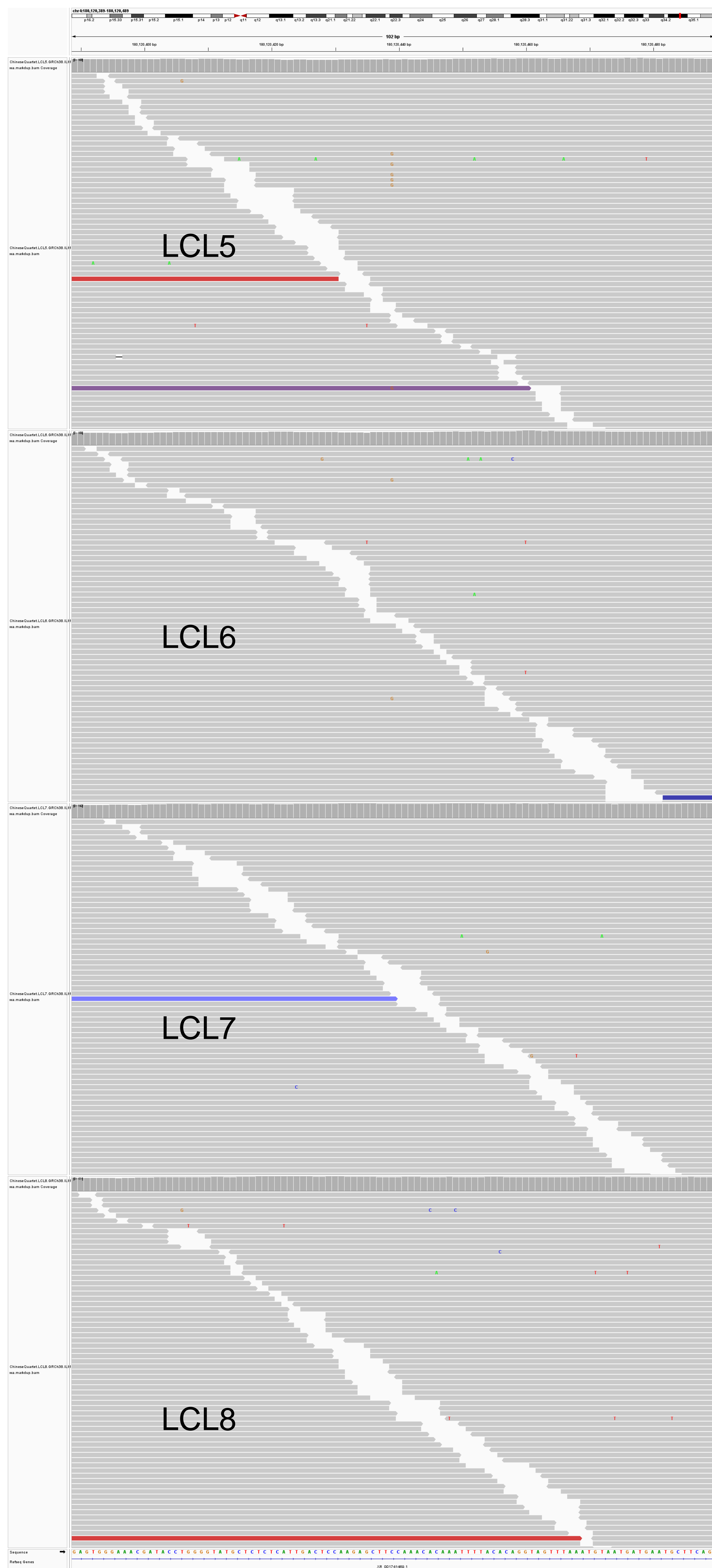


Illumina reads

# POS:chr4:180120439 Report Somatic mutation by HiFi

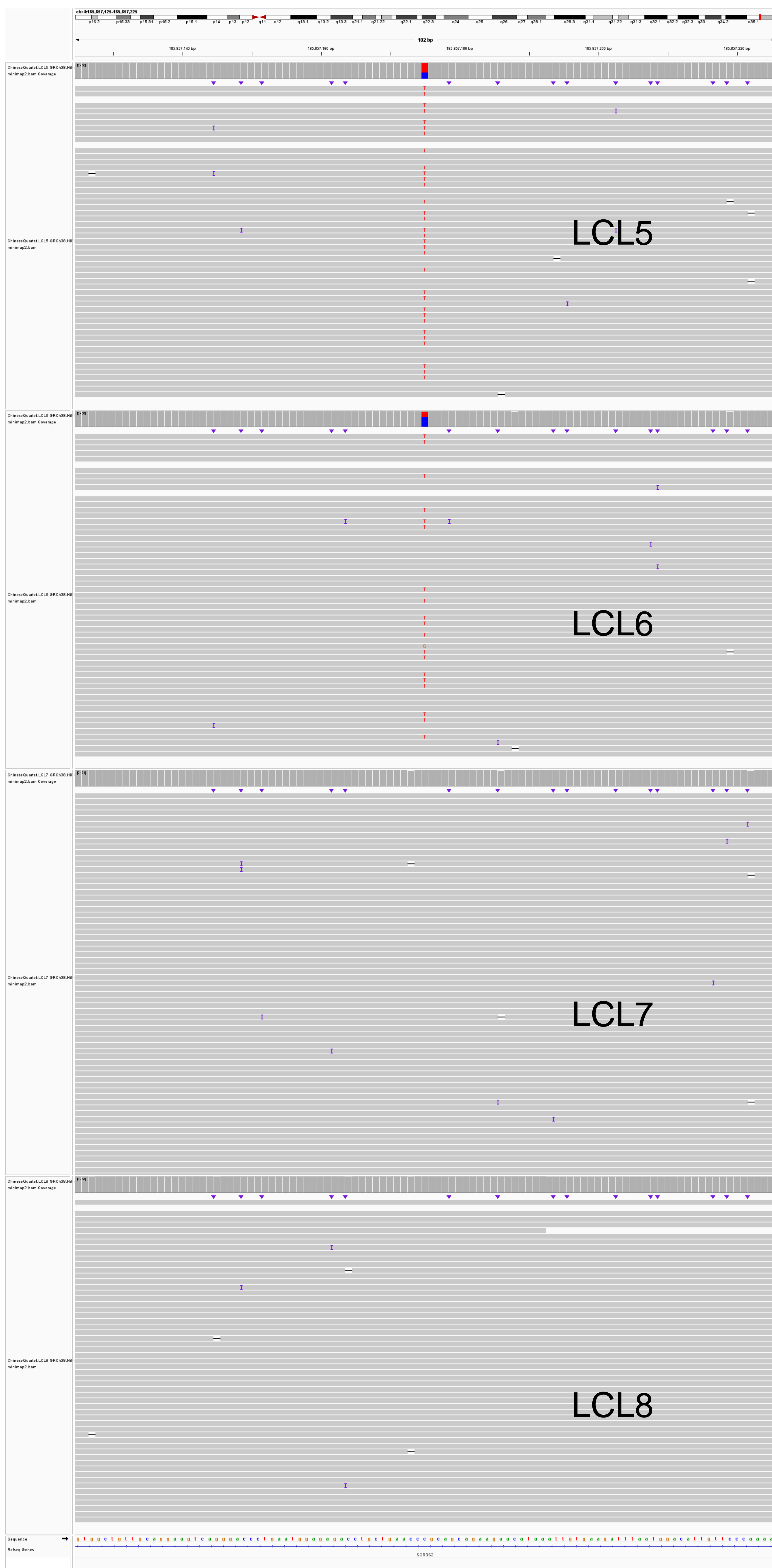


HiFi reads

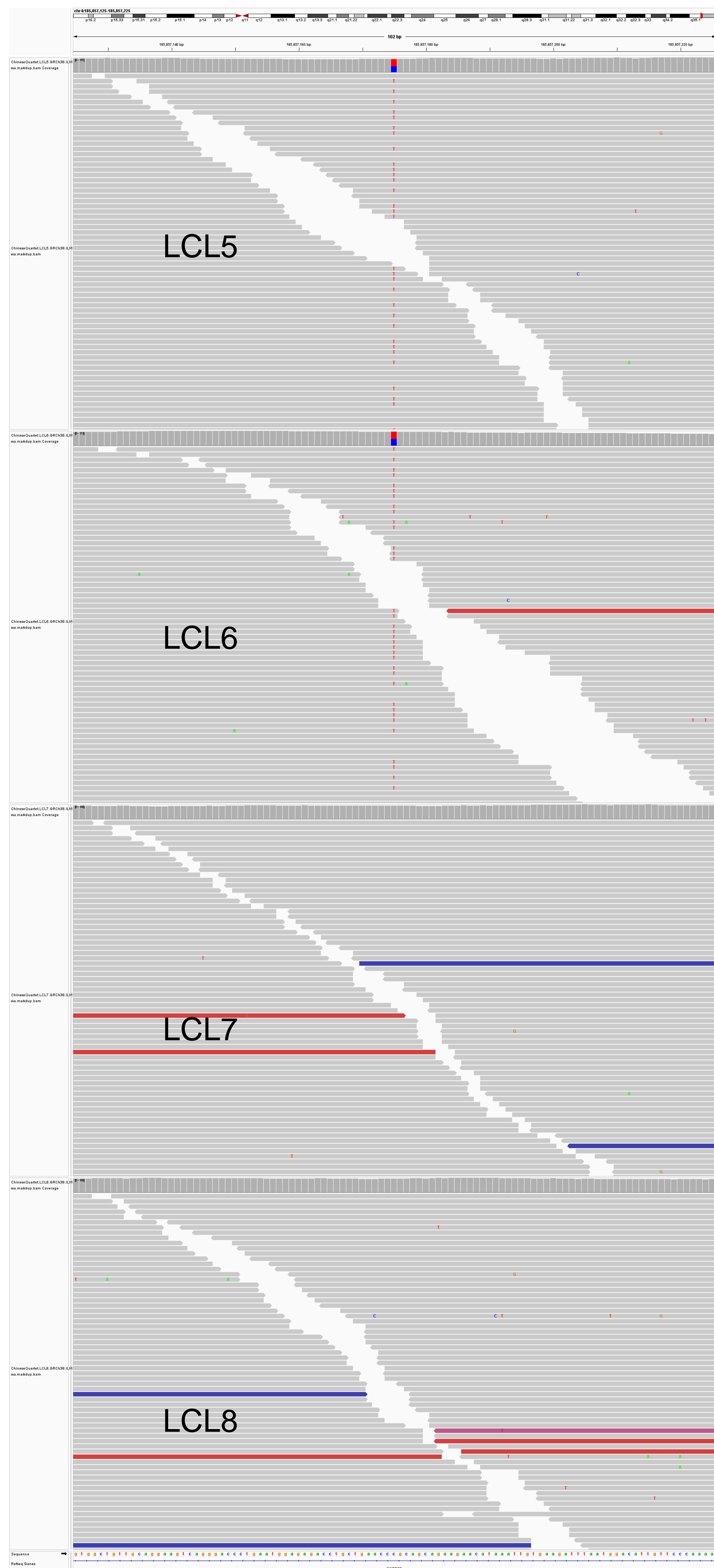


Illumina reads

# POS:chr4:185857175 Report DeNovo mutation by ILM



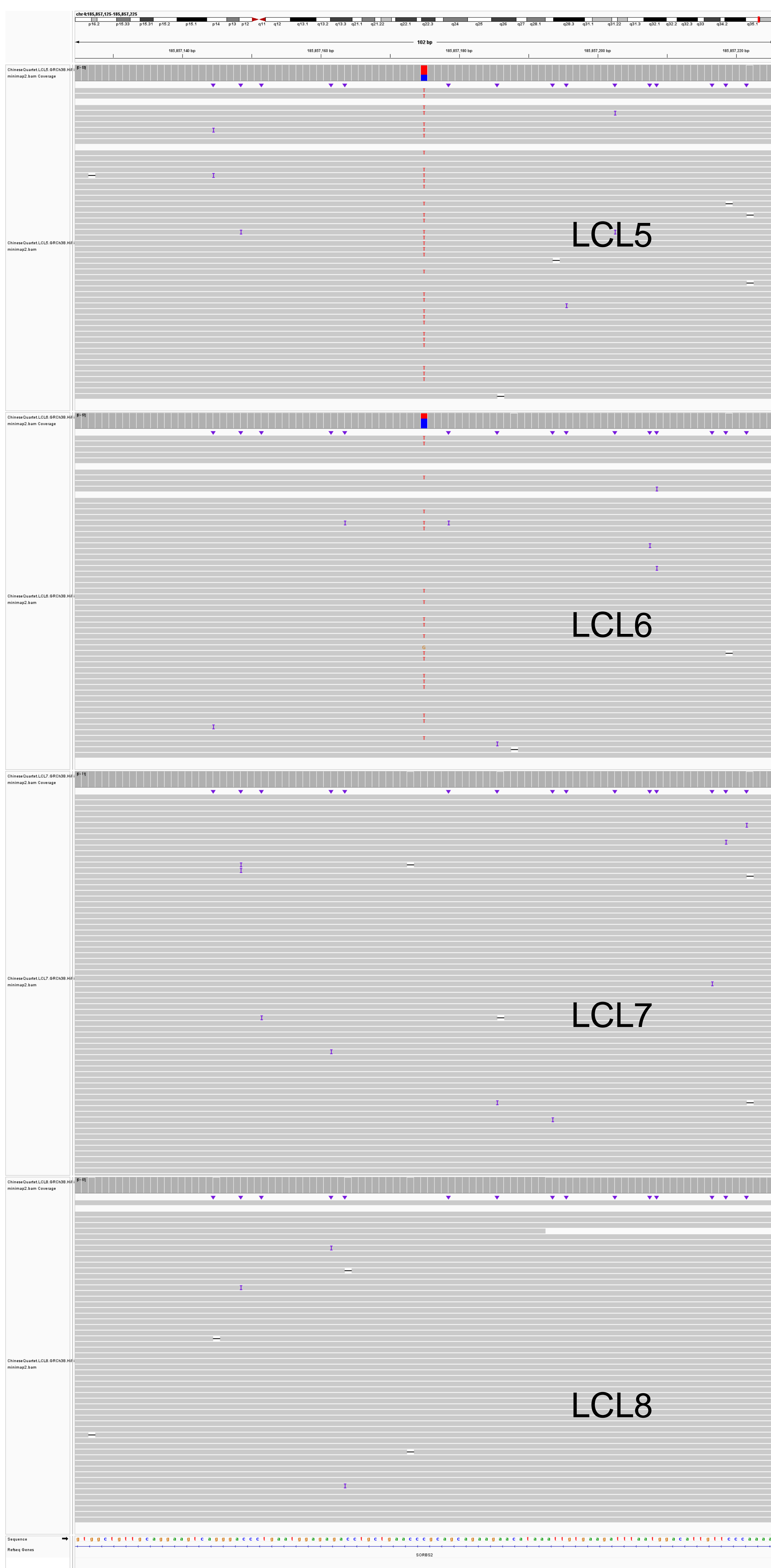
HiFi reads



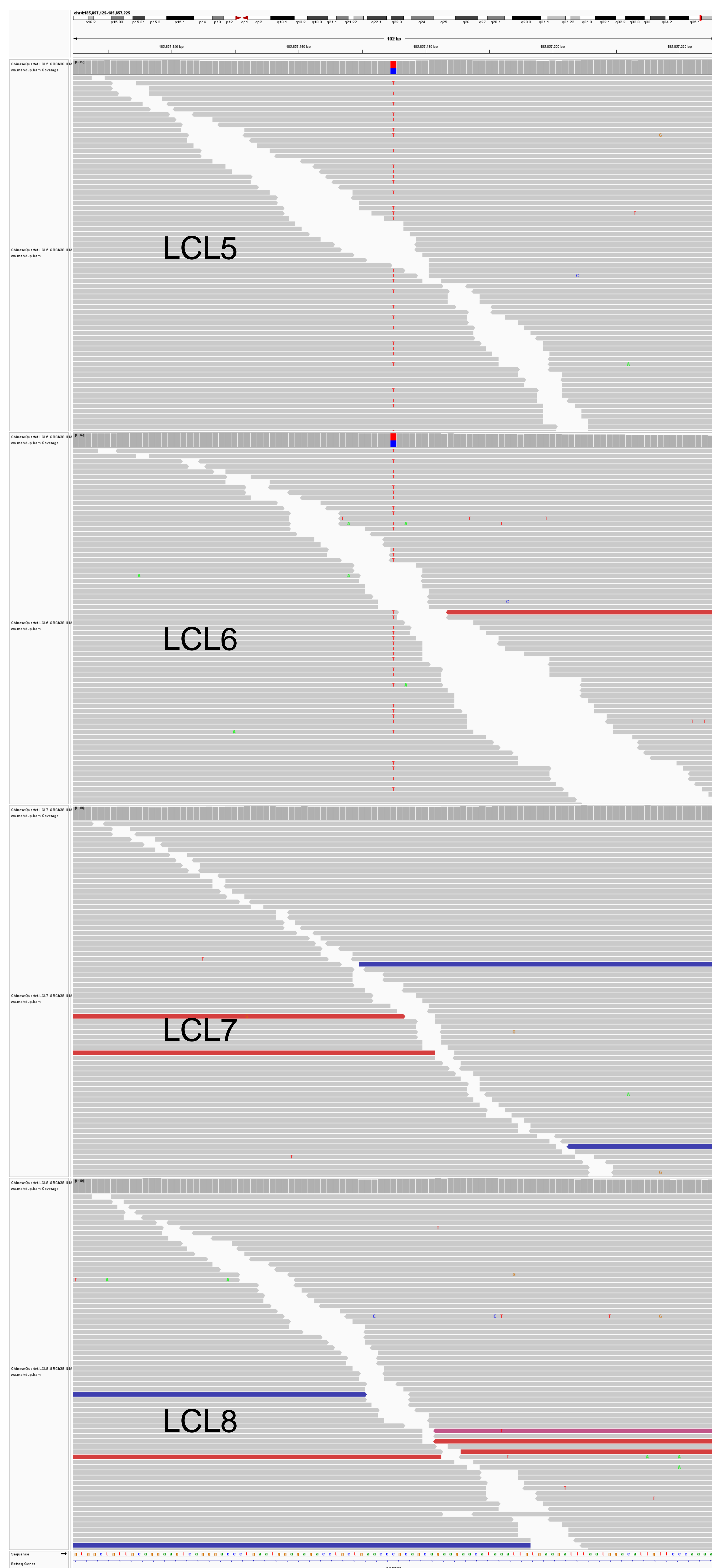
Illumina reads



# POS:chr4:185857175 Report DeNovo mutation by HiFi



HiFi reads

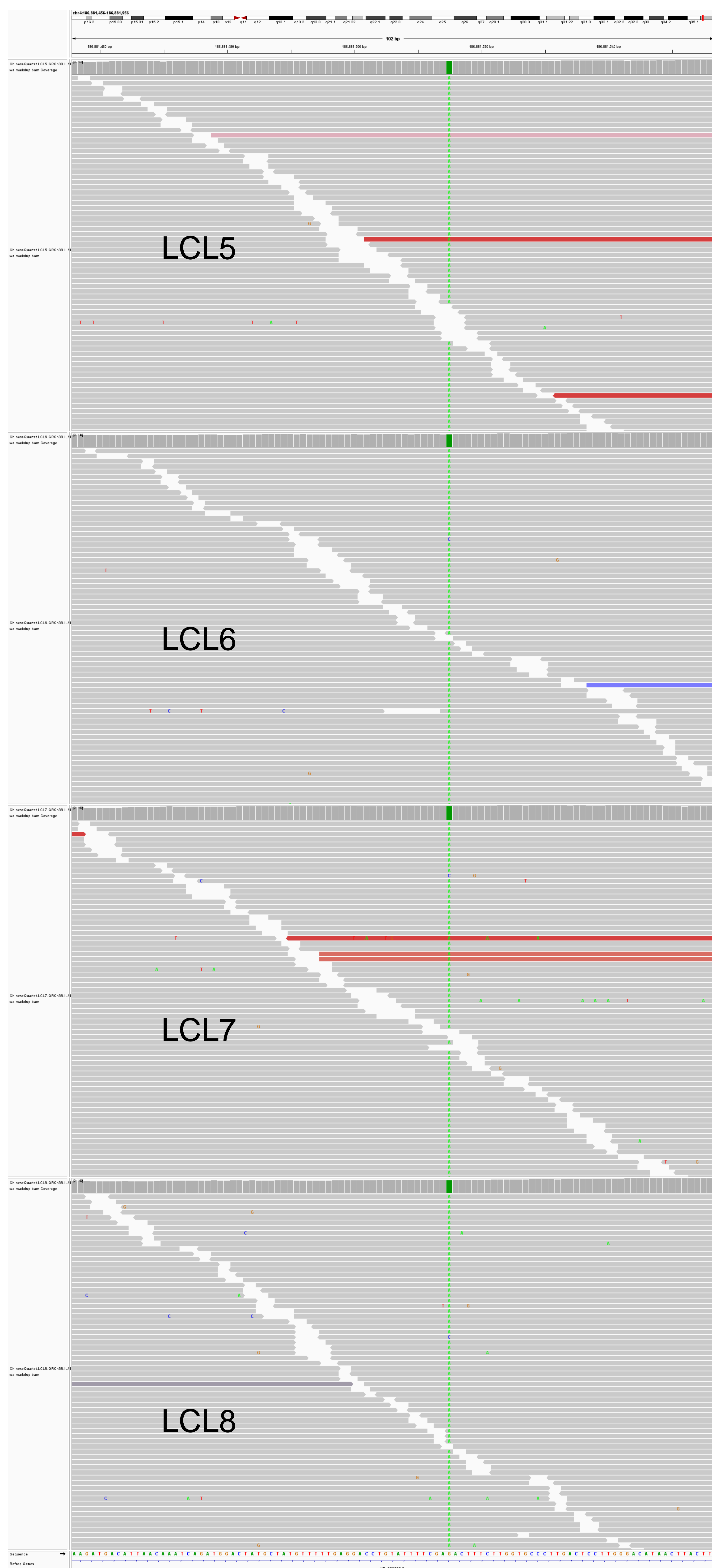


Illumina reads

# POS:chr4:186881506 Report Somatic mutation by HiFi

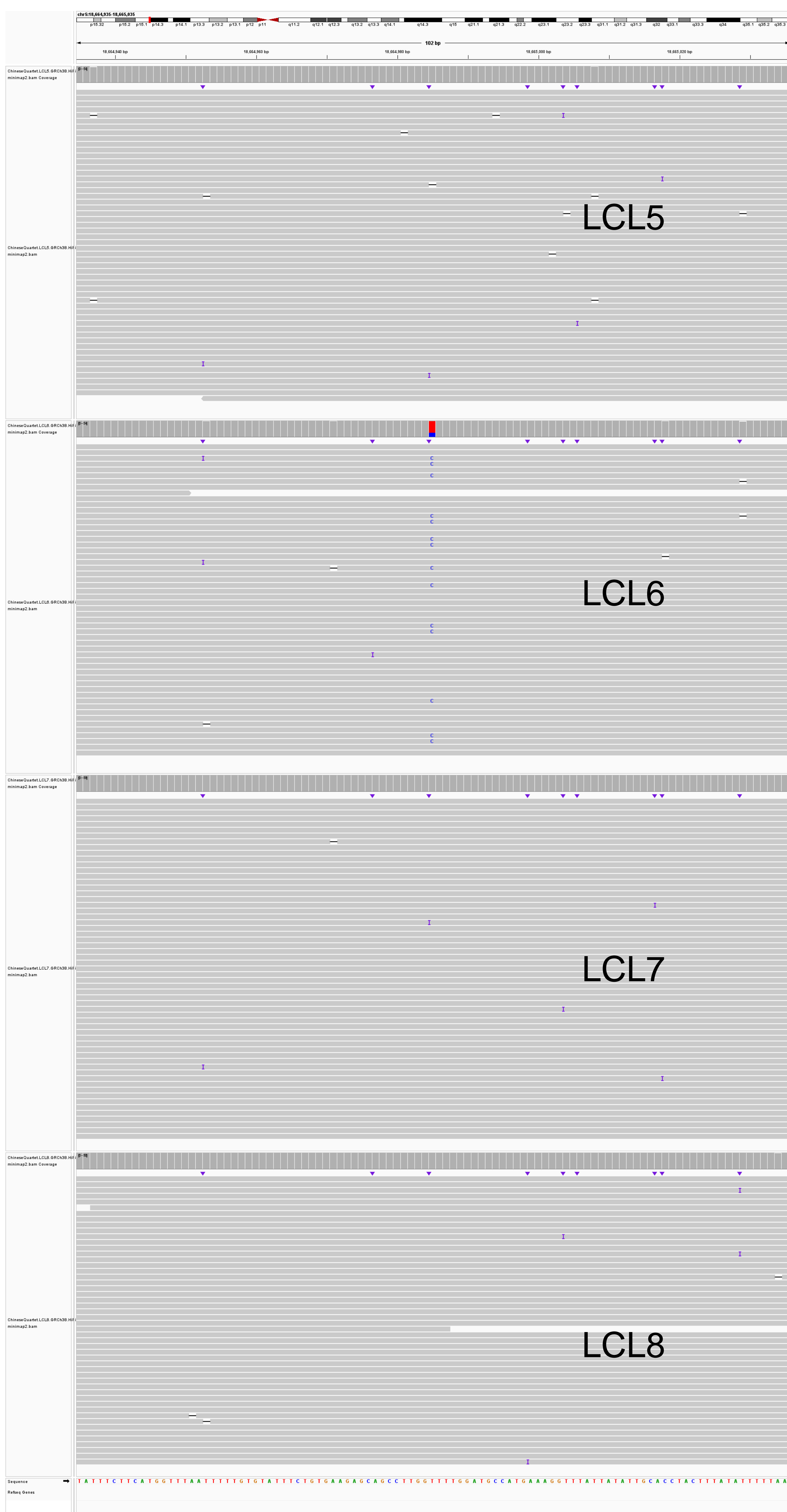


HiFi reads

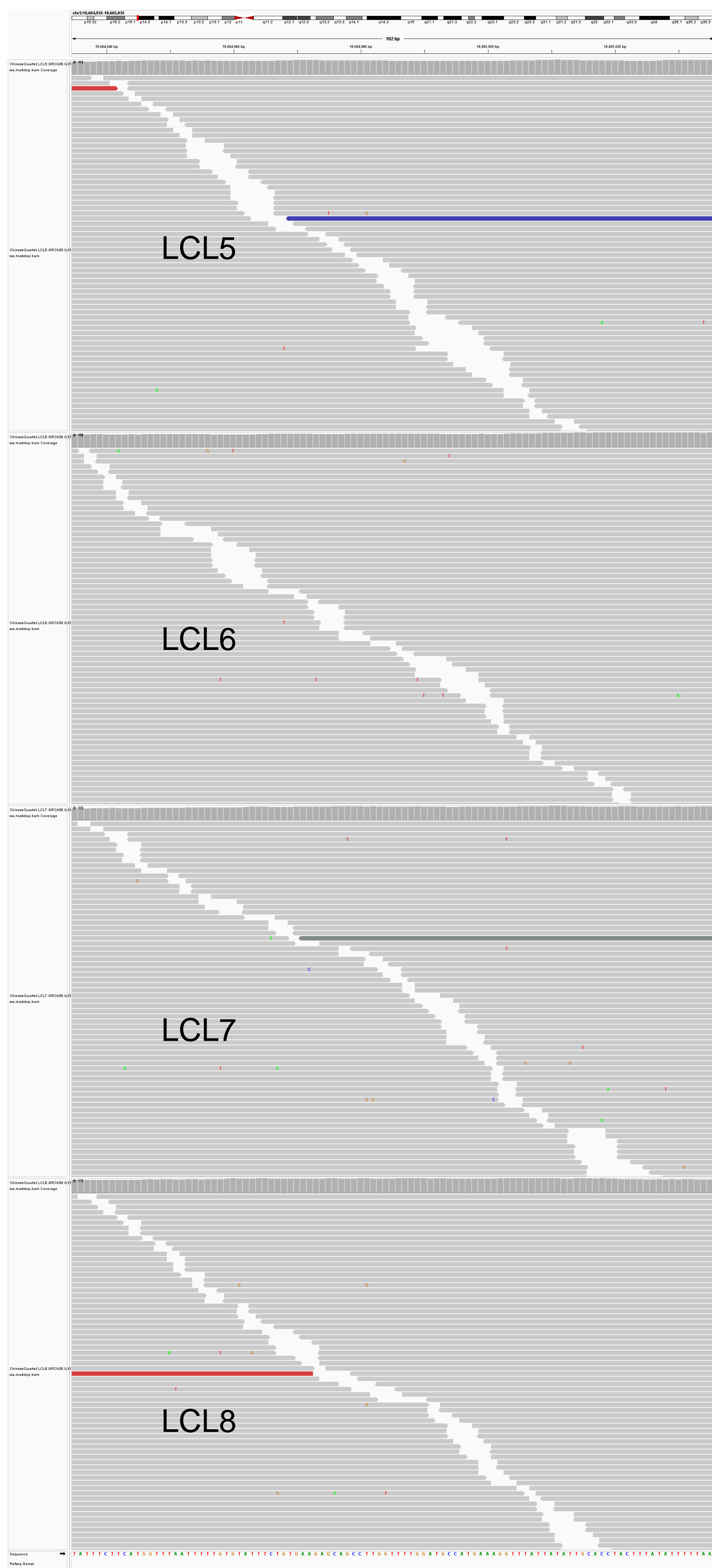


Illumina reads

# POS:chr5:18664985 Report Somatic mutation by HiFi

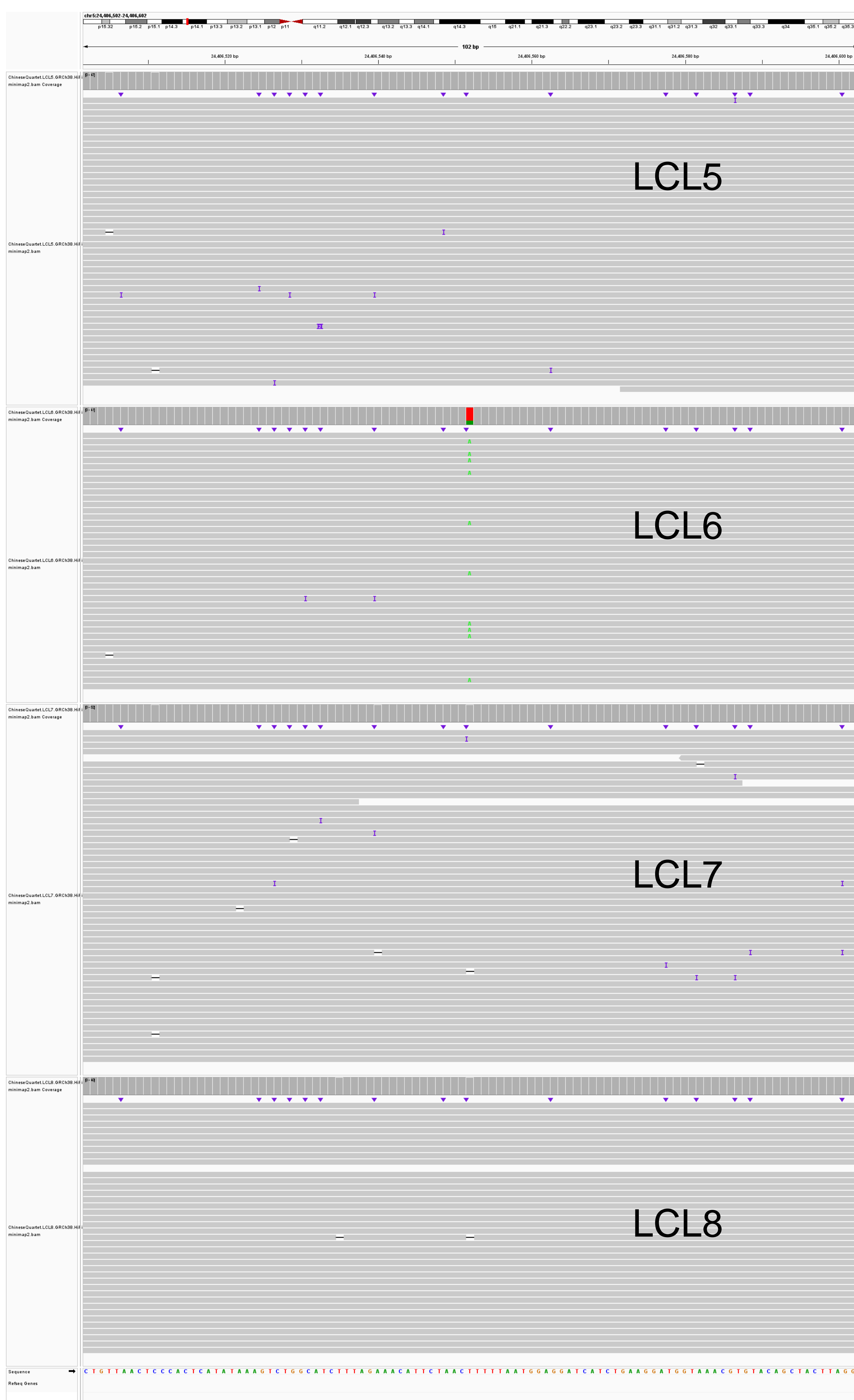


HiFi reads

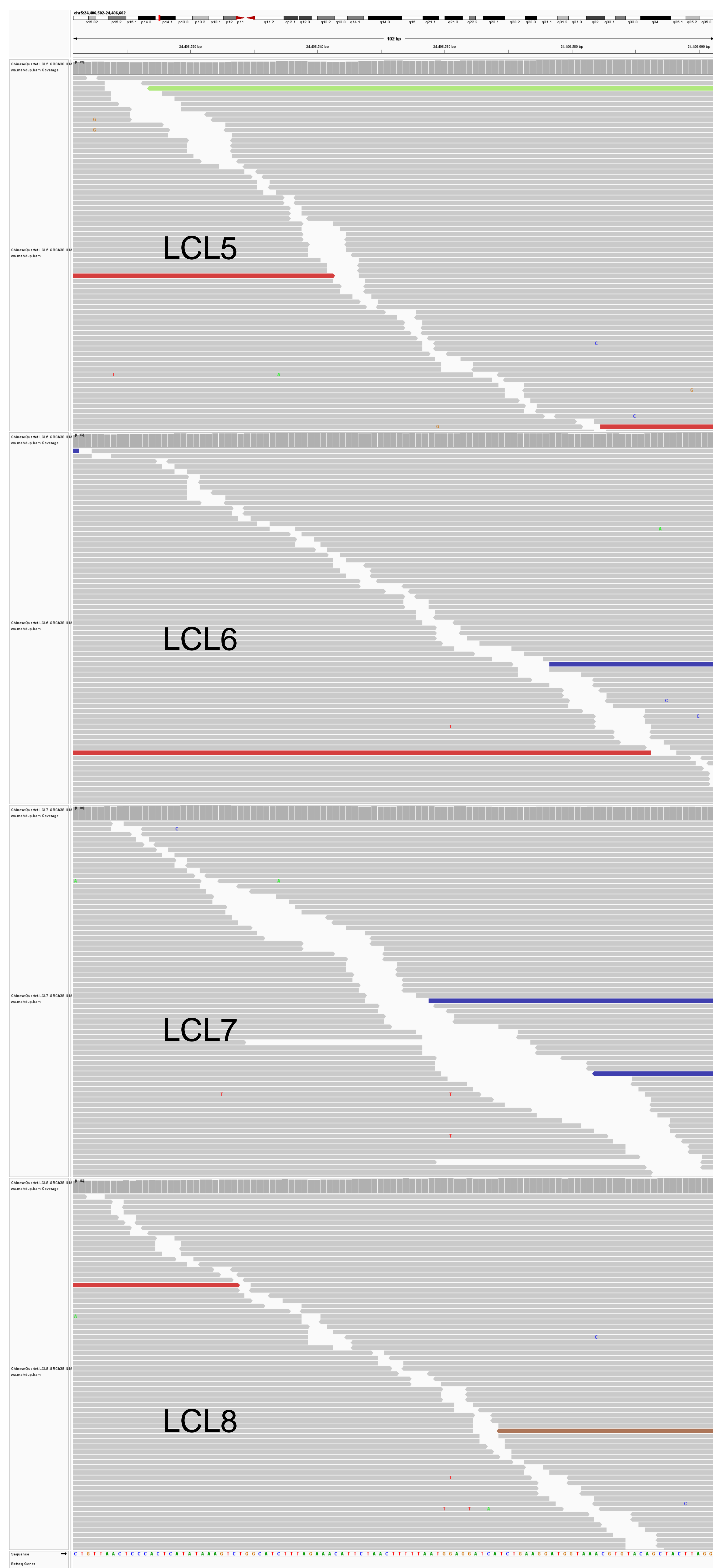


Illumina reads

# POS:chr5:24406552 Report Somatic mutation by HiFi



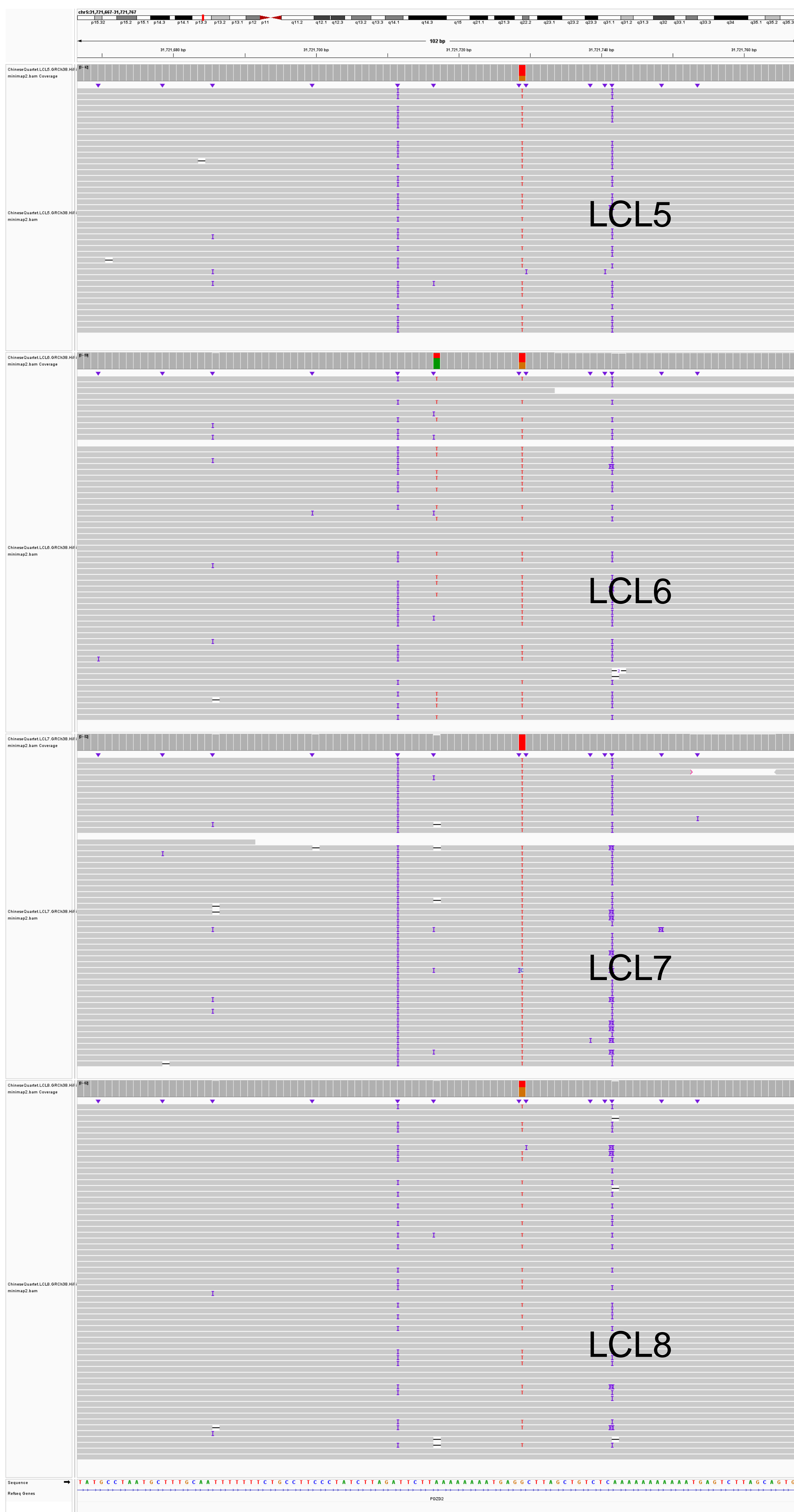
HiFi reads



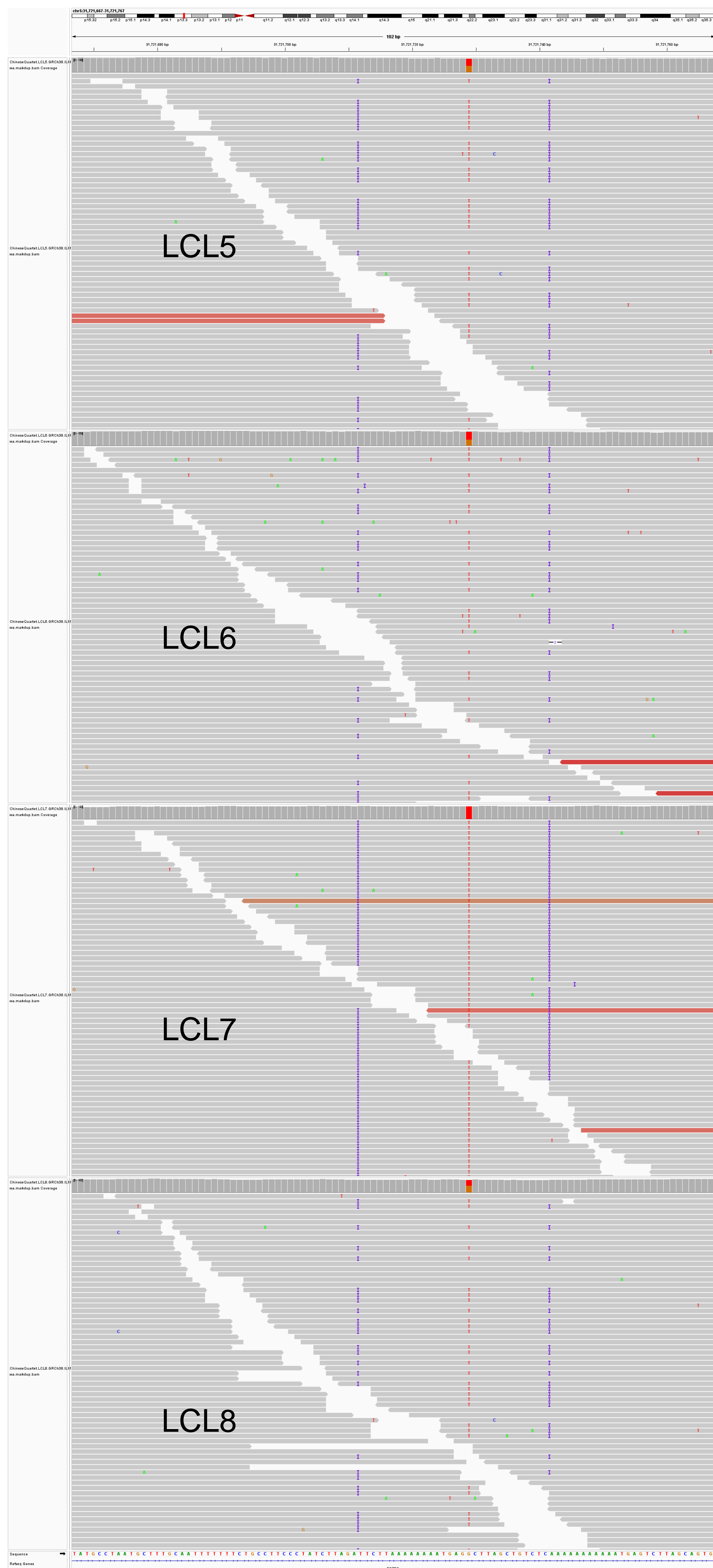
Illumina reads



# POS:chr5:31721717 Report Somatic mutation by HiFi

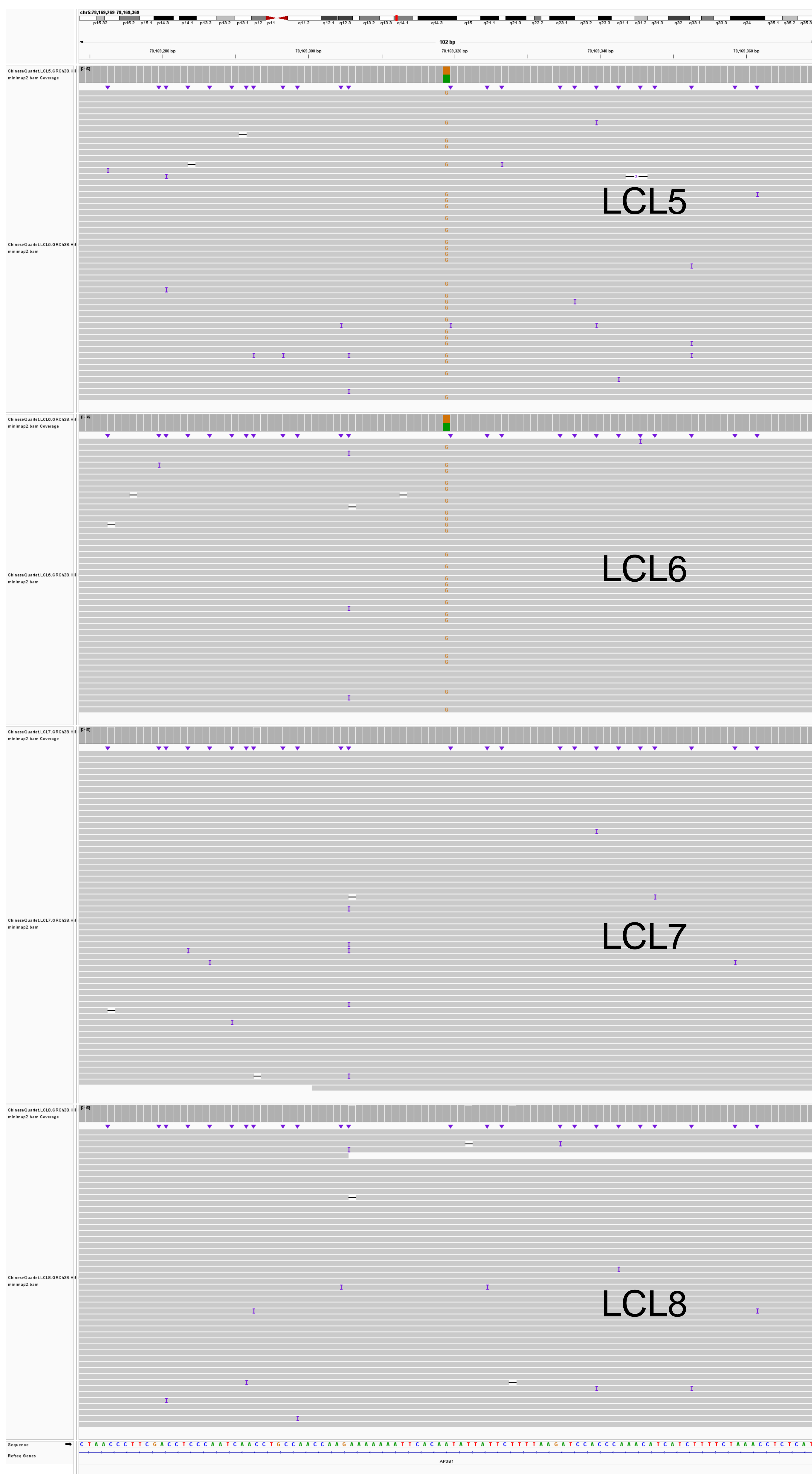


HiFi reads

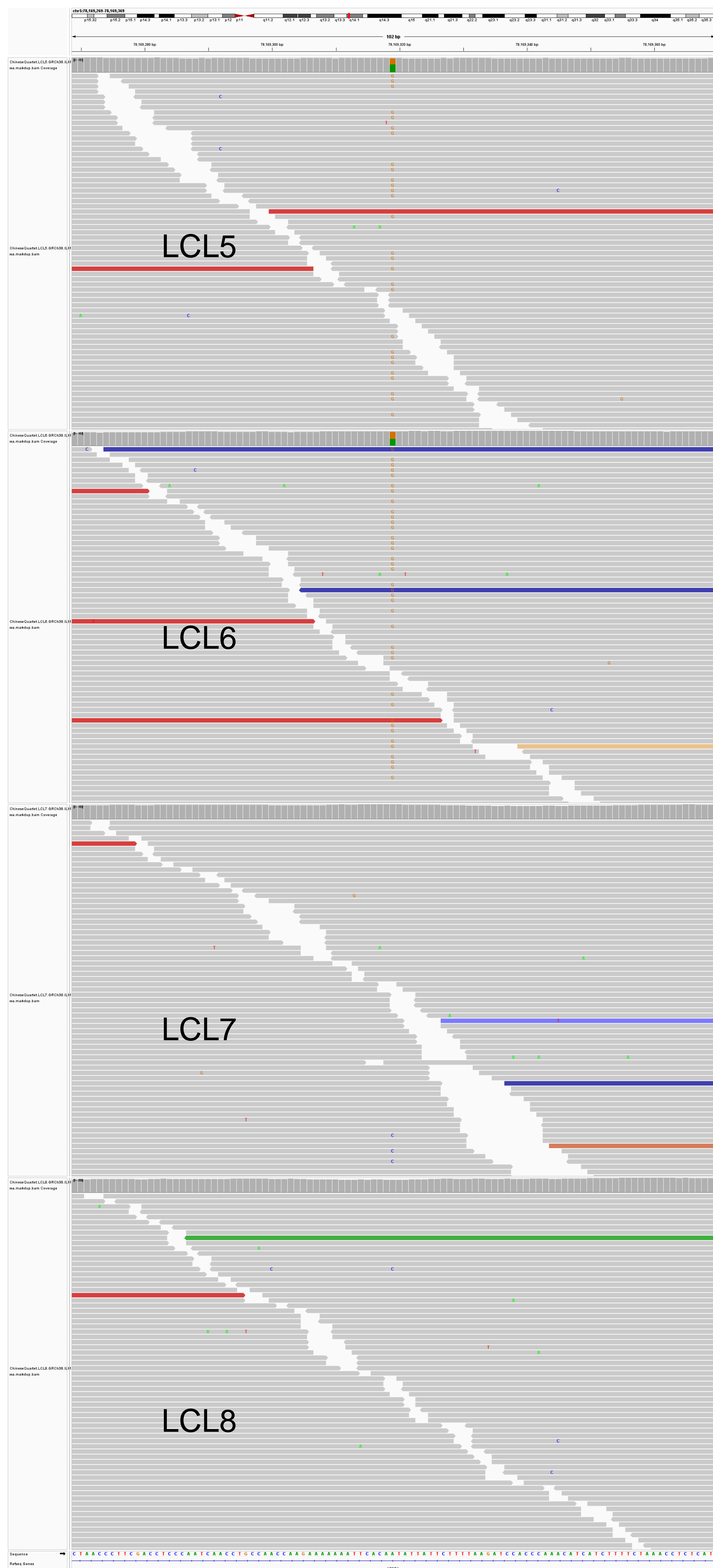


Illumina reads

# POS:chr5:78169319 Report DeNovo mutation by ILM

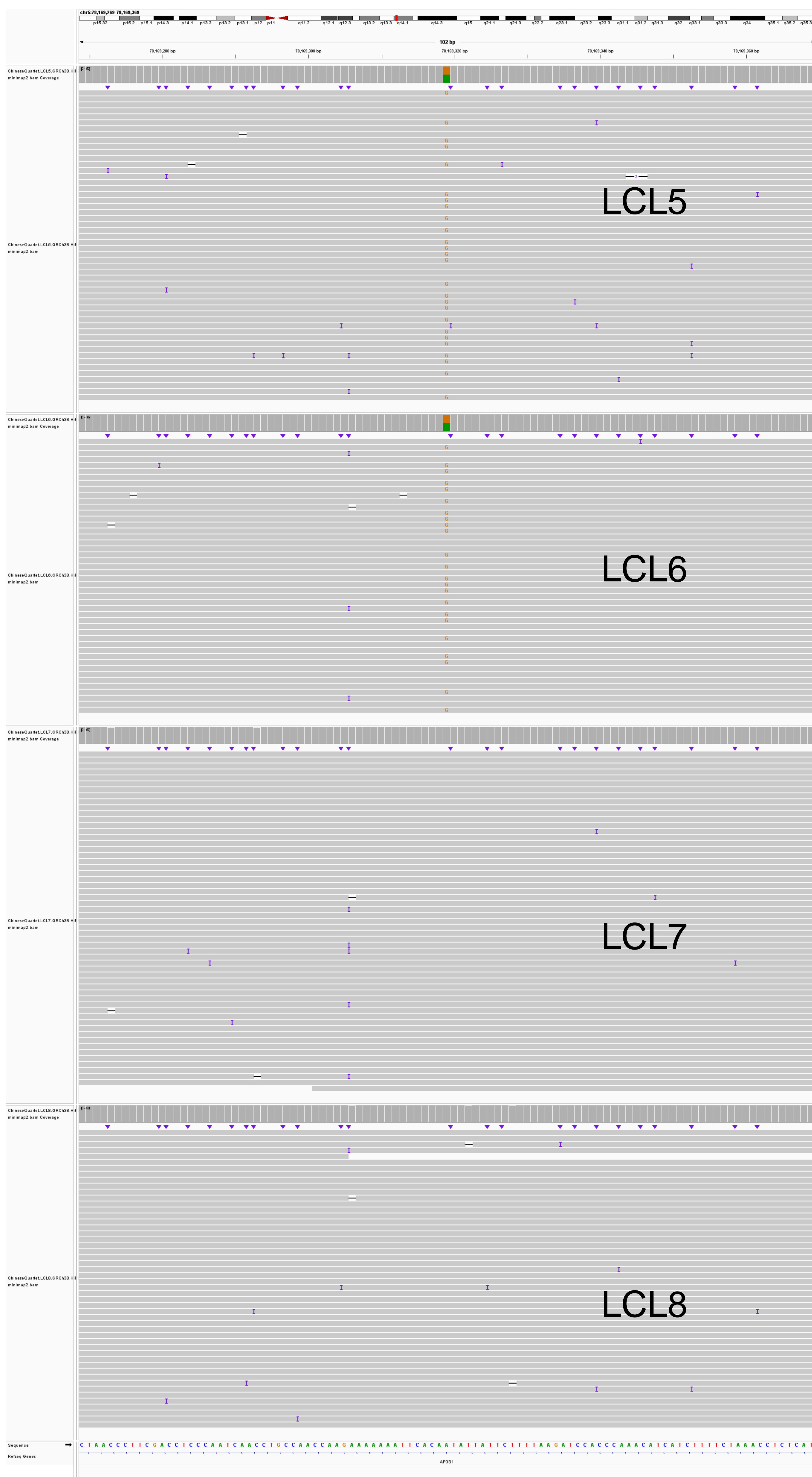


HiFi reads

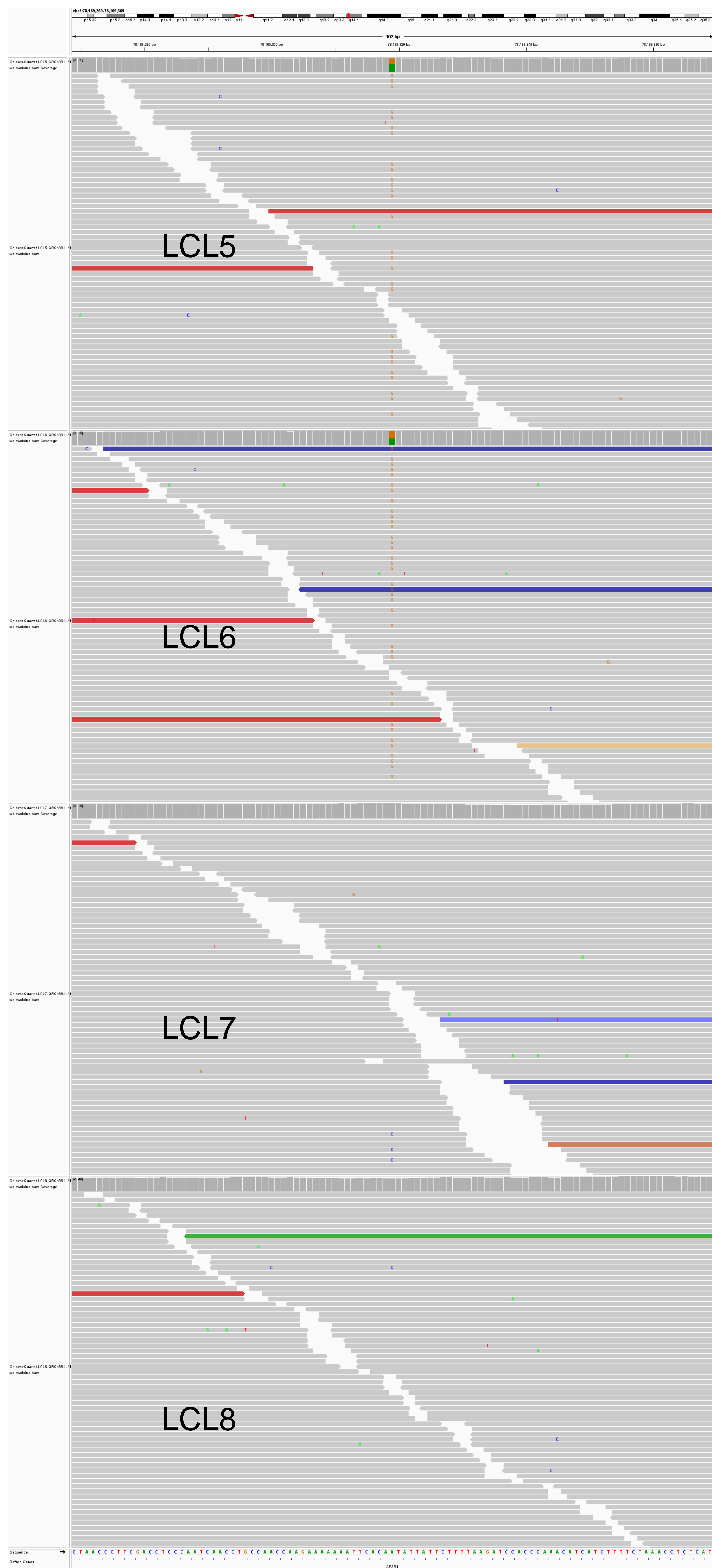


Illumina reads

# POS:chr5:78169319 Report DeNovo mutation by HiFi

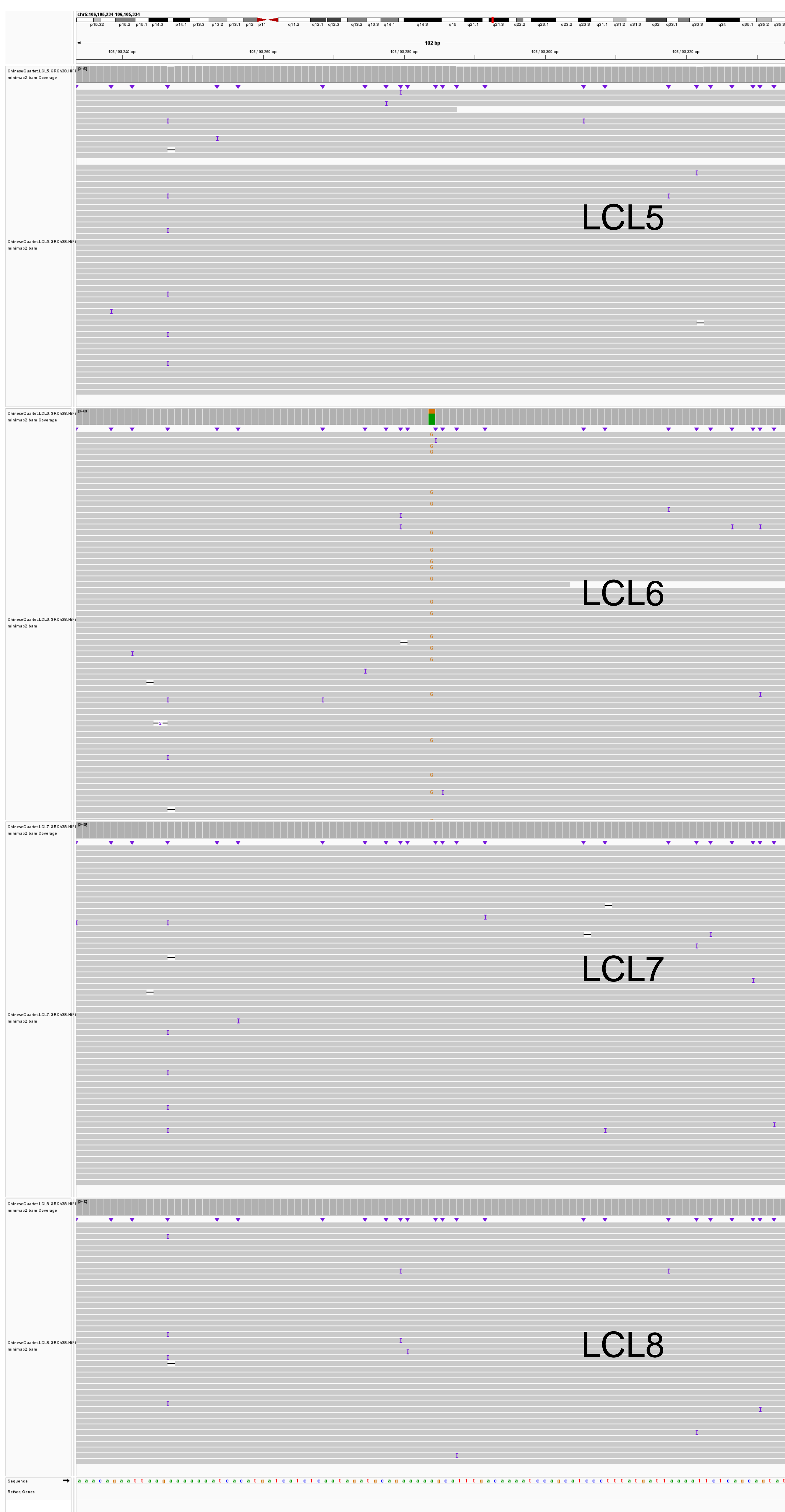


HiFi reads

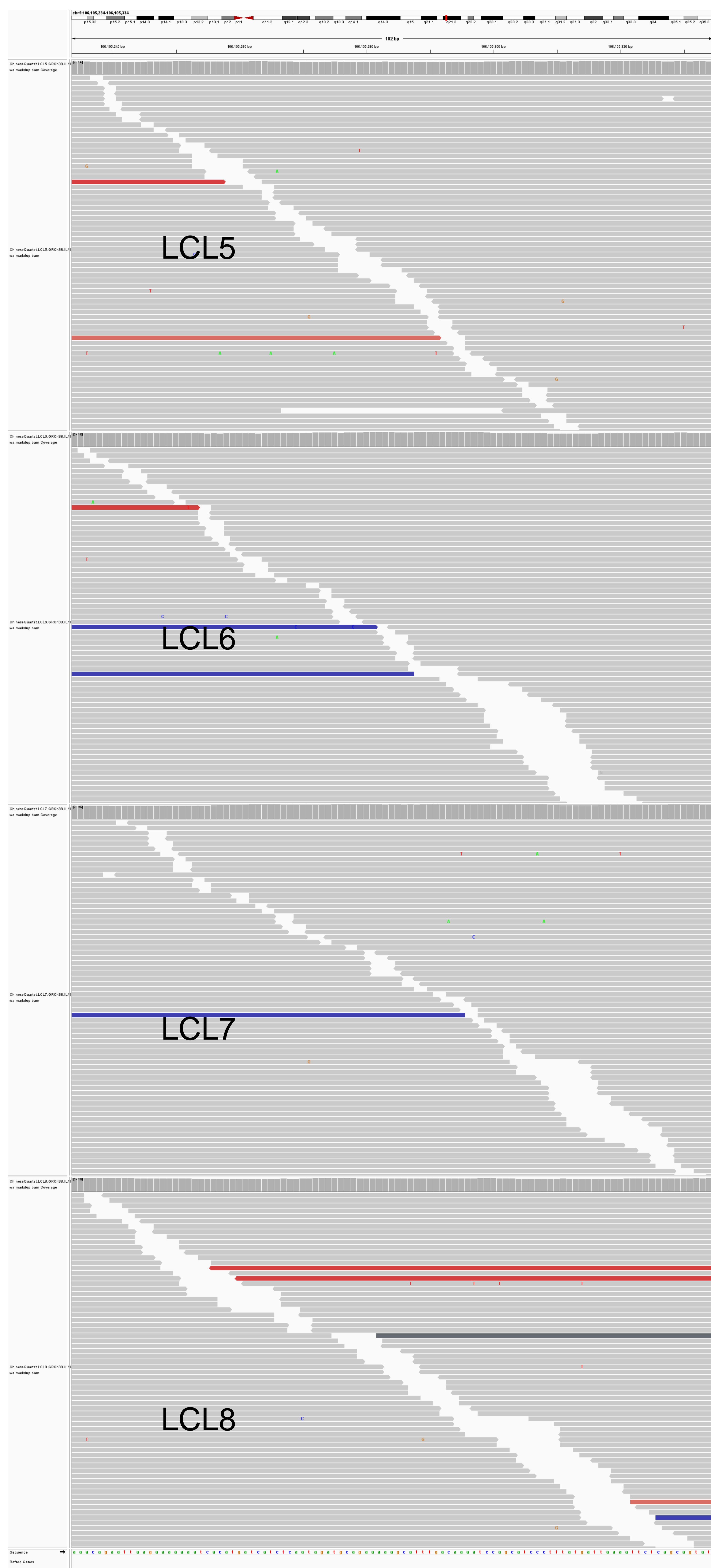


Illumina reads

# POS:chr5:106105284 Report Somatic mutation by HiFi



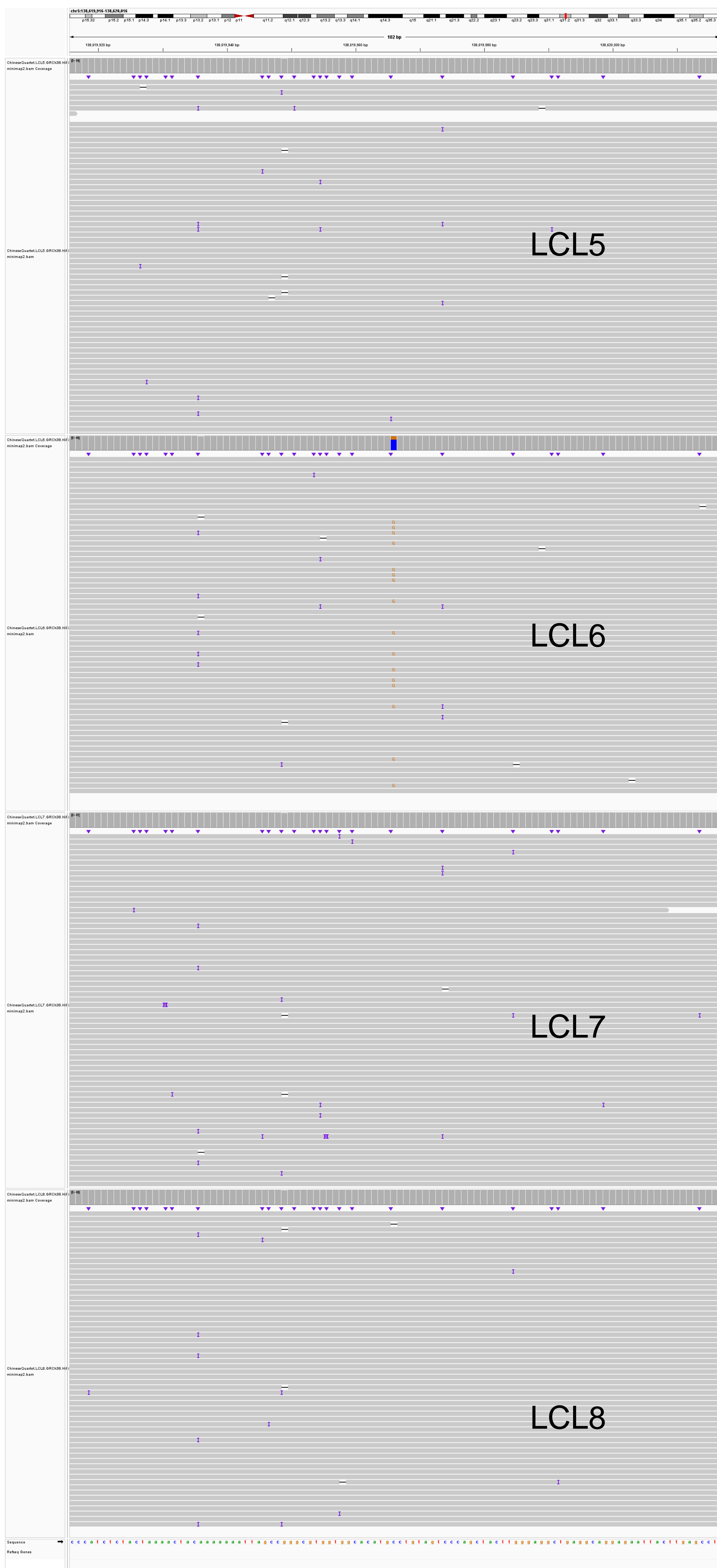
HiFi reads



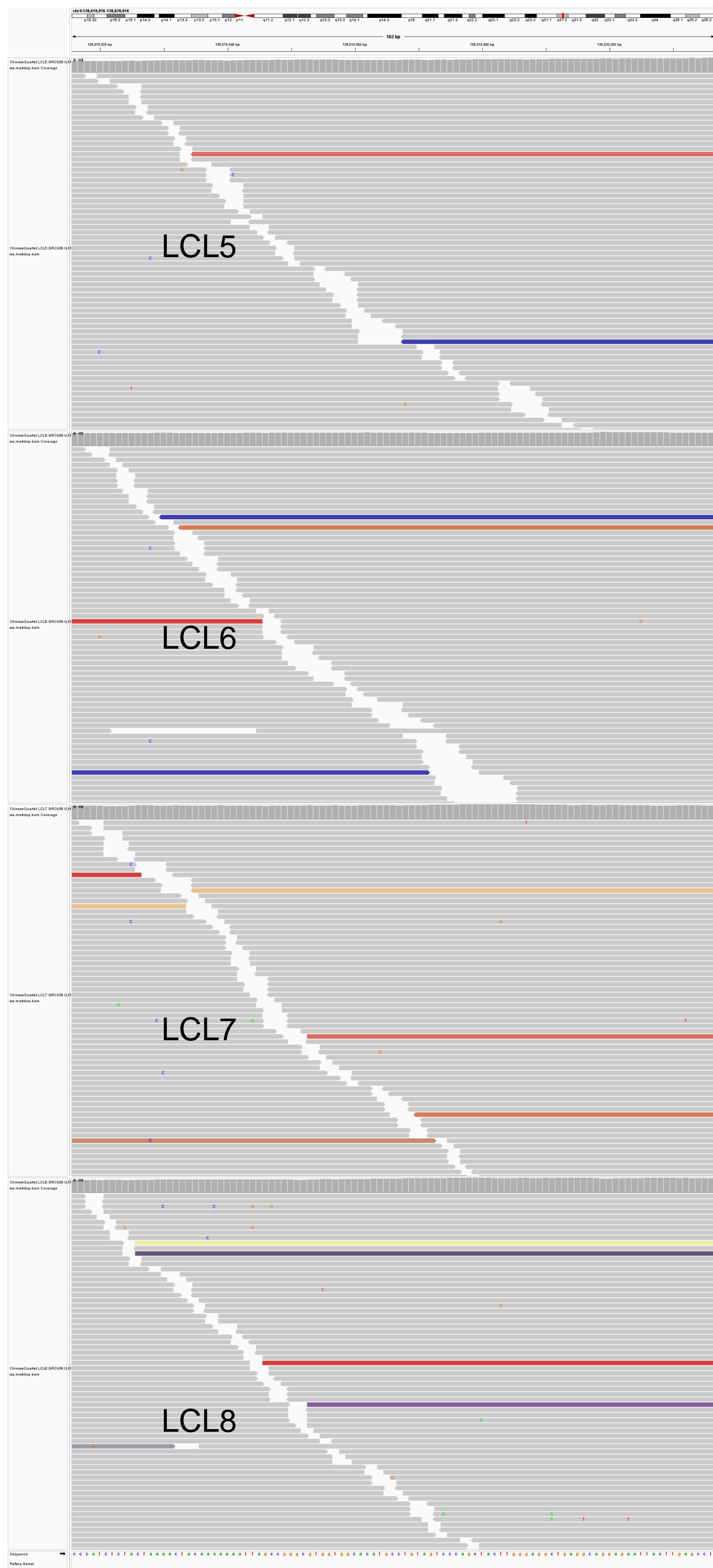
Illumina reads



# POS:chr5:138619966 Report Somatic mutation by HiFi

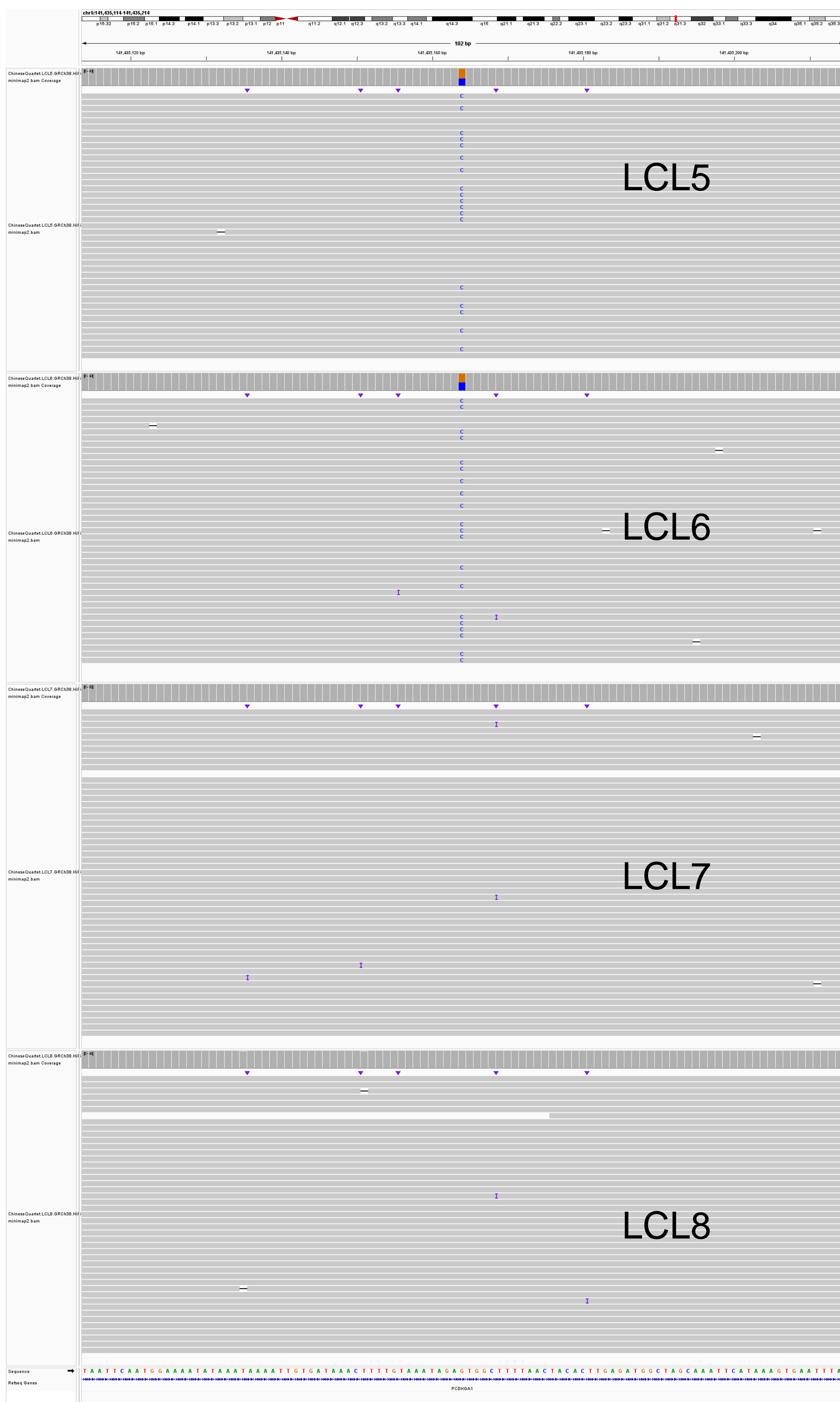


HiFi reads

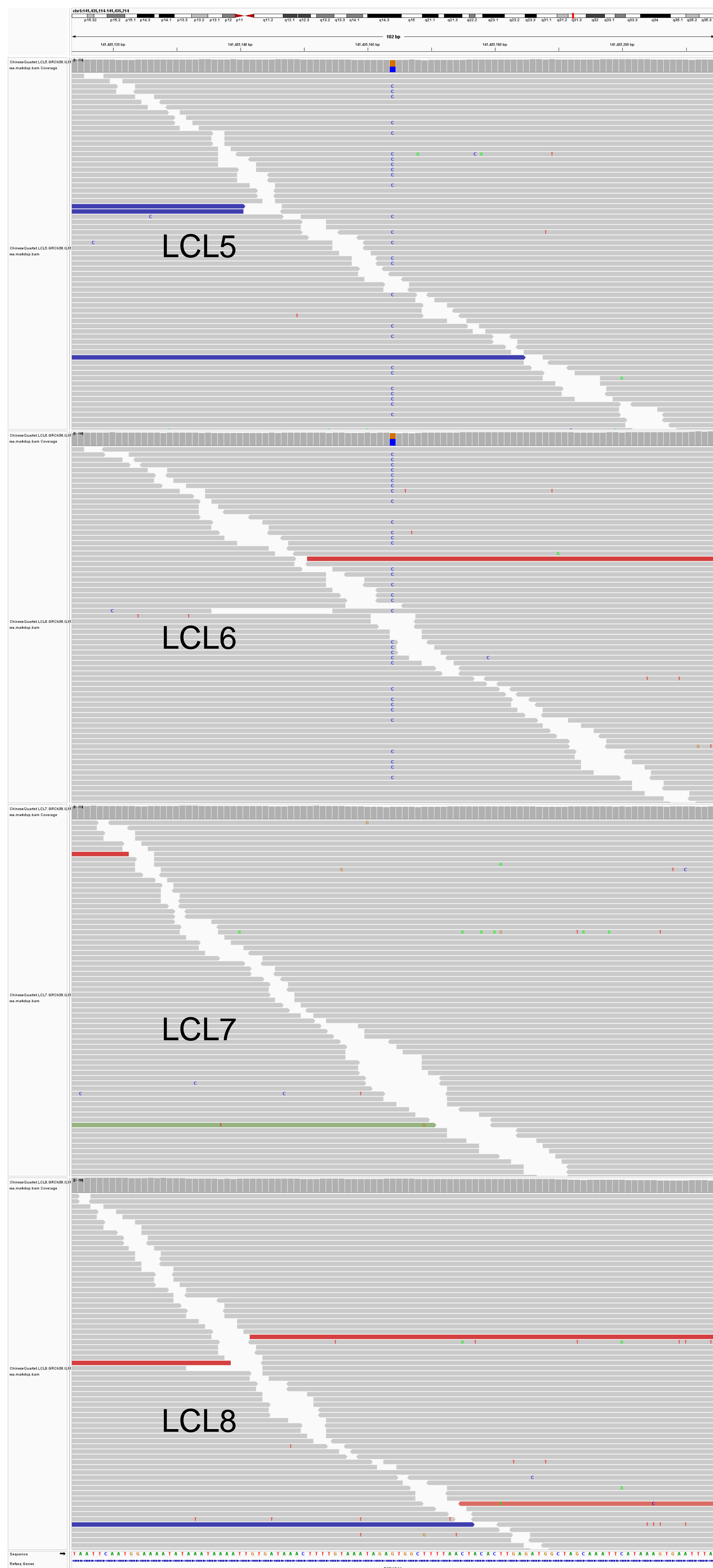


Illumina reads

# POS:chr5:141435164 Report DeNovo mutation by ILM

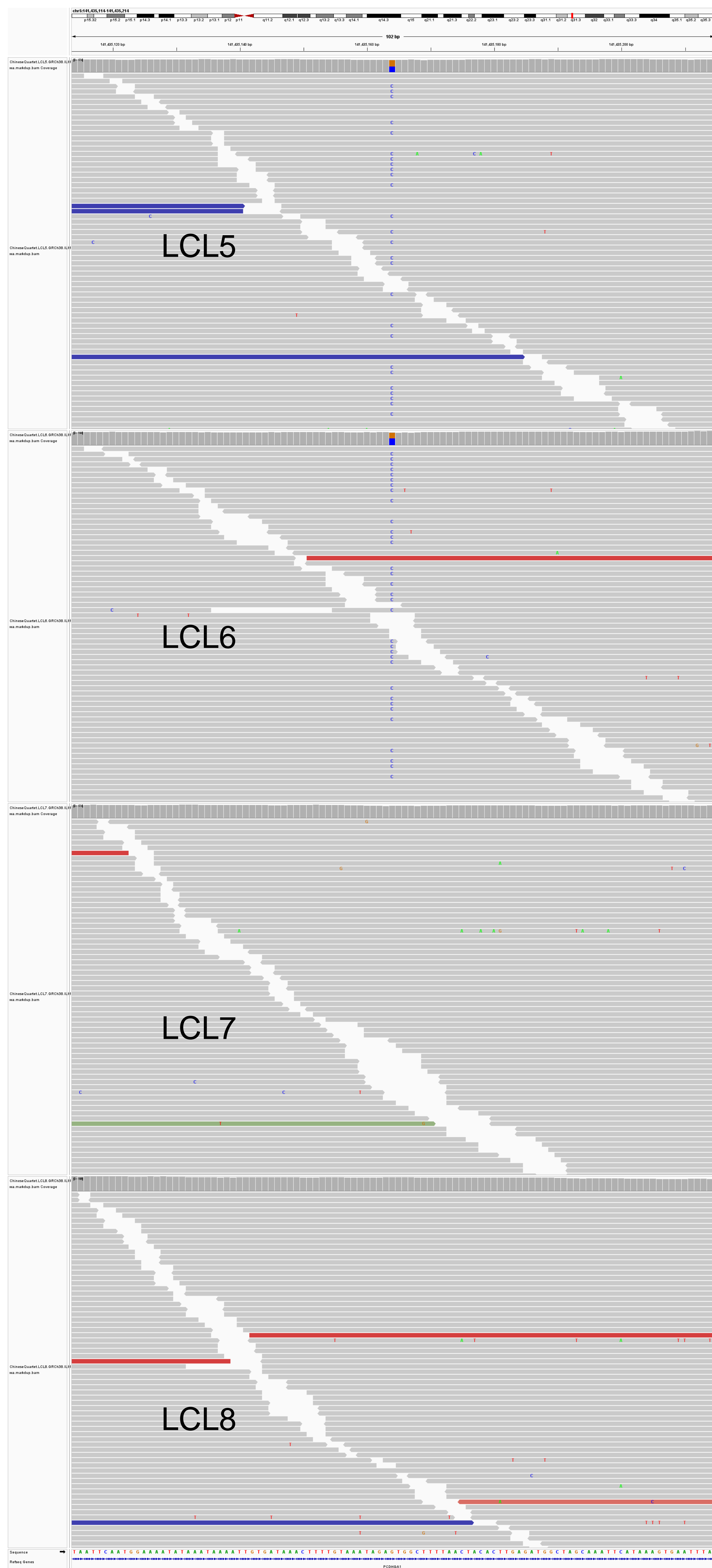
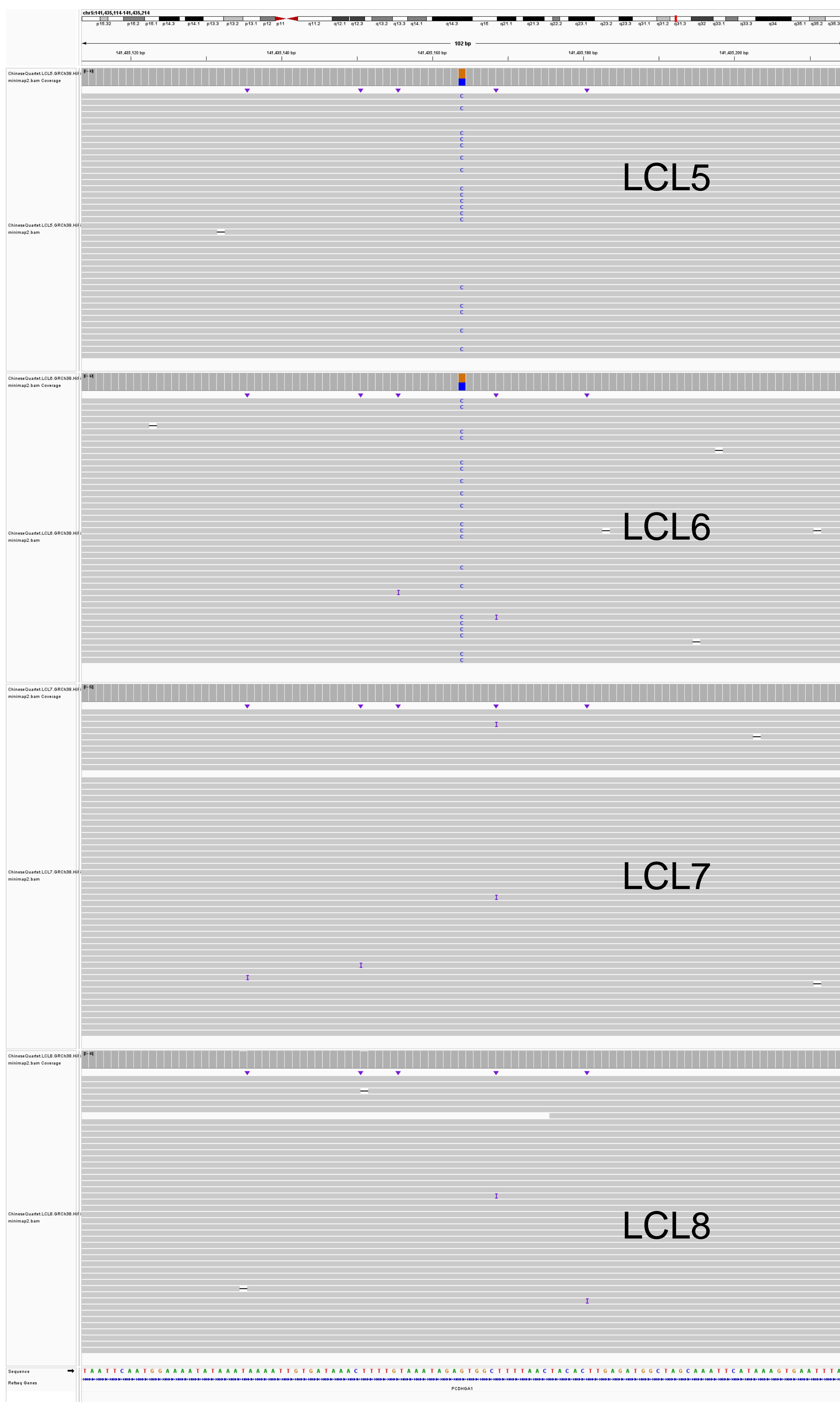


HiFi reads



Illumina reads

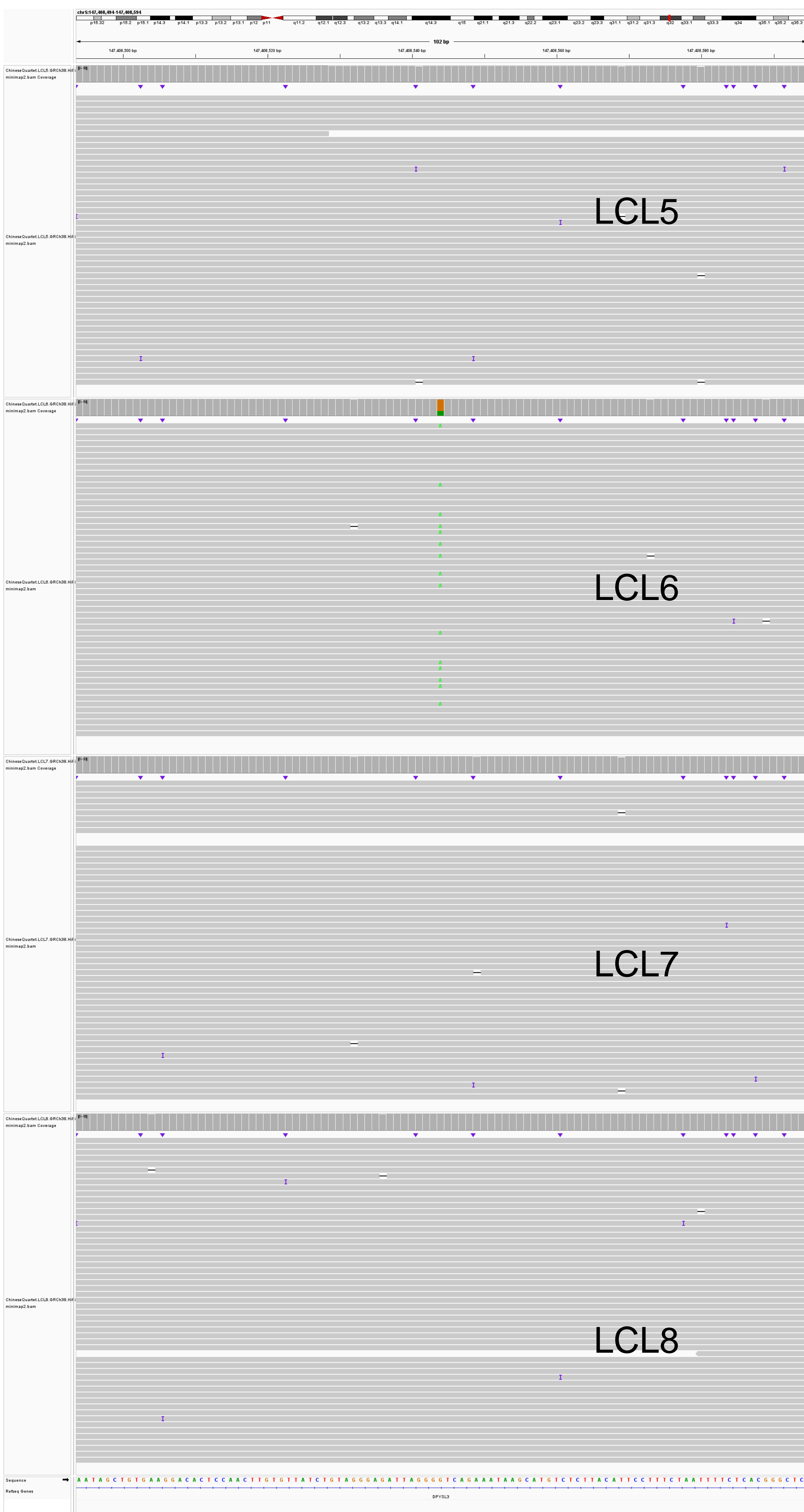
# POS:chr5:141435164 Report DeNovo mutation by HiFi



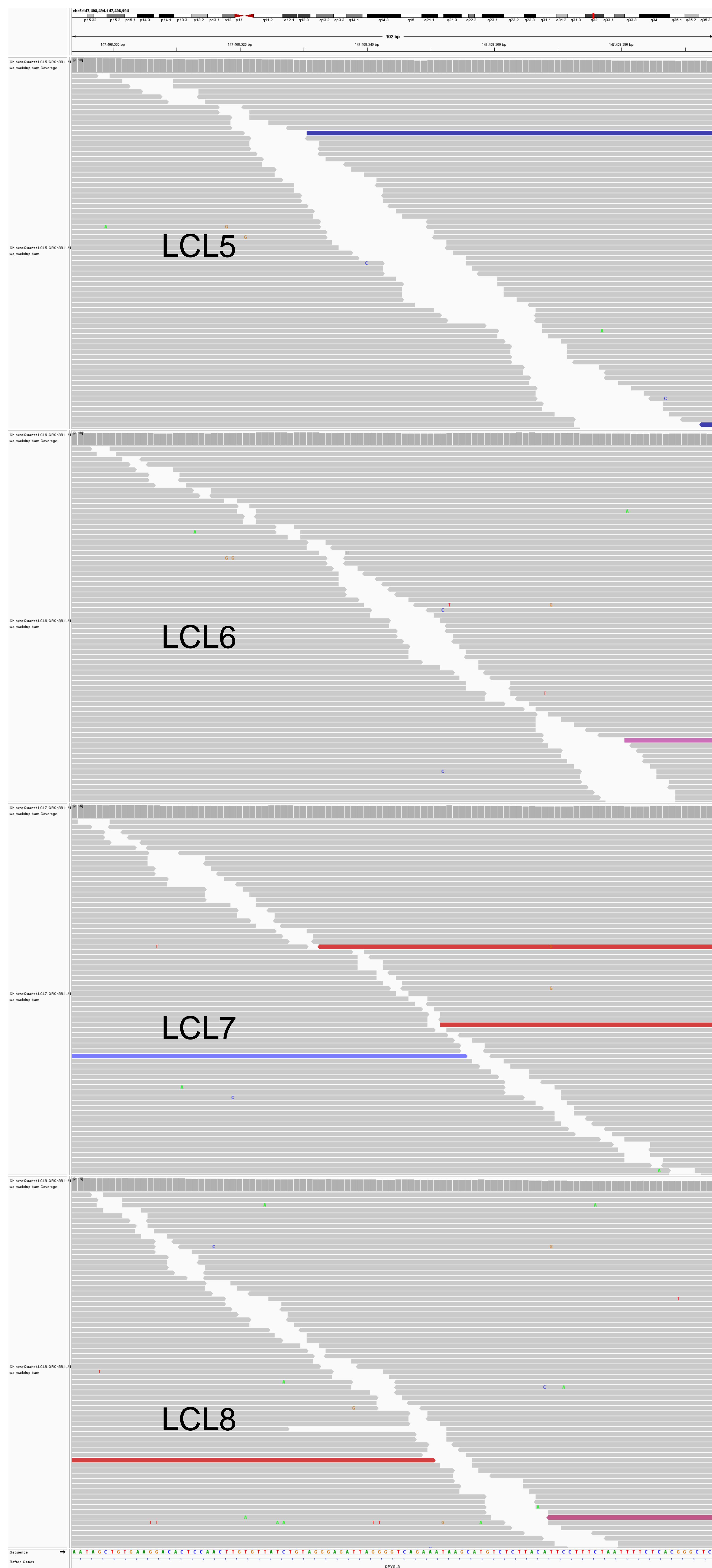
HiFi reads

Illumina reads

# POS:chr5:147408544 Report Somatic mutation by HiFi



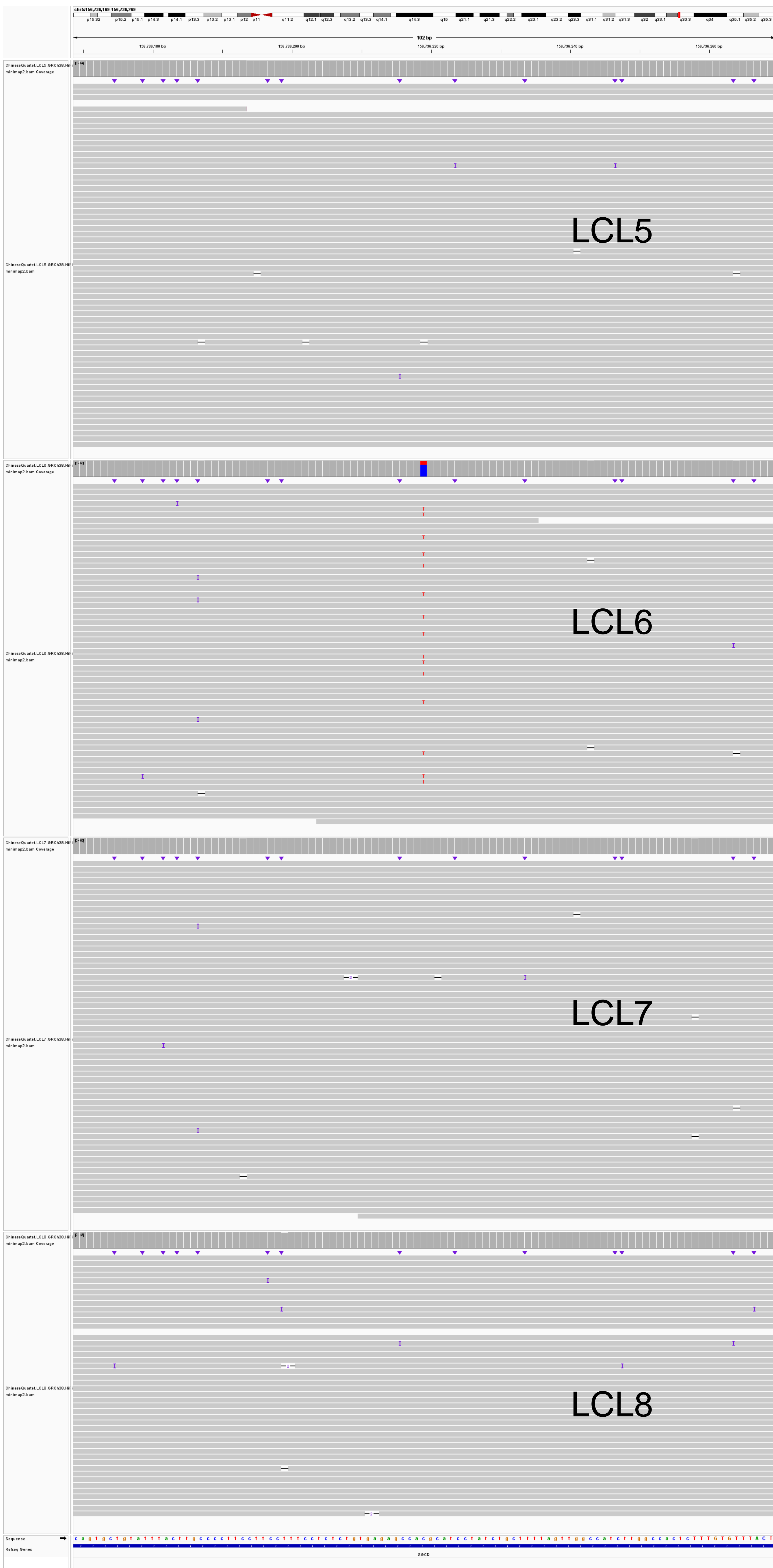
HiFi reads



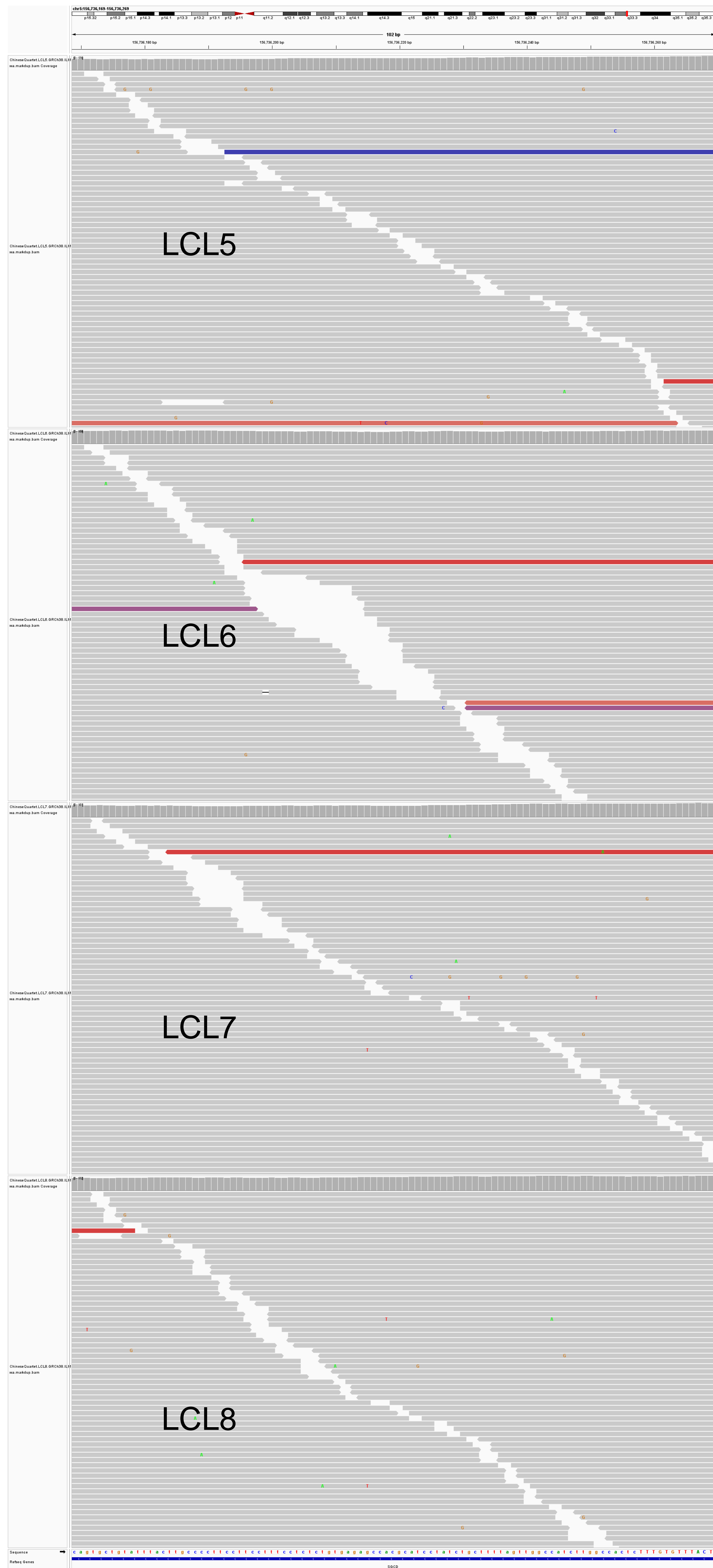
Illumina reads



# POS:chr5:156736219 Report Somatic mutation by HiFi

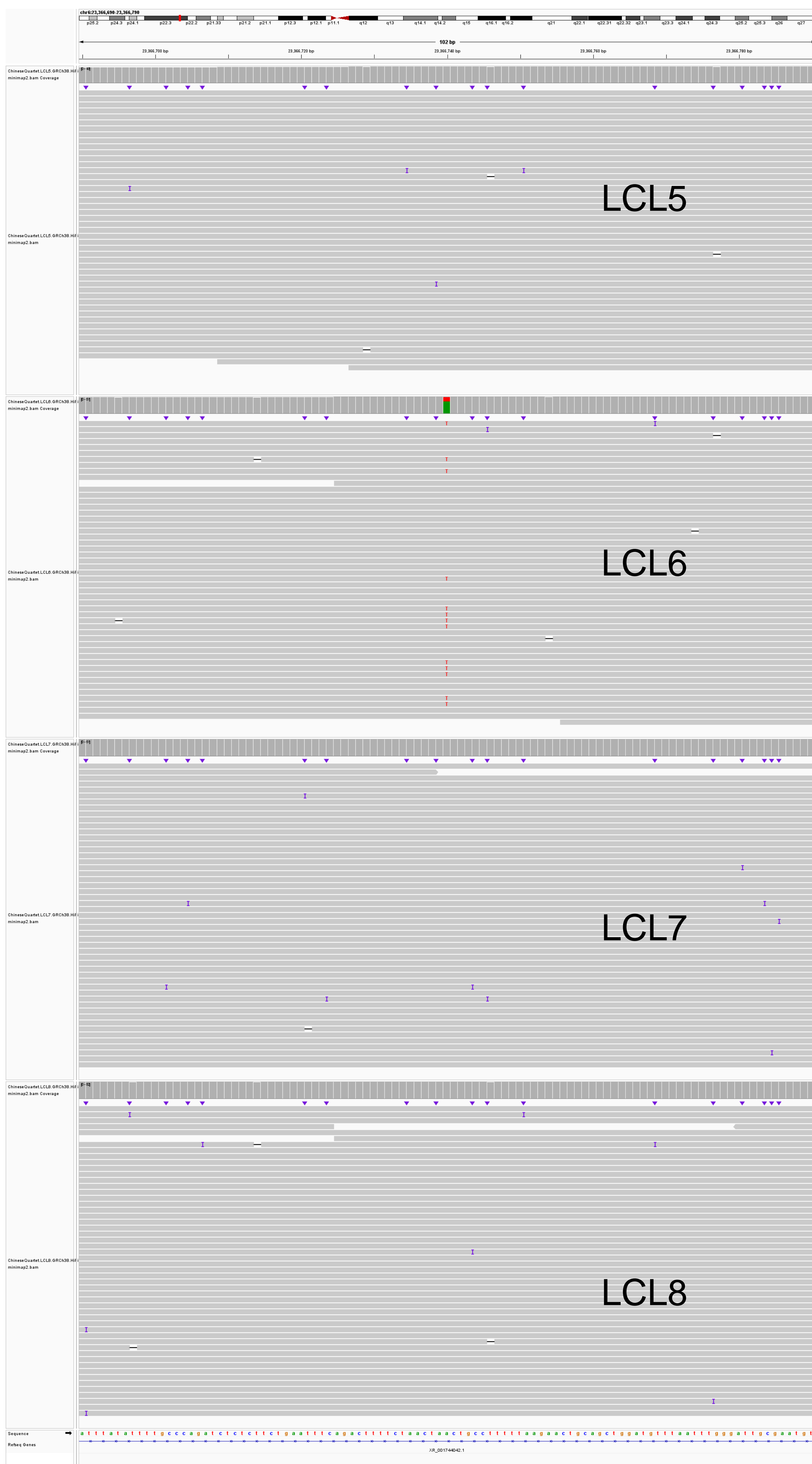


HiFi reads

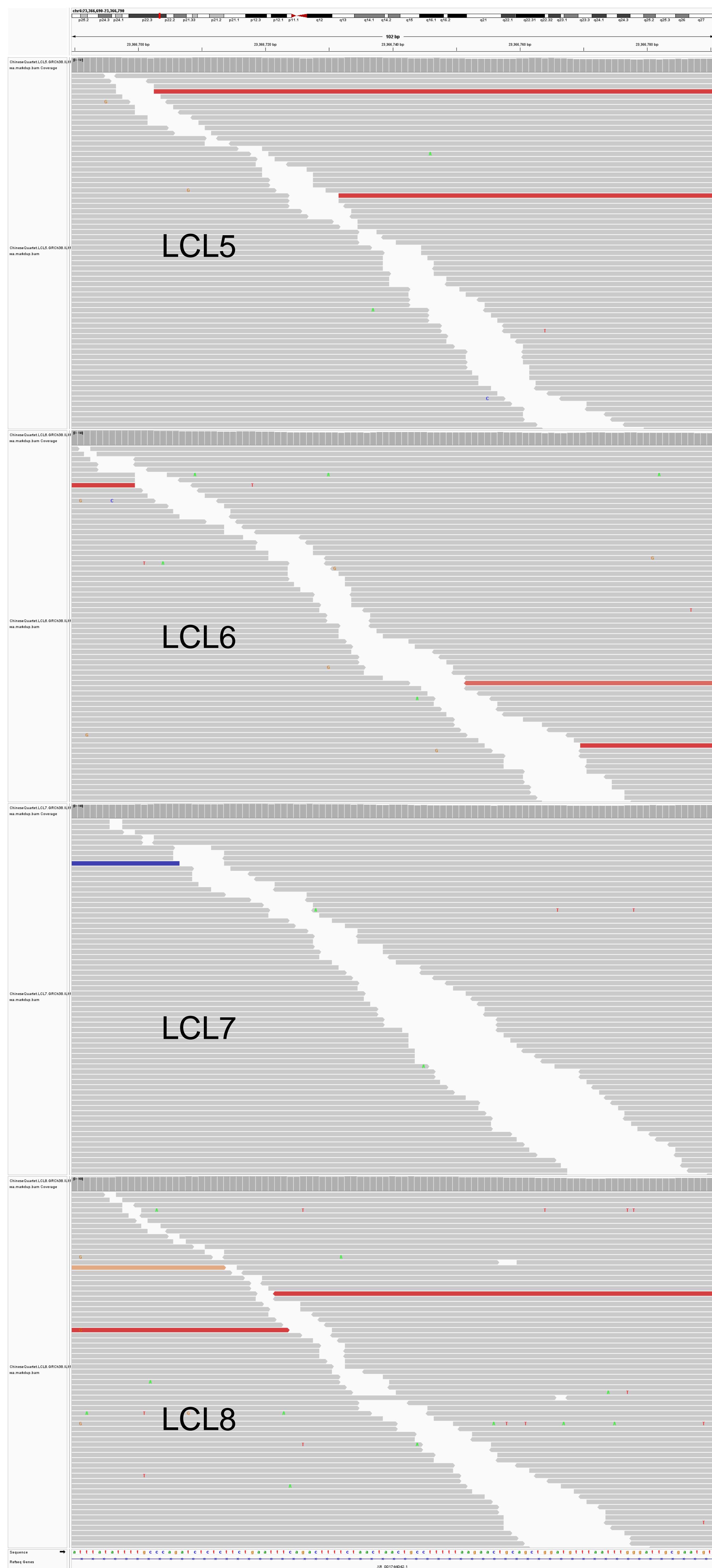


Illumina reads

# POS:chr6:23366740 Report Somatic mutation by HiFi

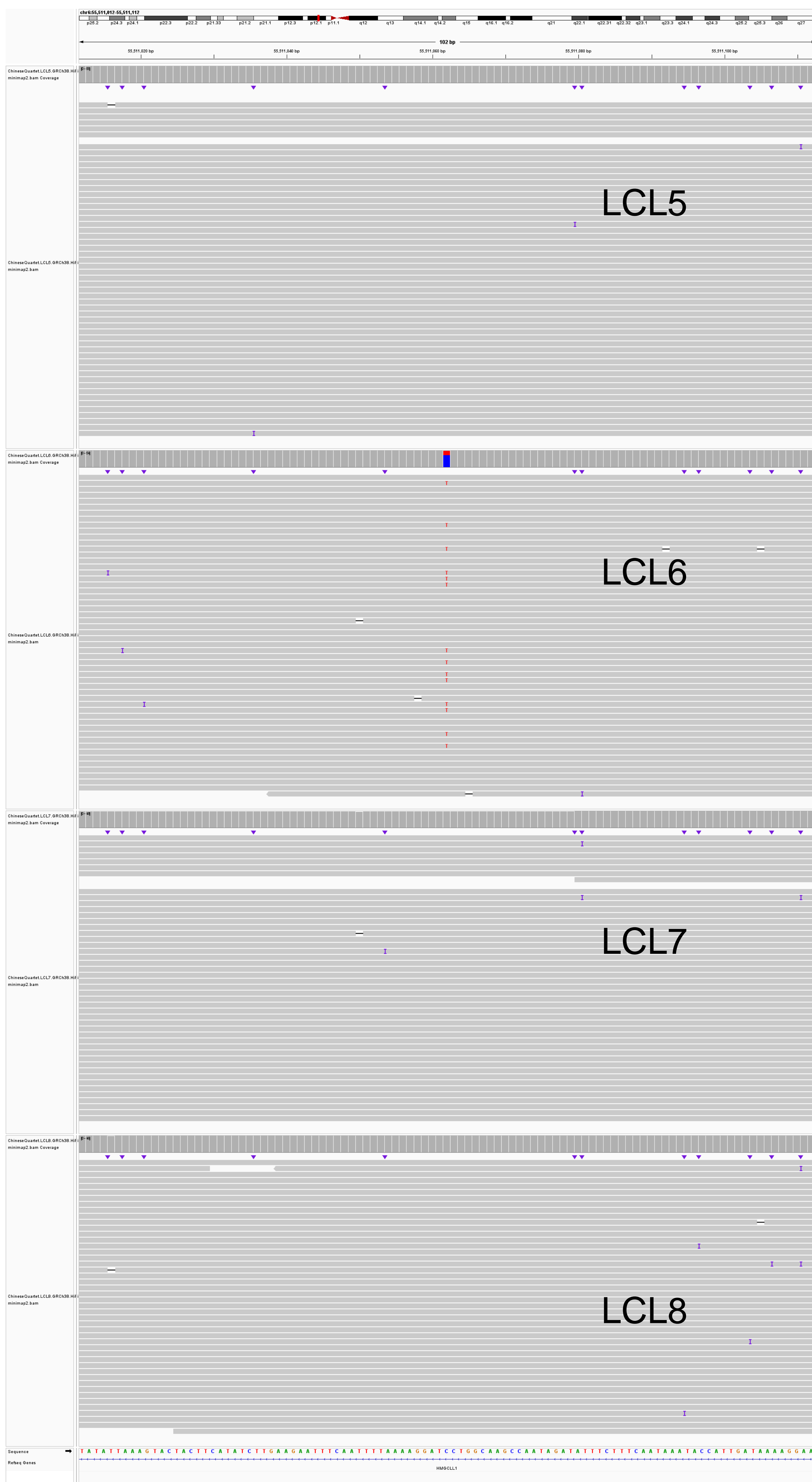


HiFi reads

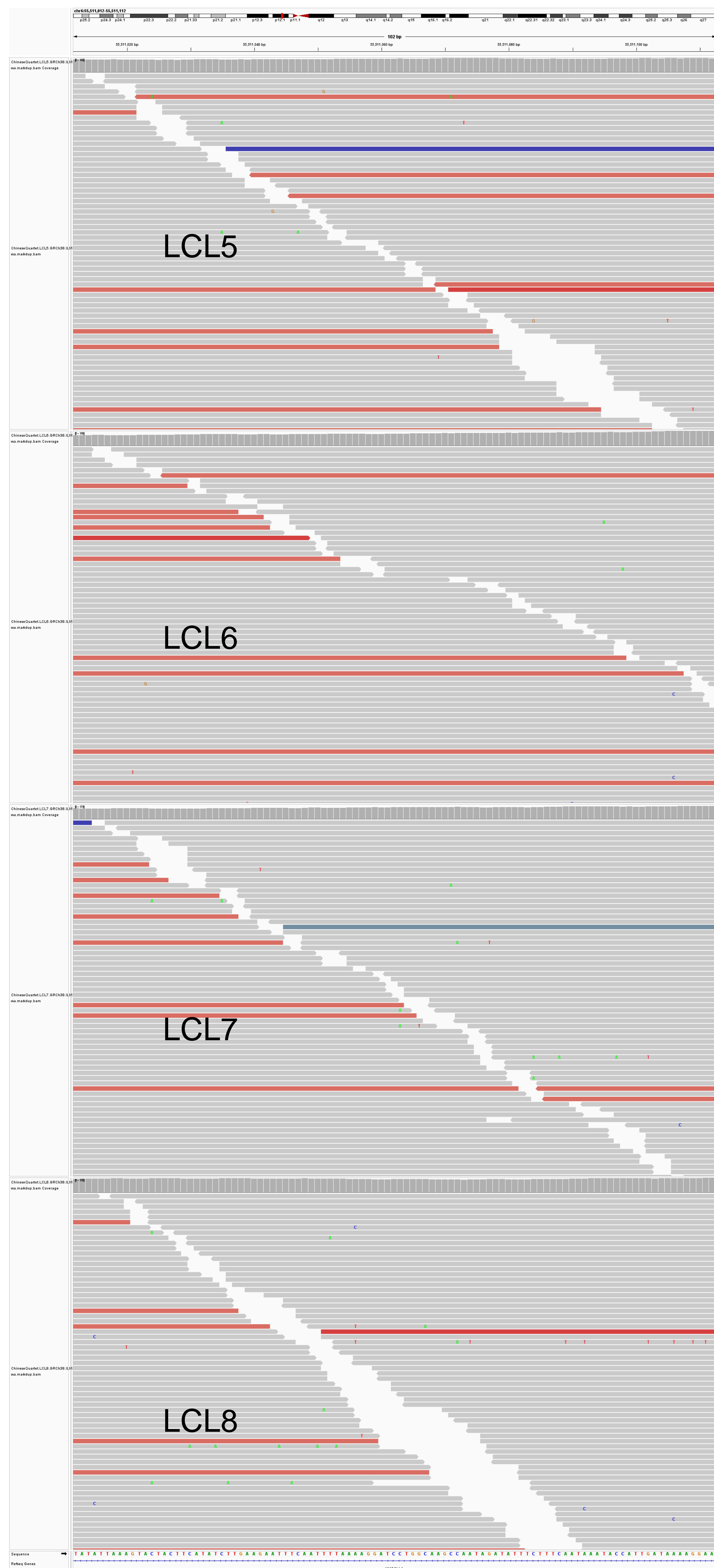


Illumina reads

# POS:chr6:55511062 Report Somatic mutation by HiFi



HiFi reads

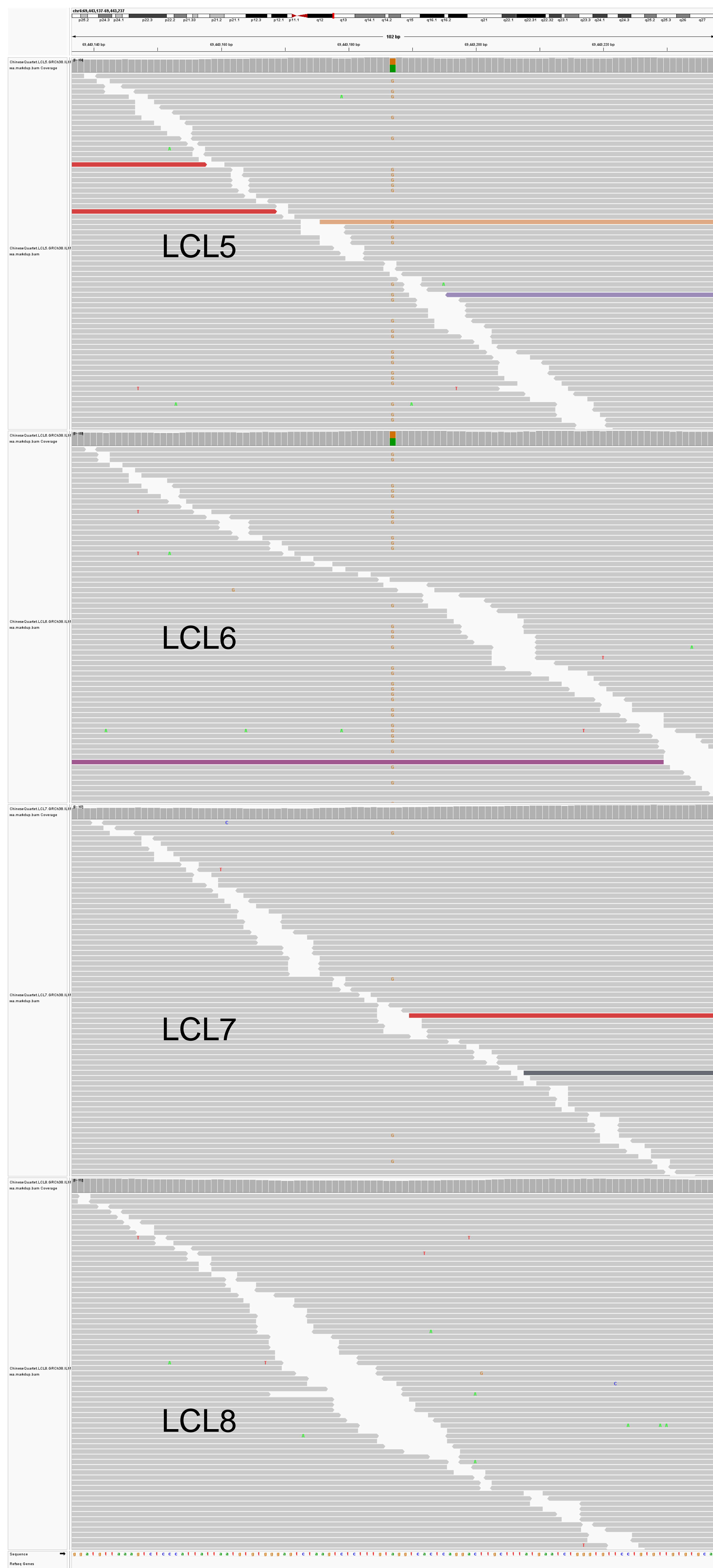


Illumina reads

# POS:chr6:69443187 Report DeNovo mutation by ILM



HiFi reads



Illumina reads



# POS:chr6:69443187 Report DeNovo mutation by HiFi

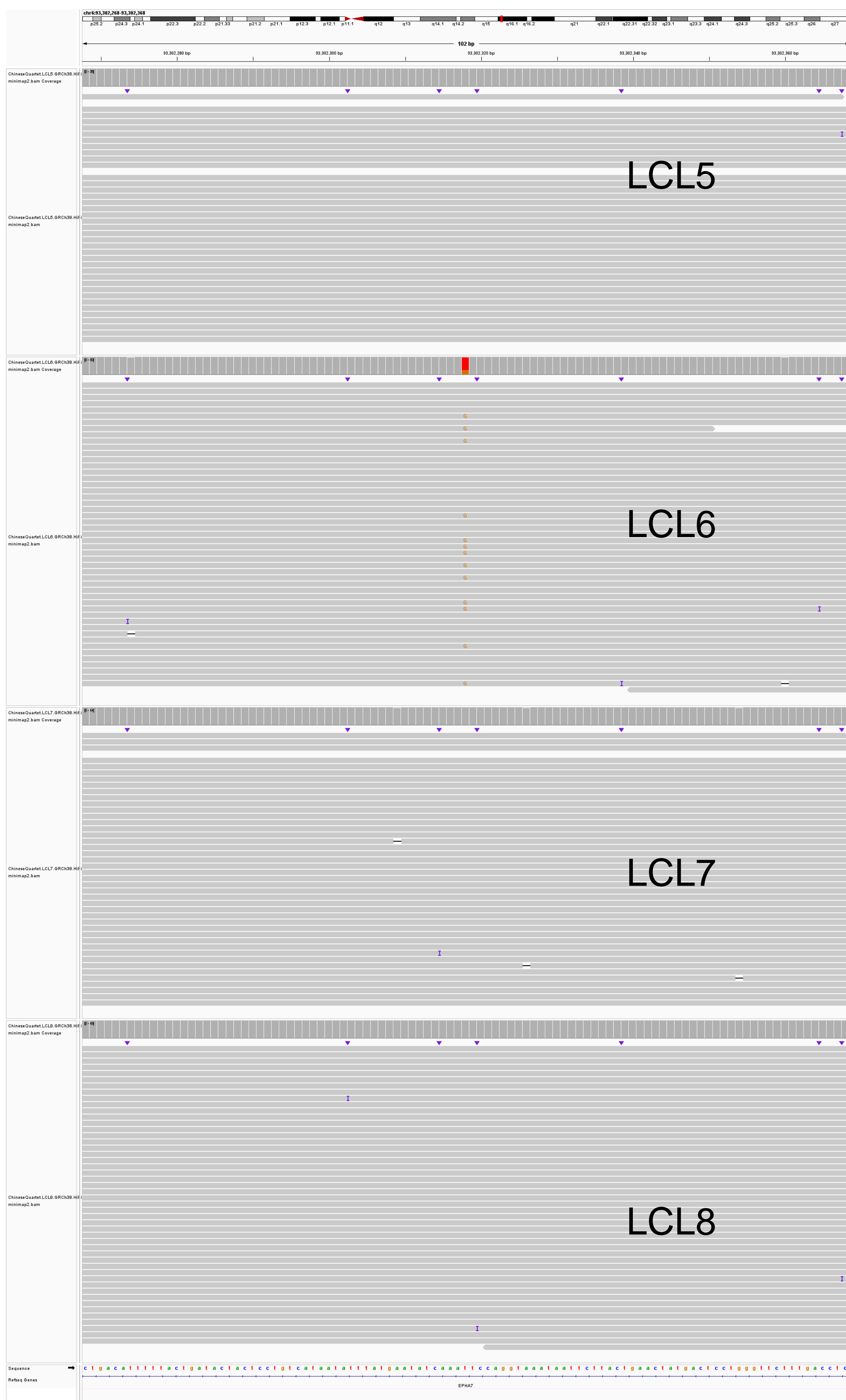


HiFi reads

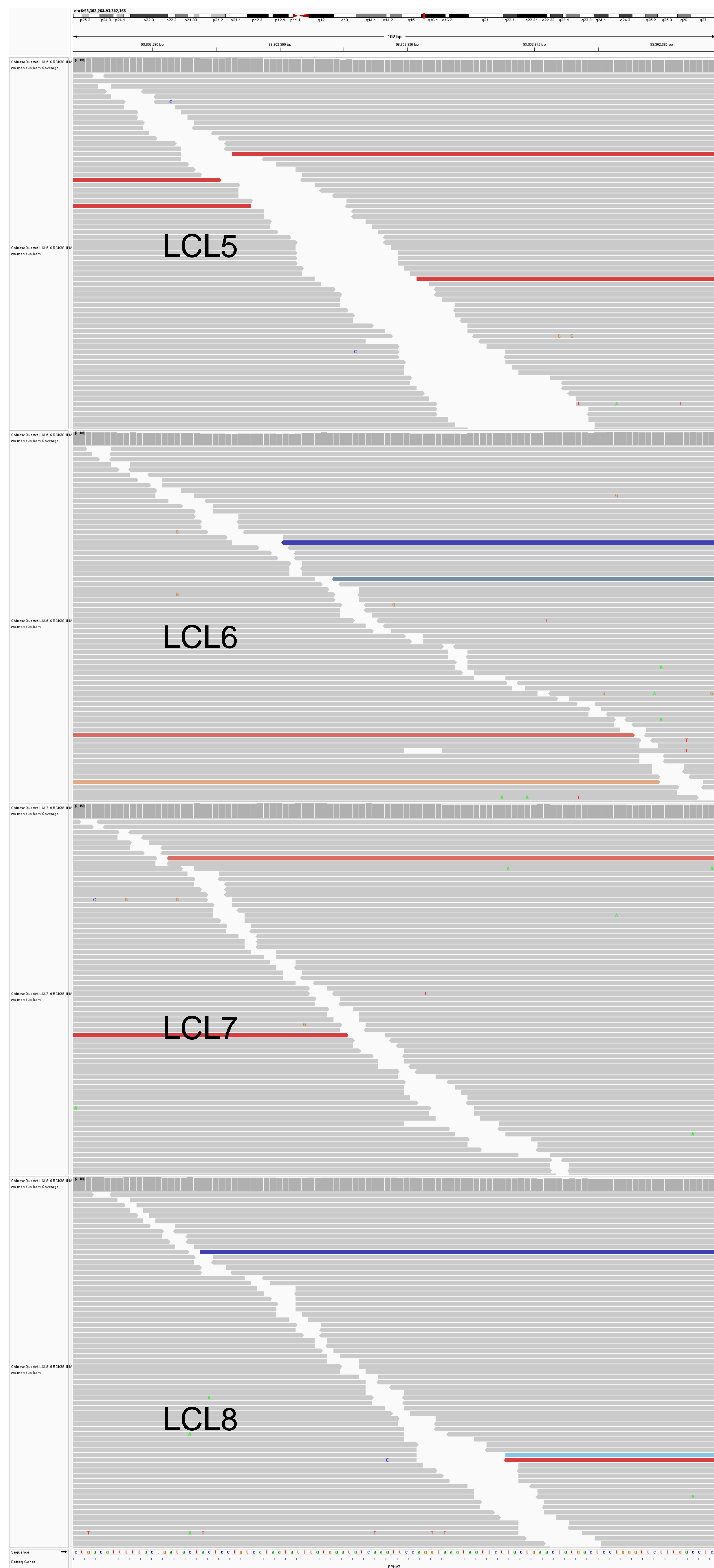


Illumina reads

# POS:chr6:93302318 Report Somatic mutation by HiFi

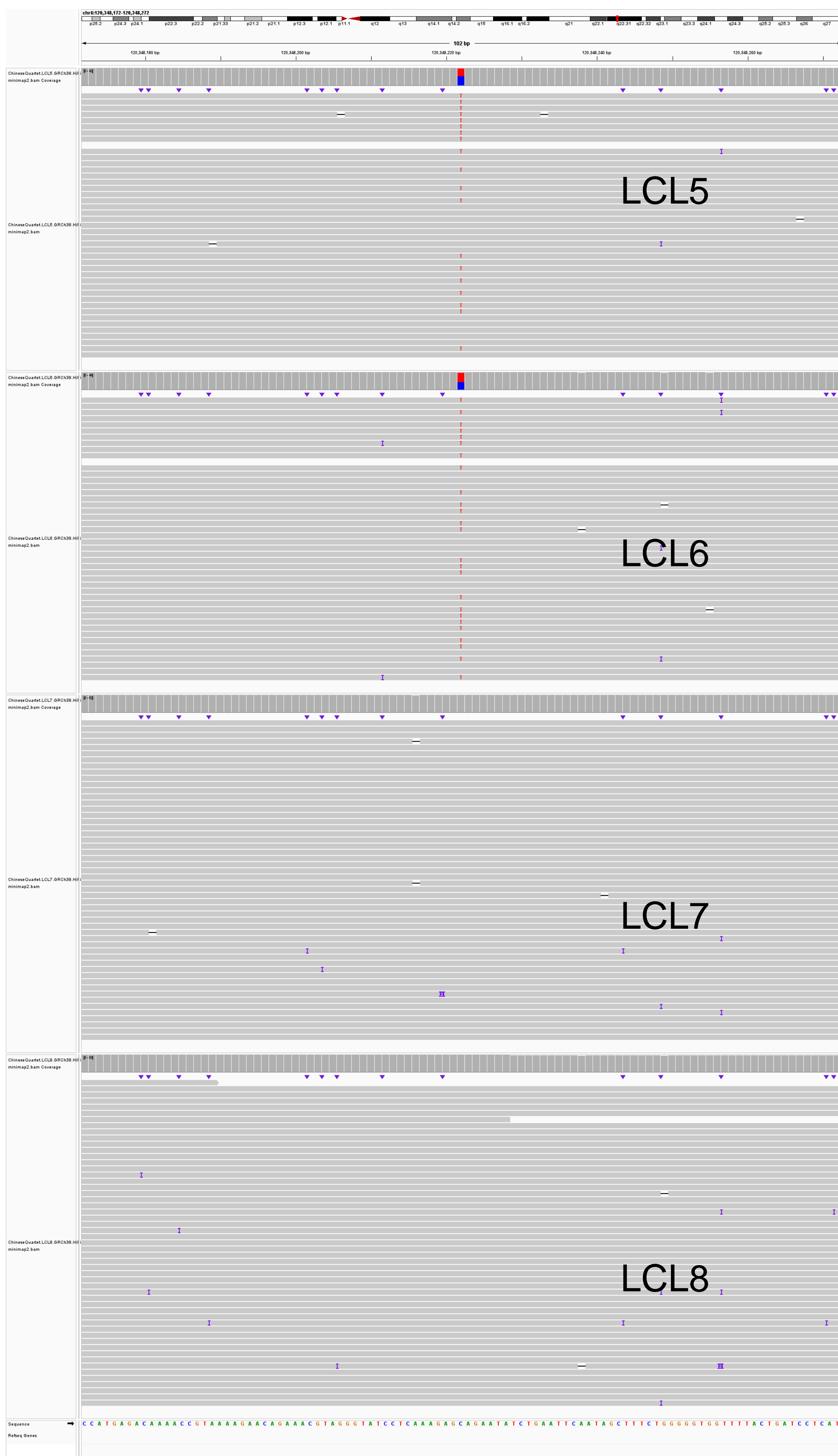


HiFi reads

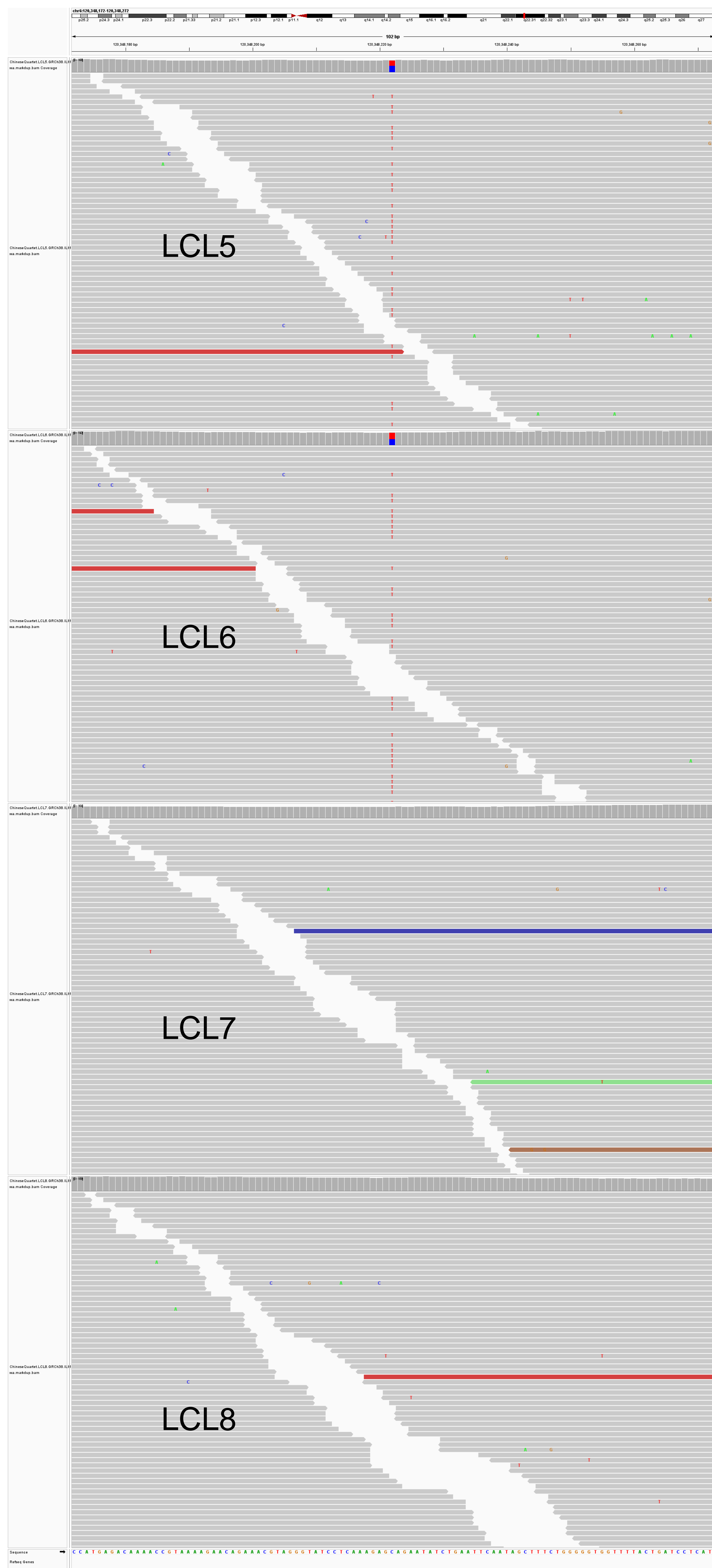


Illumina reads

# POS:chr6:120348222 Report DeNovo mutation by ILM

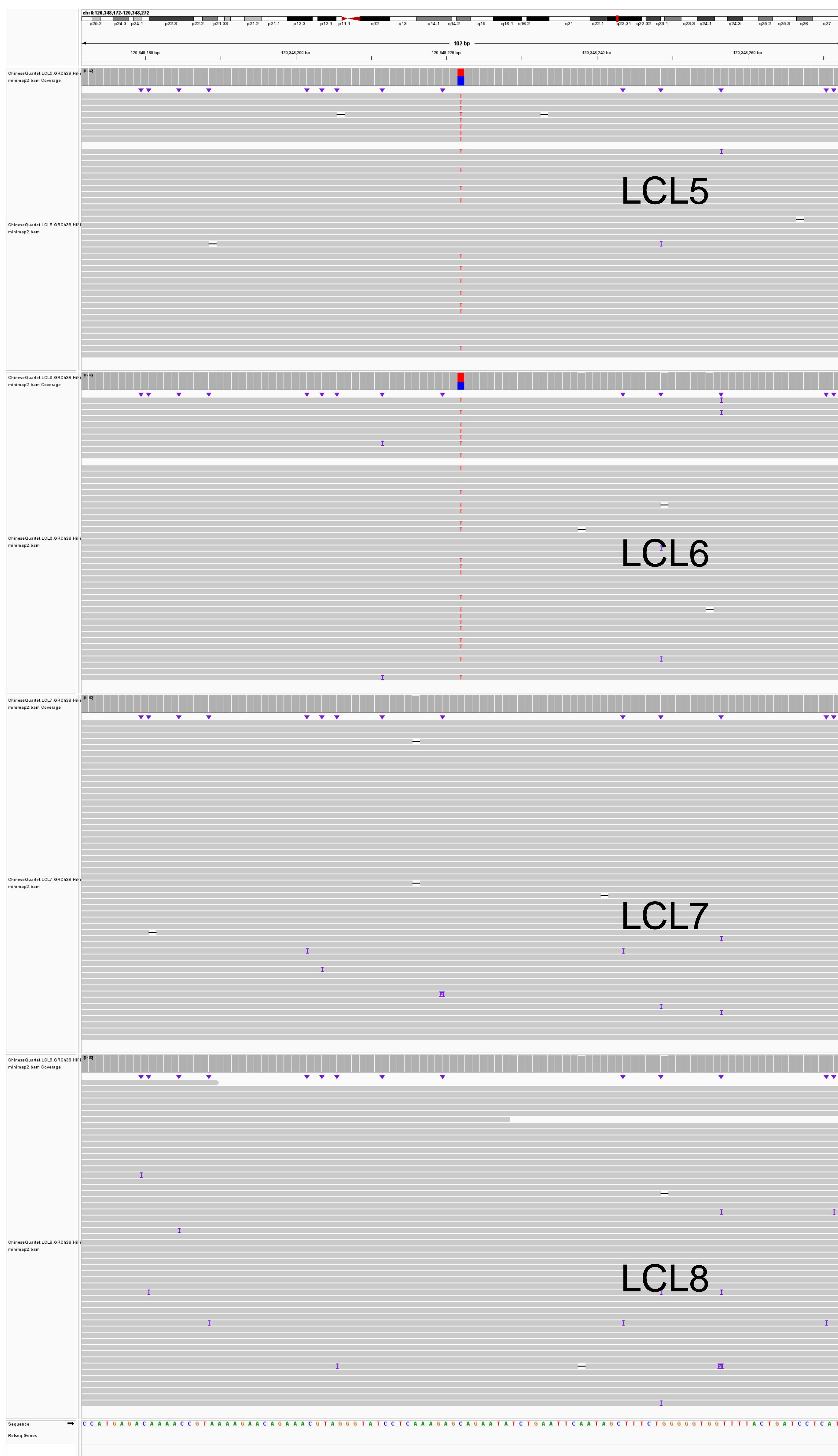


HiFi reads

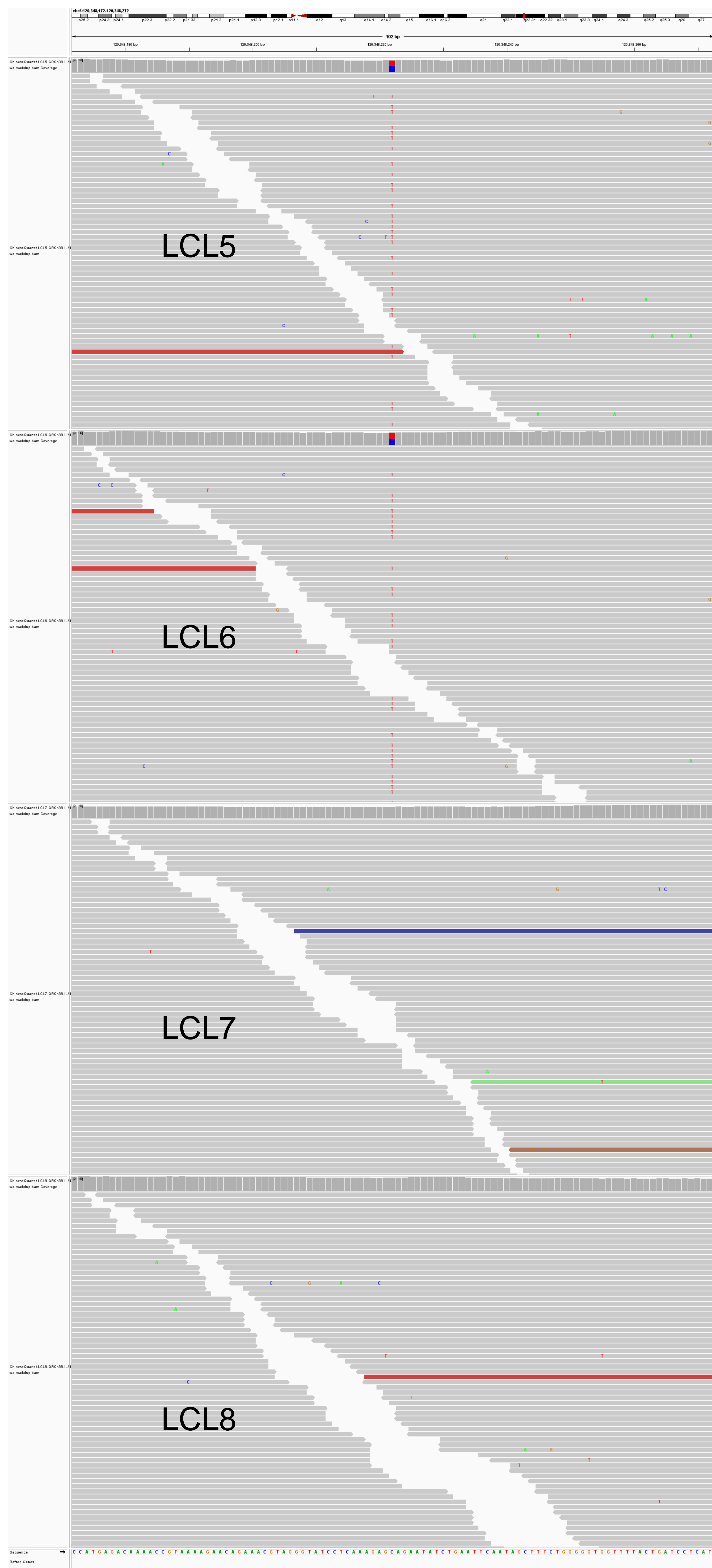


Illumina reads

# POS:chr6:120348222 Report DeNovo mutation by HiFi



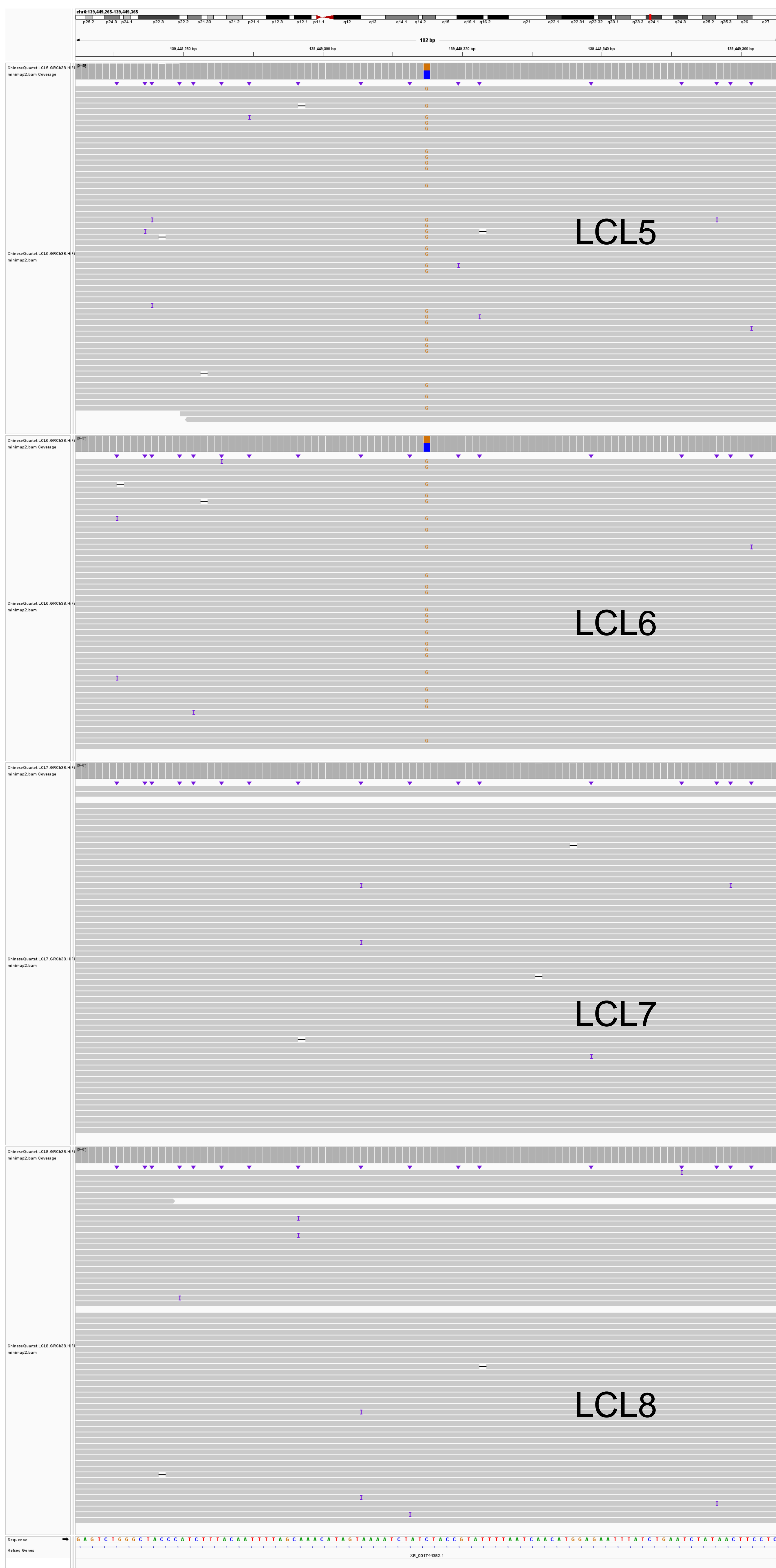
HiFi reads



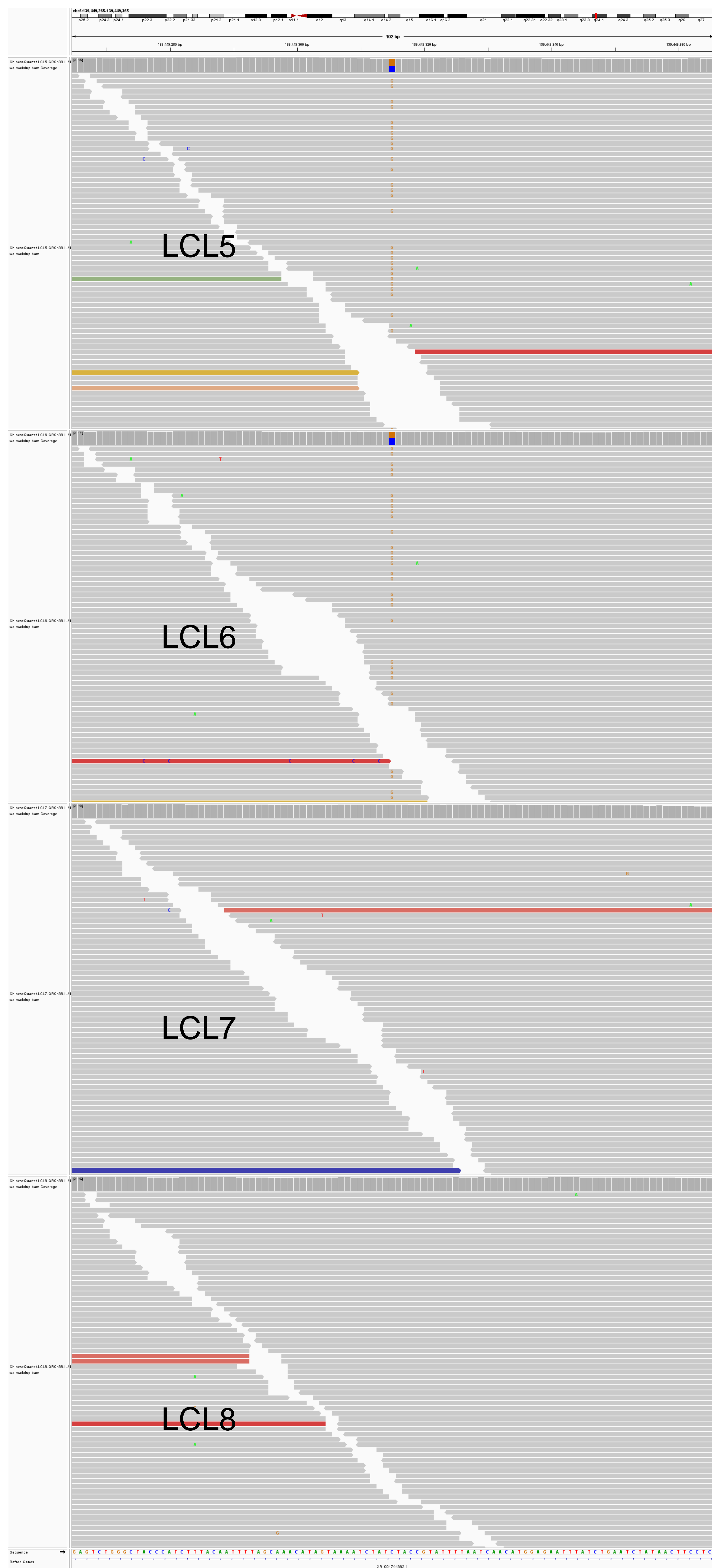
Illumina reads



# POS:chr6:139449315 Report DeNovo mutation by ILM

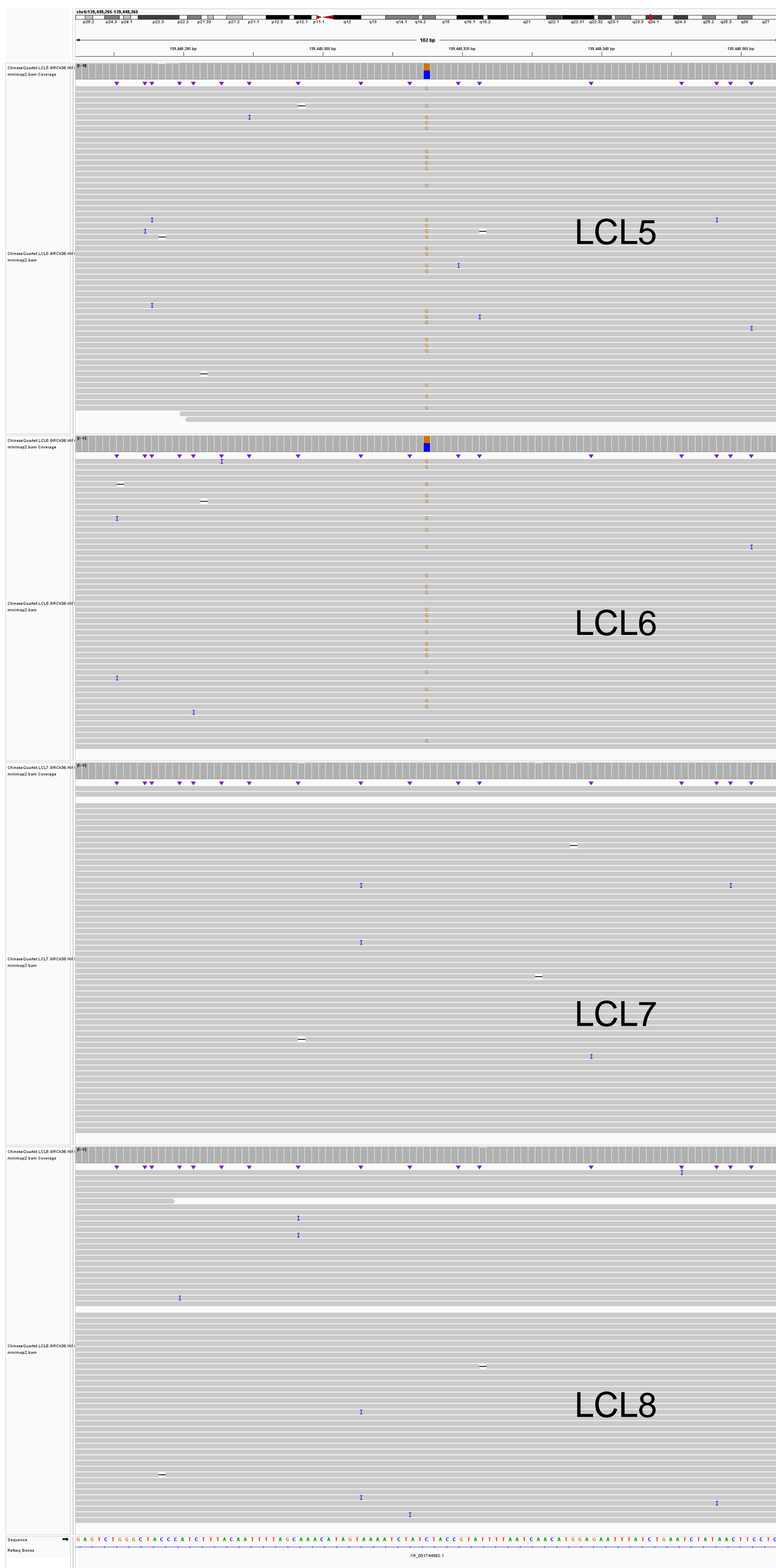


HiFi reads

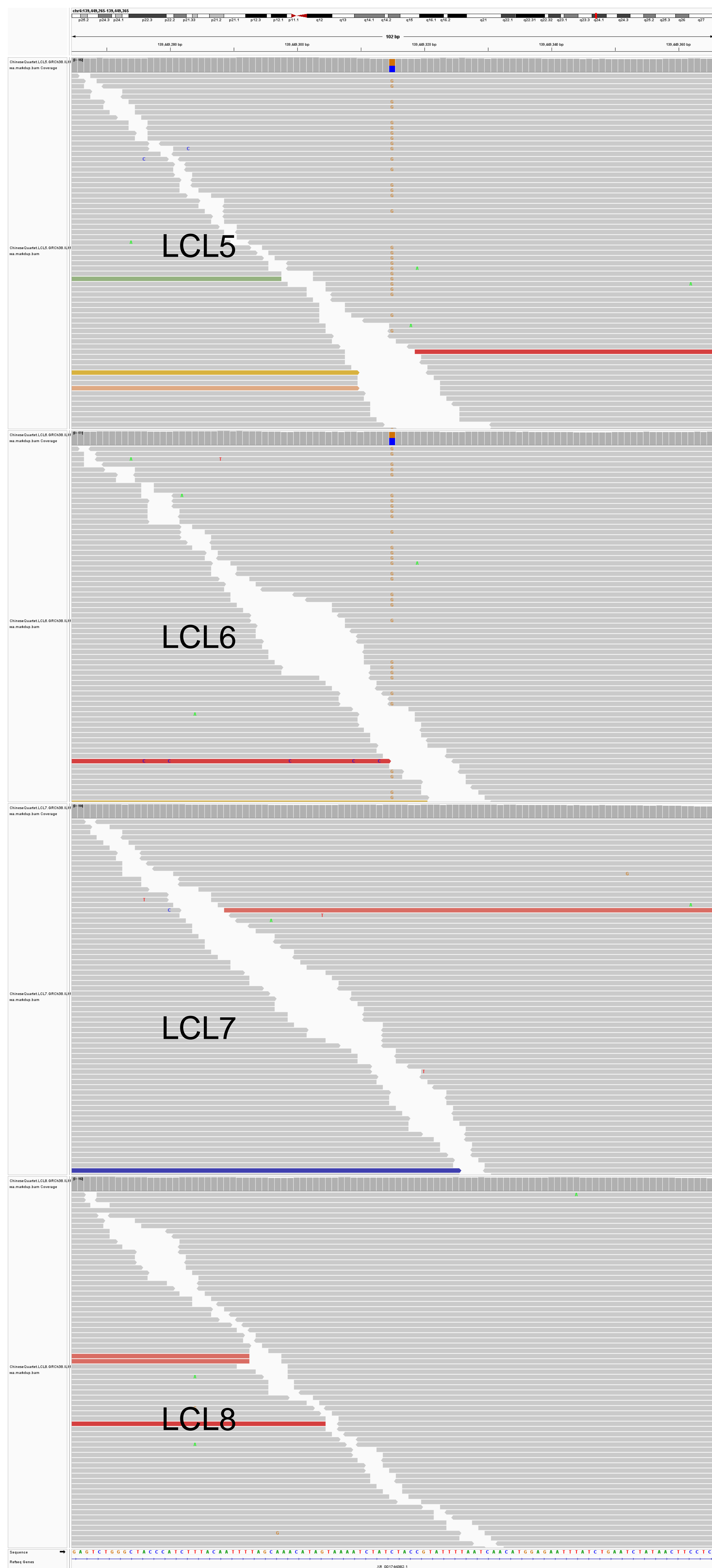


Illumina reads

# POS:chr6:139449315 Report DeNovo mutation by HiFi

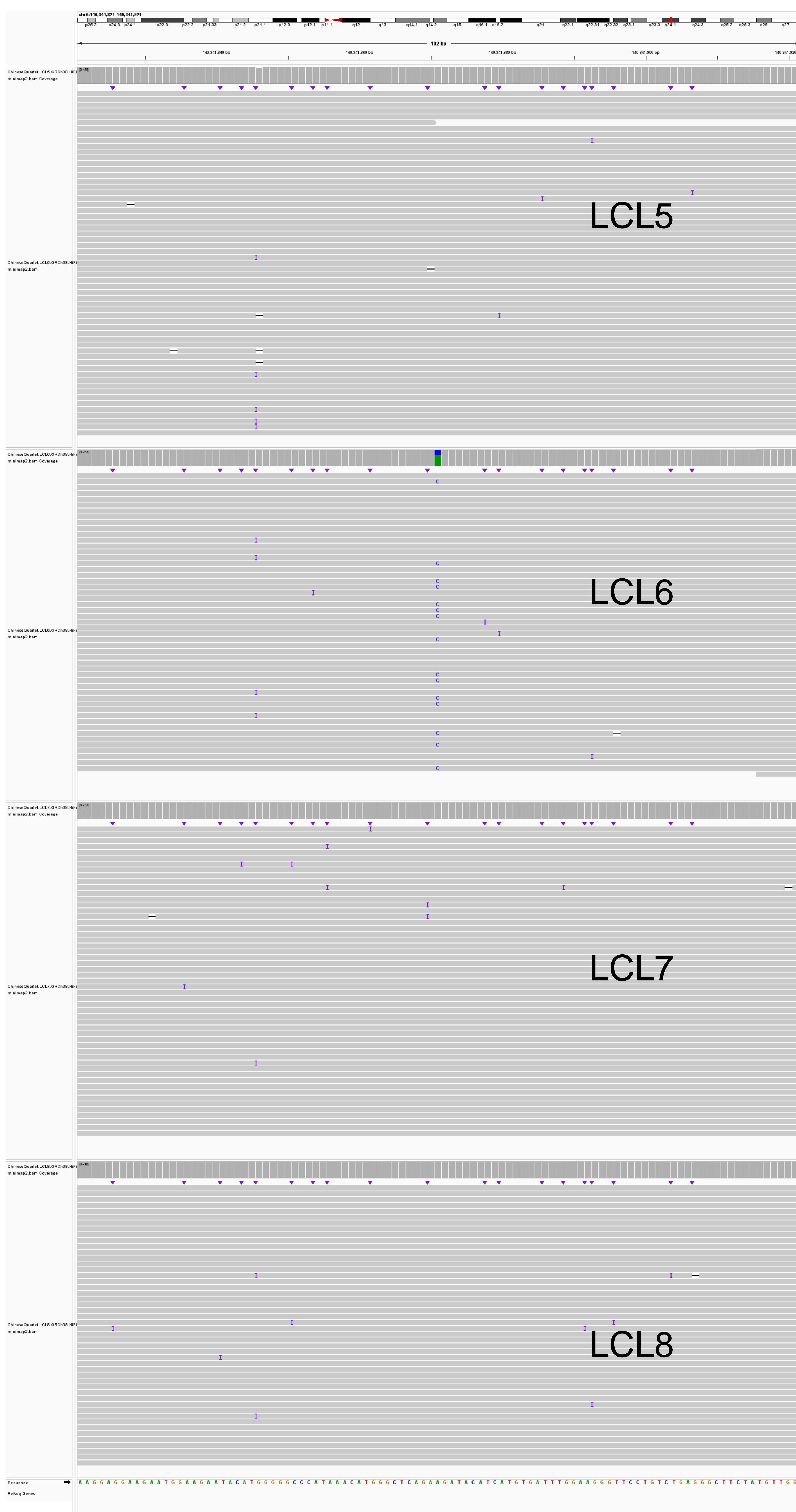


HiFi reads

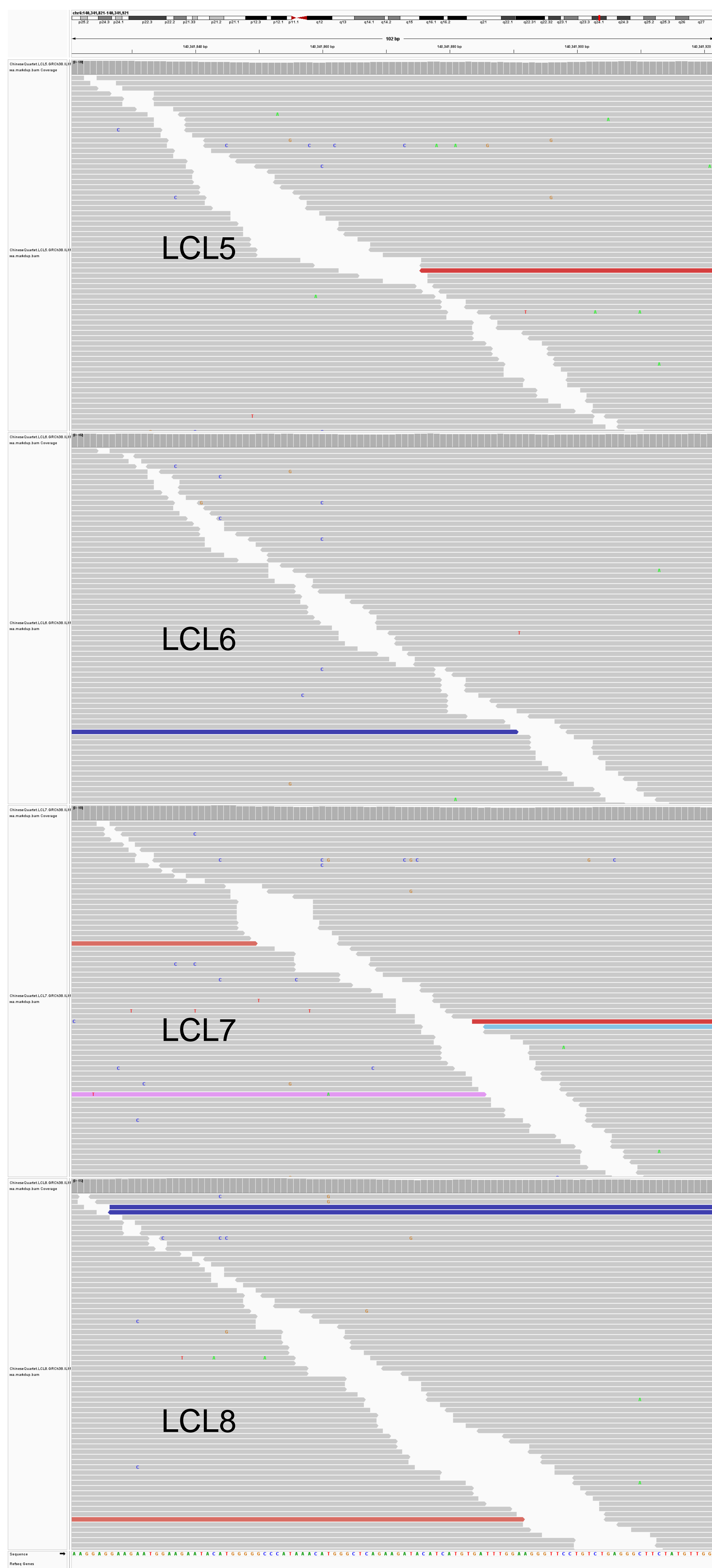


Illumina reads

# POS:chr6:140341871 Report Somatic mutation by HiFi



HiFi reads

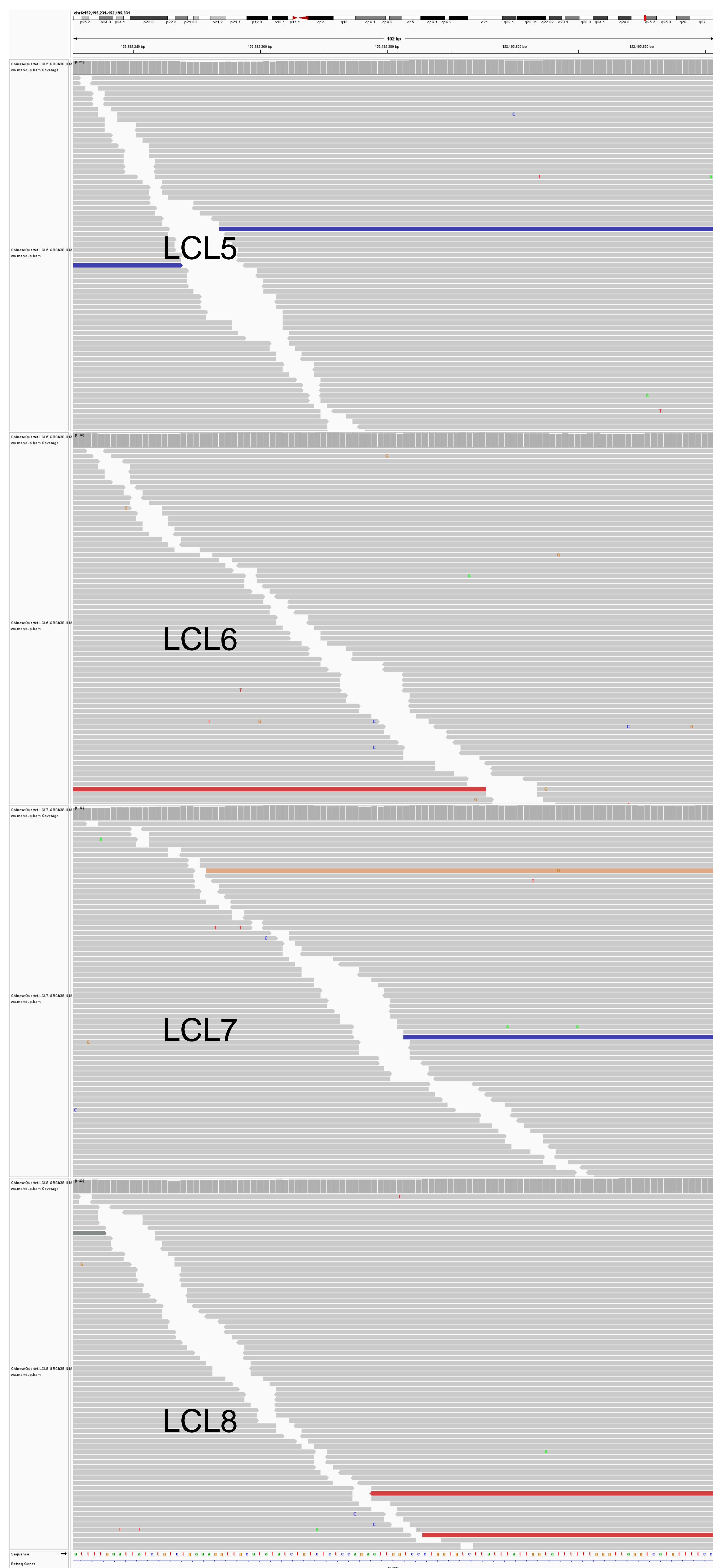


Illumina reads

# POS:chr6:152195281 Report Somatic mutation by HiFi



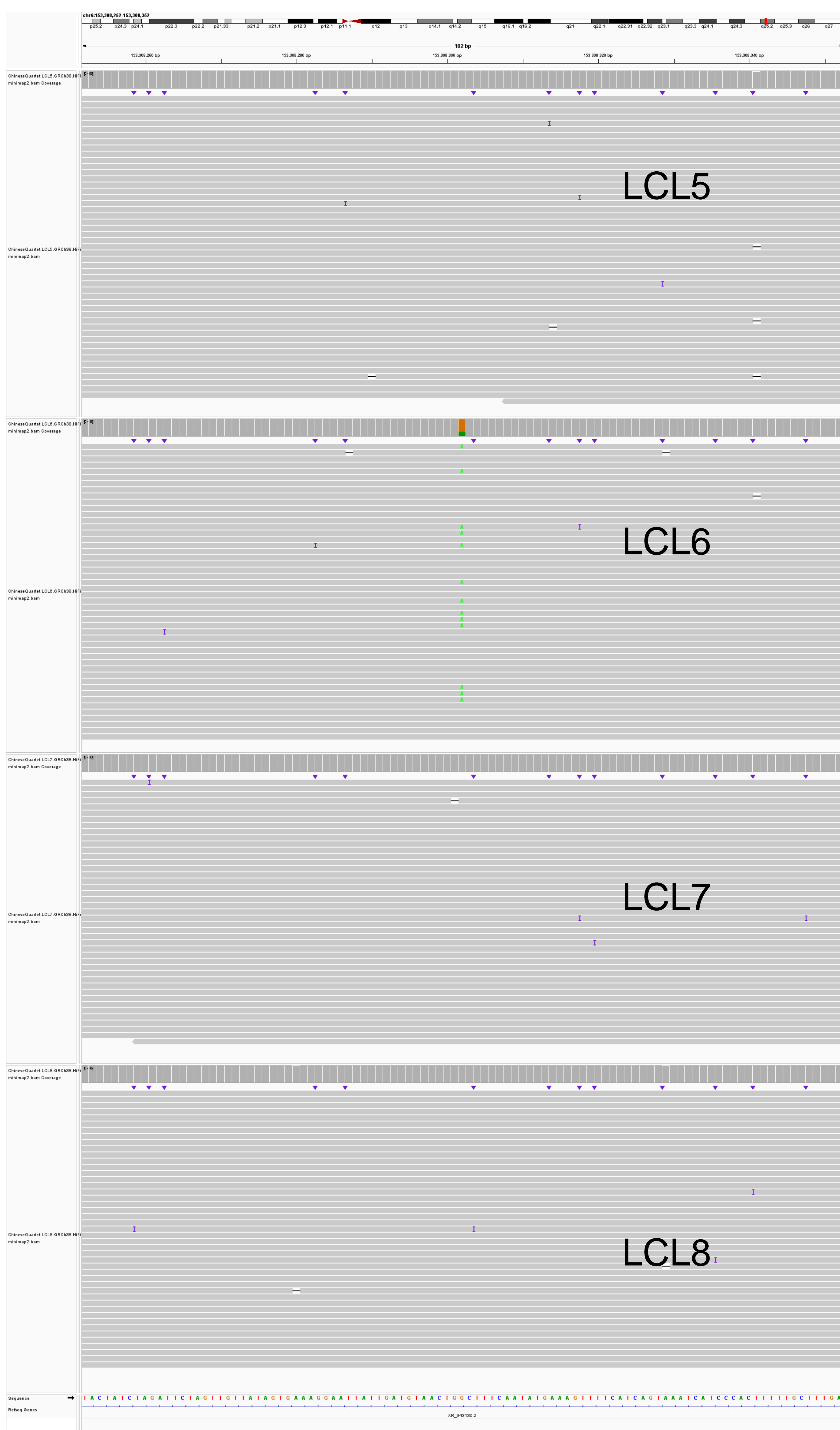
HiFi reads



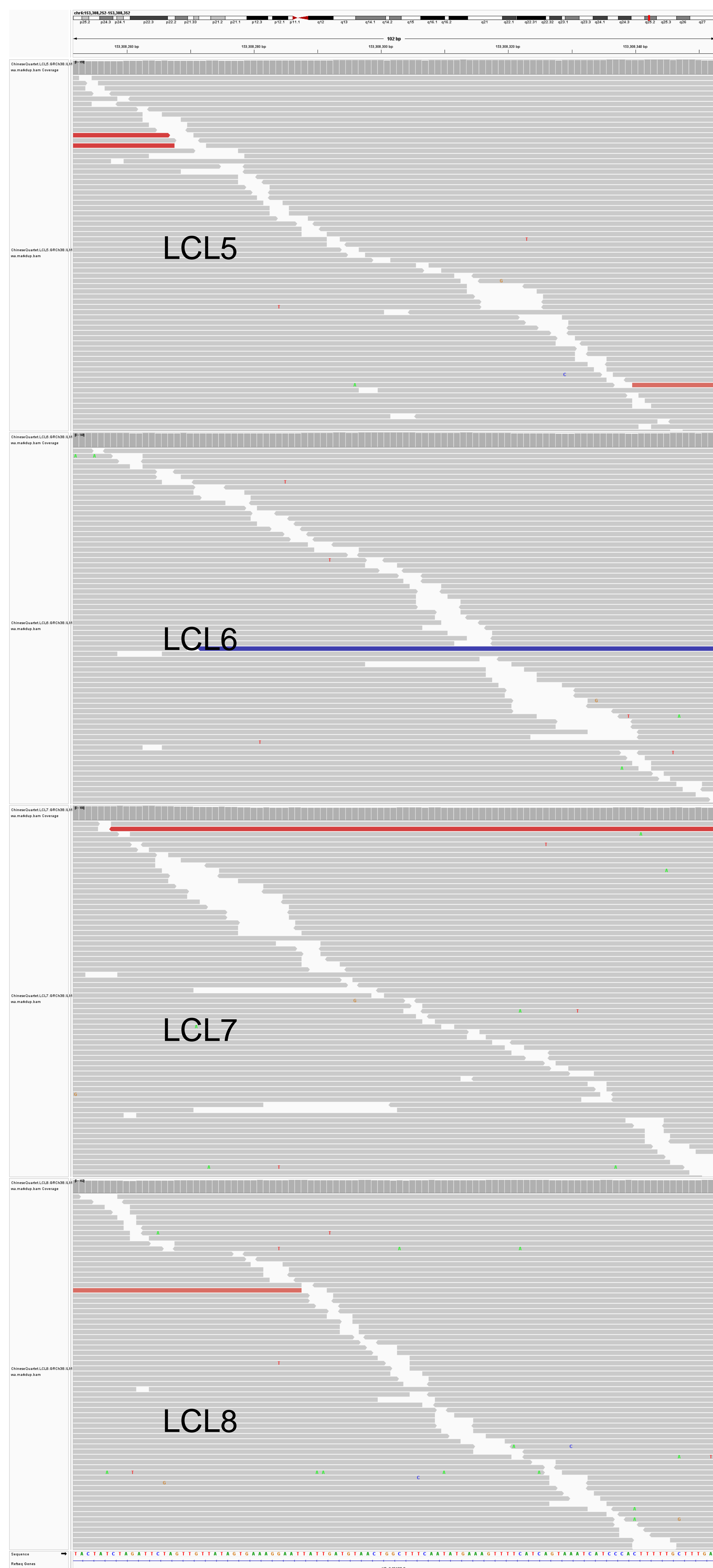
Illumina reads



# POS:chr6:153308302 Report Somatic mutation by HiFi

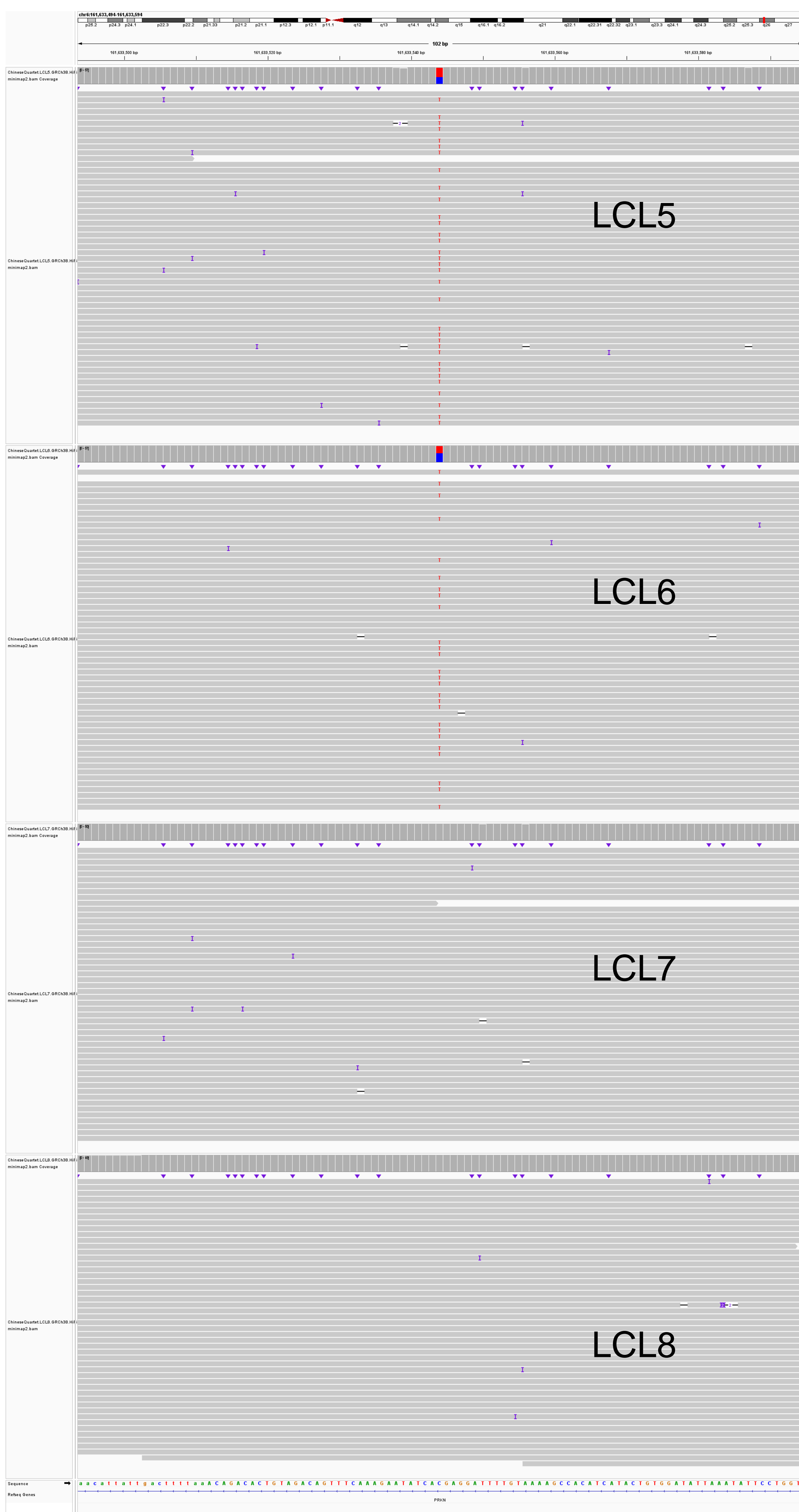


HiFi reads

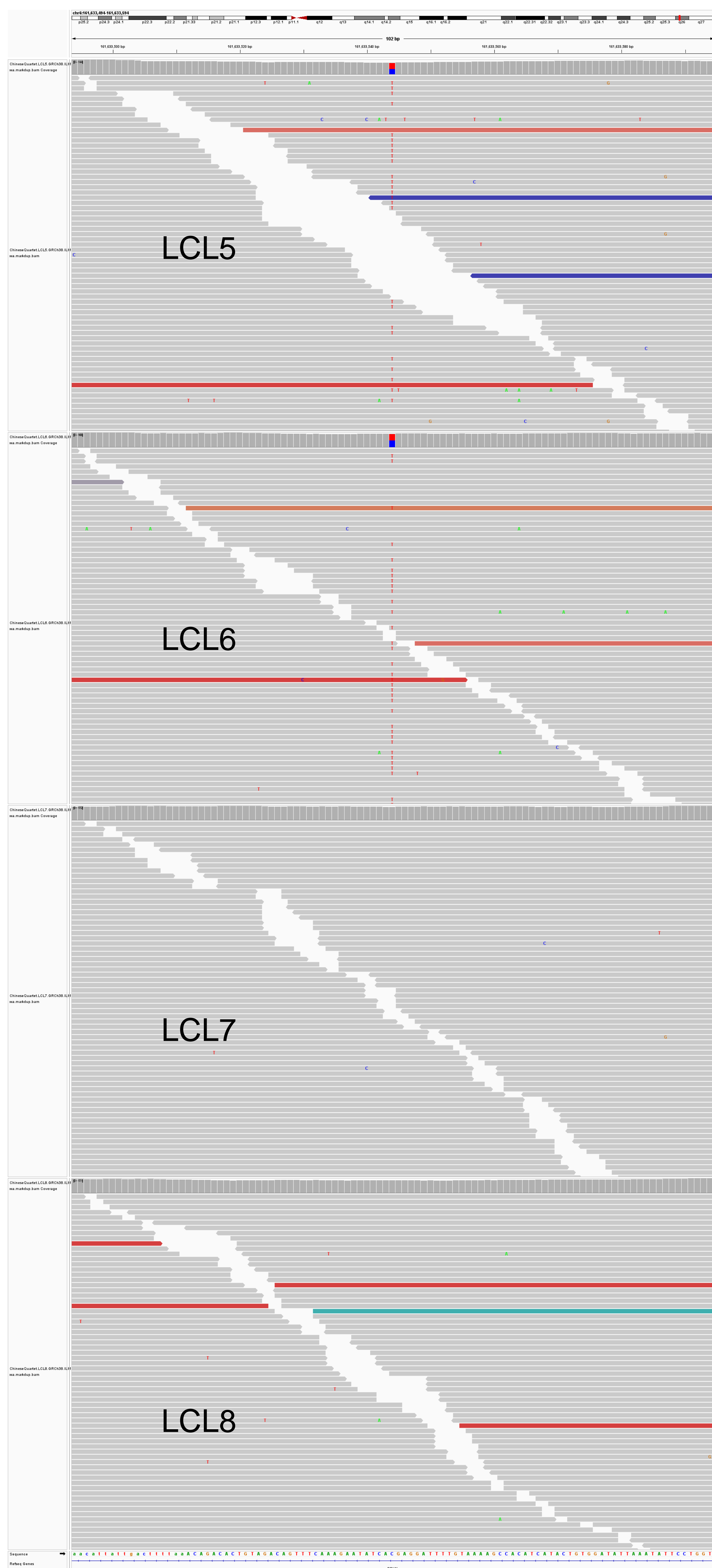


Illumina reads

# POS:chr6:161633544 Report DeNovo mutation by ILM

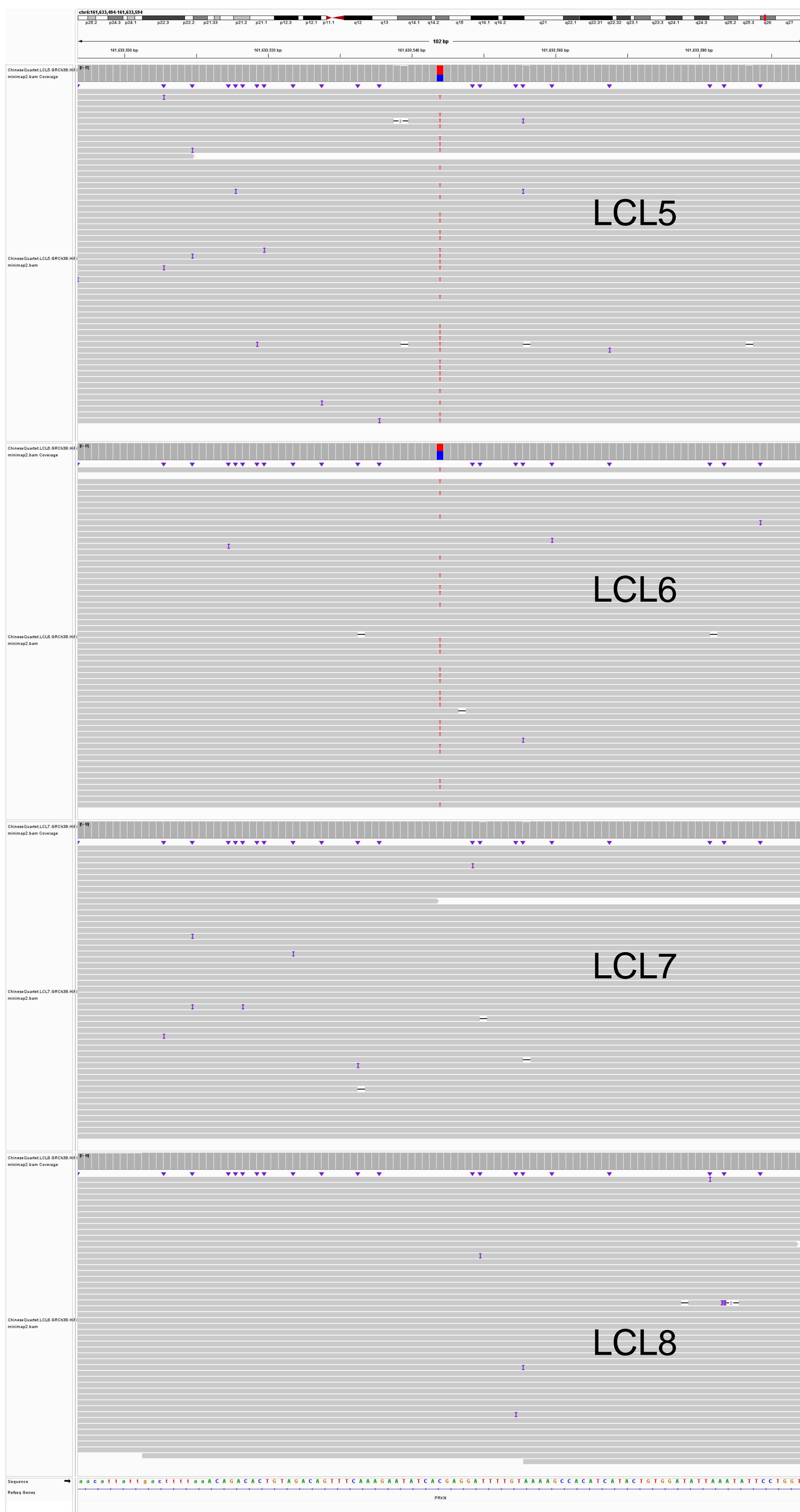


HiFi reads

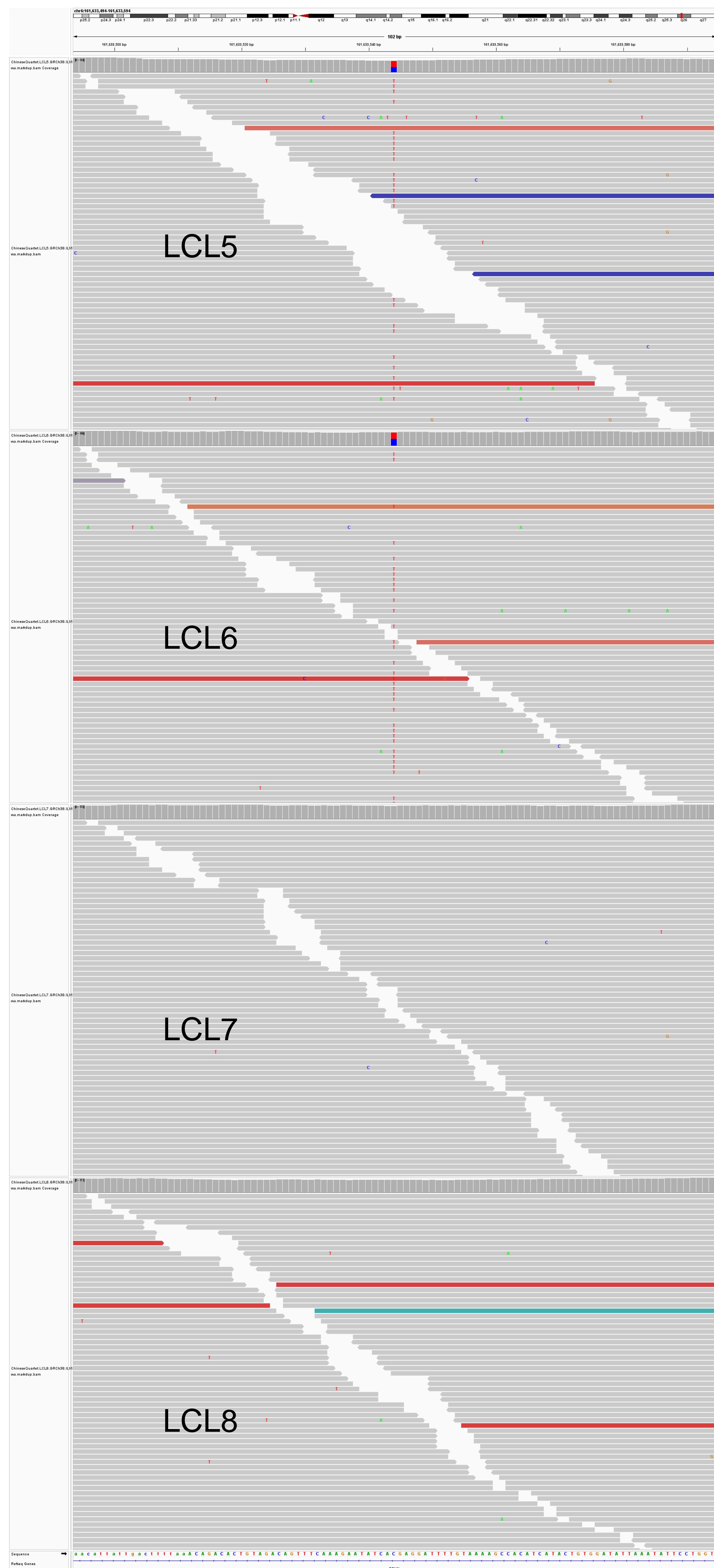


Illumina reads

# POS:chr6:161633544 Report DeNovo mutation by HiFi



HiFi reads

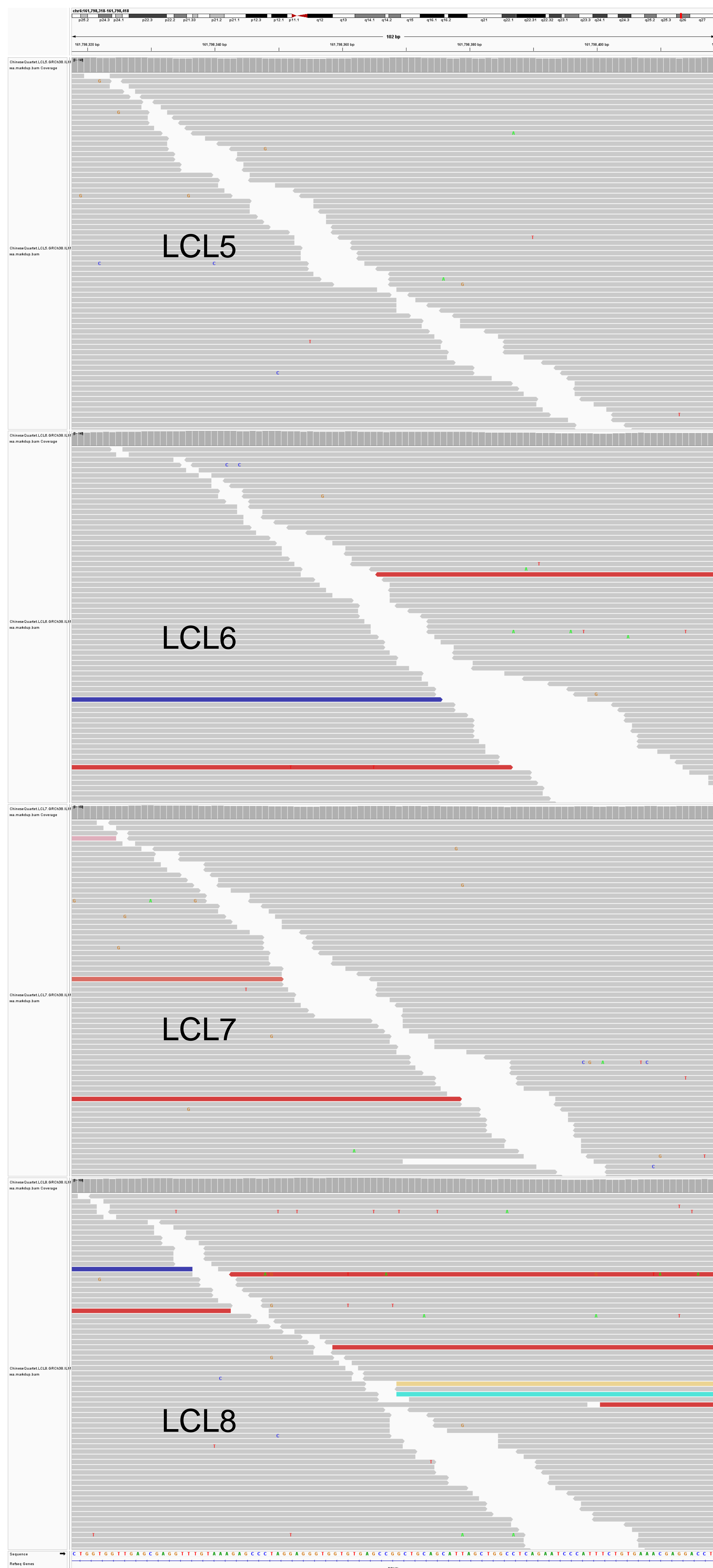


Illumina reads

# POS:chr6:161798368 Report Somatic mutation by HiFi



HiFi reads

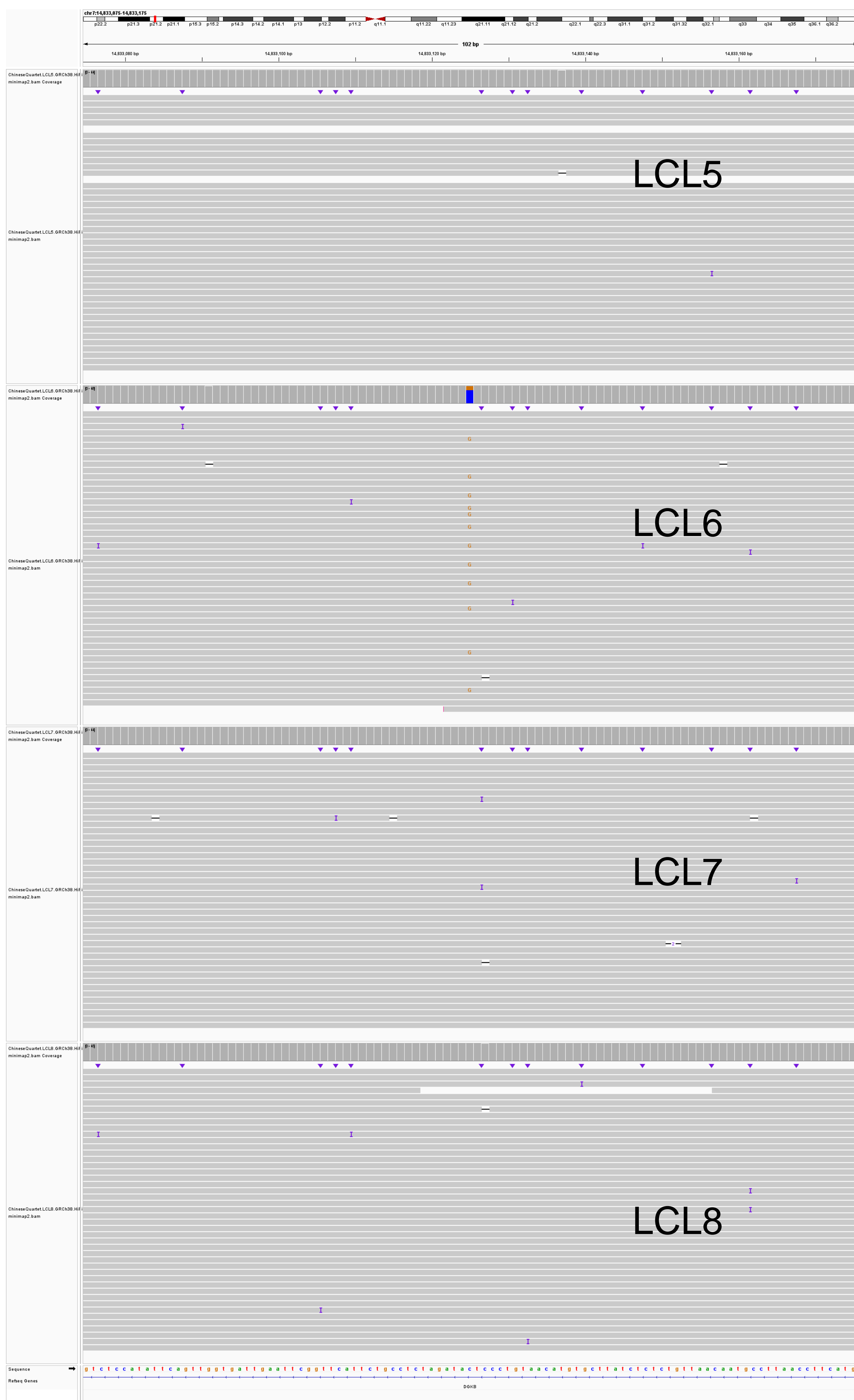


Illumina reads

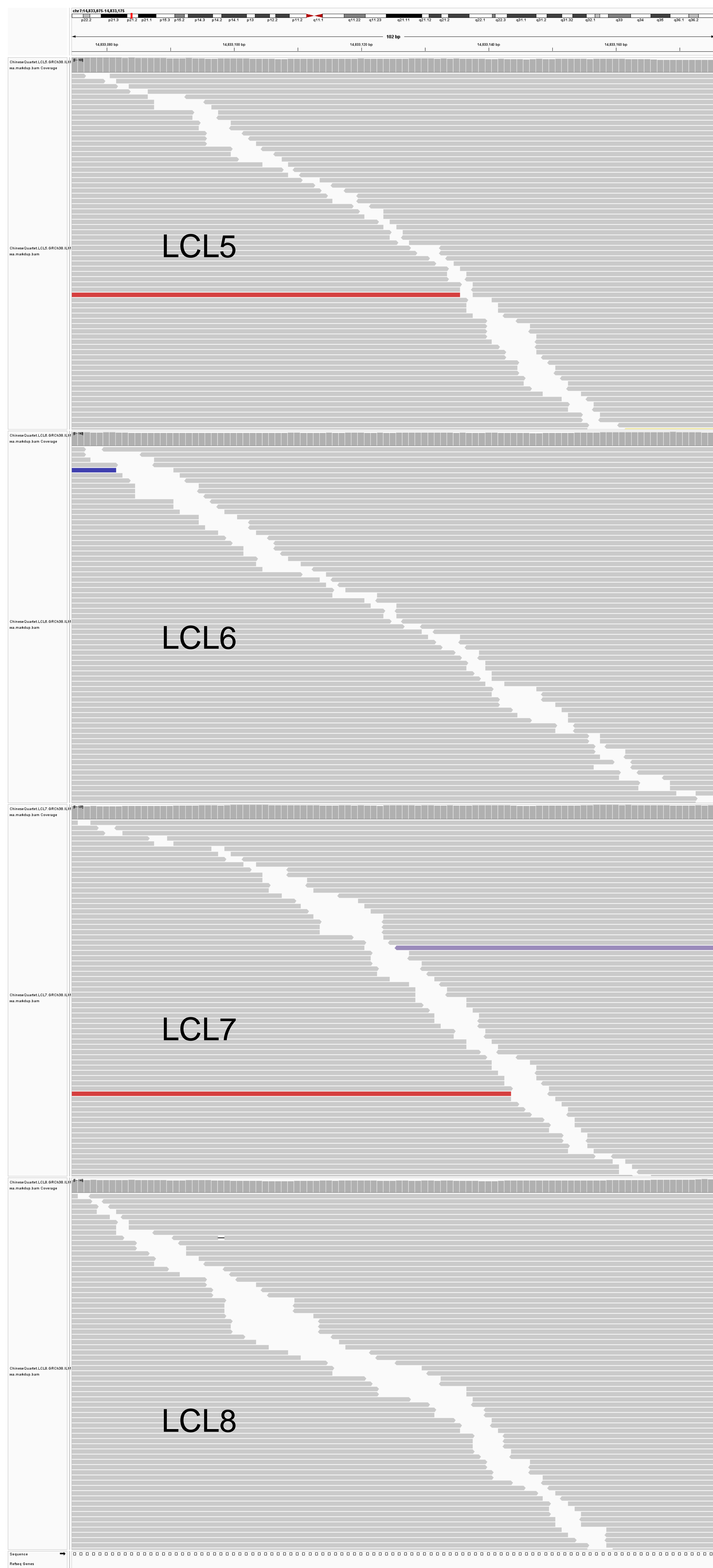




# POS:chr7:14833125 Report Somatic mutation by HiFi

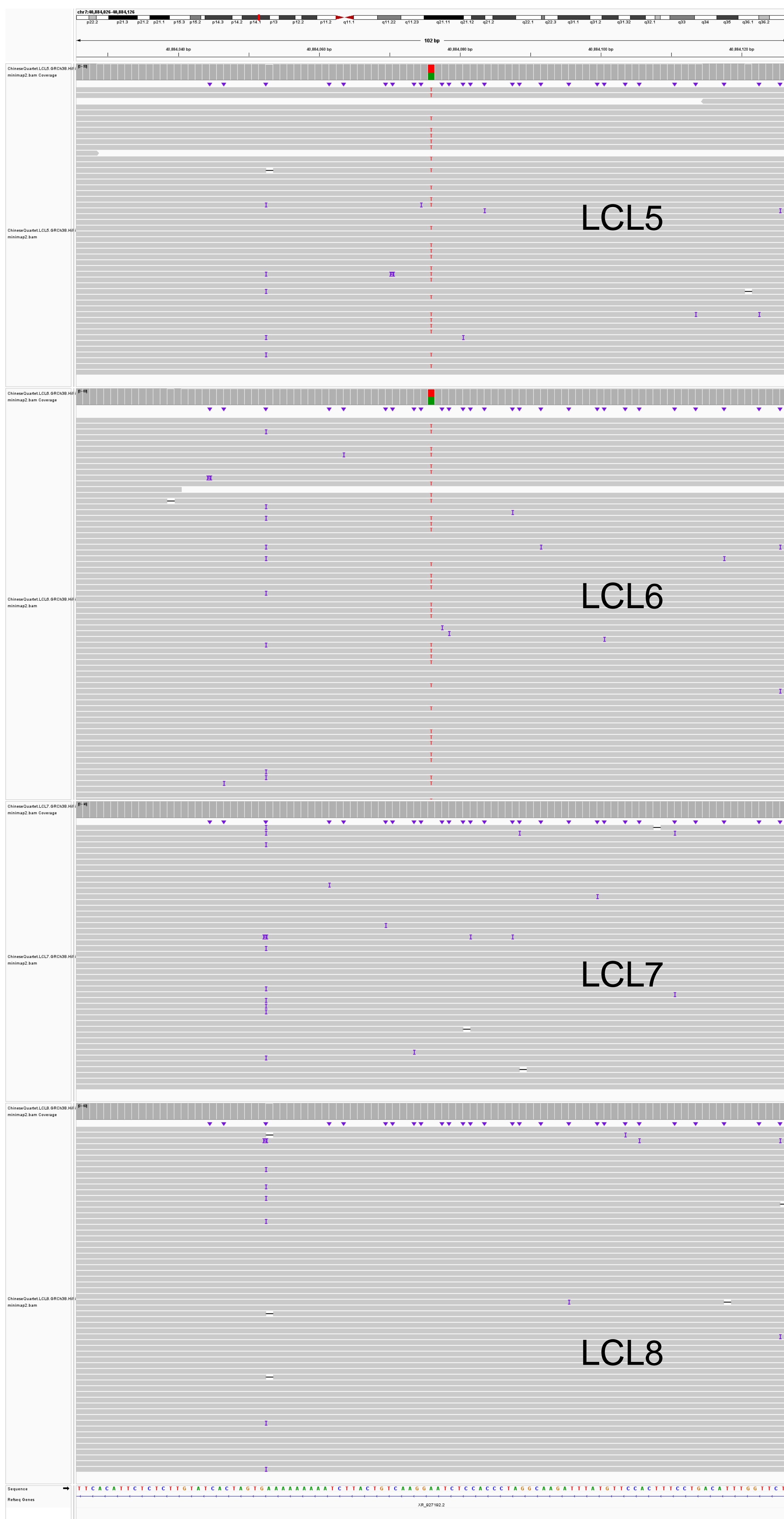


HiFi reads

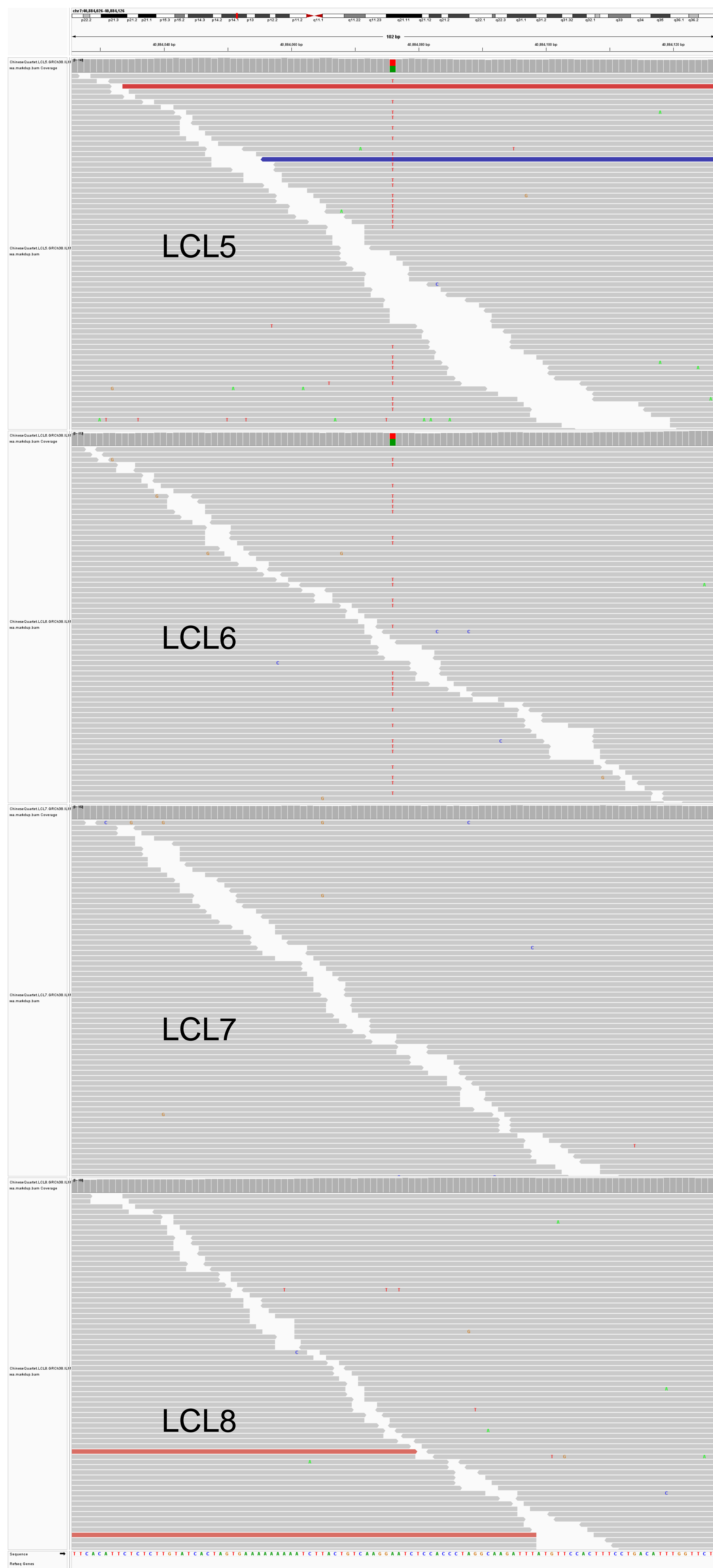


Illumina reads

# POS:chr7:40884076 Report DeNovo mutation by ILM

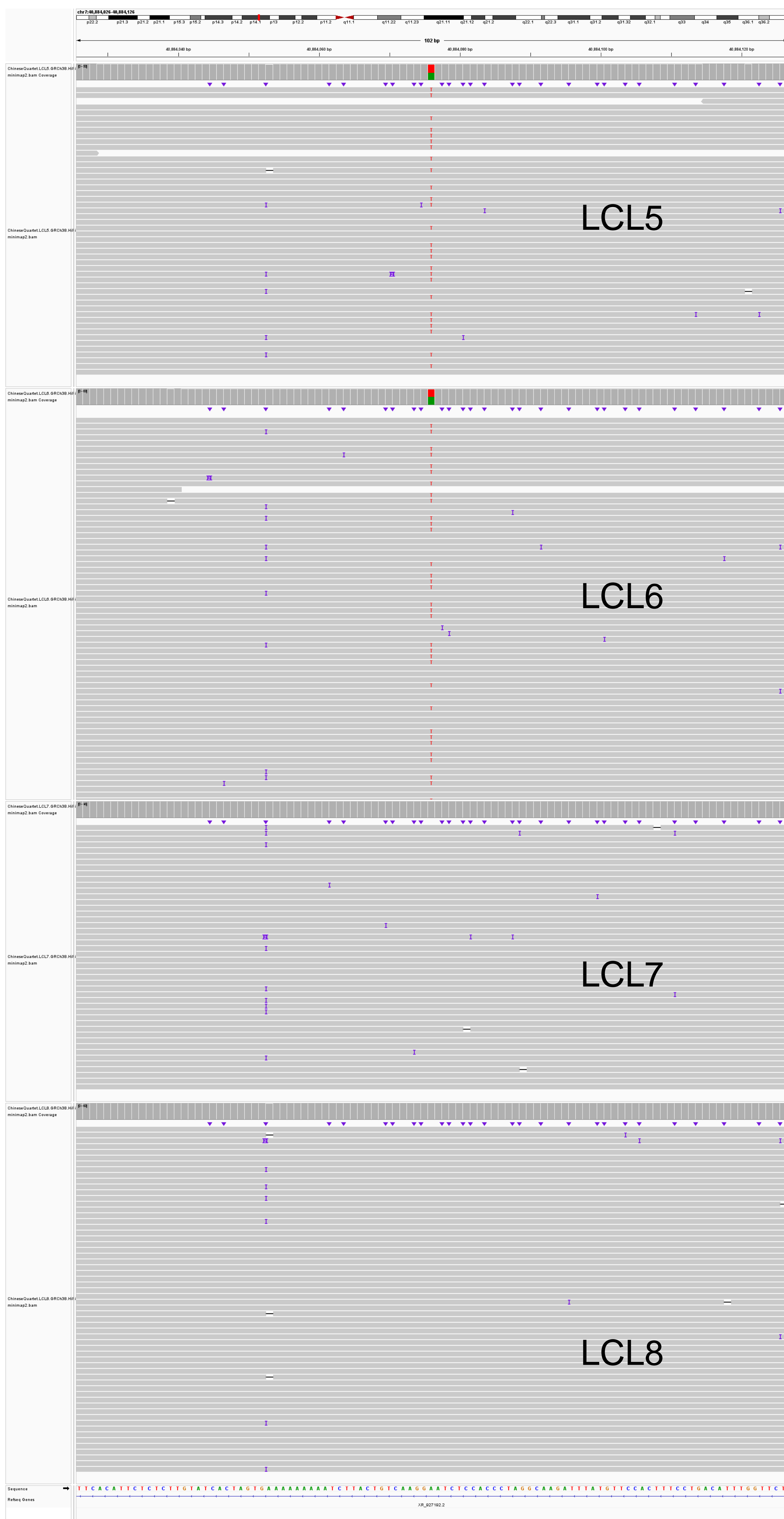


HiFi reads

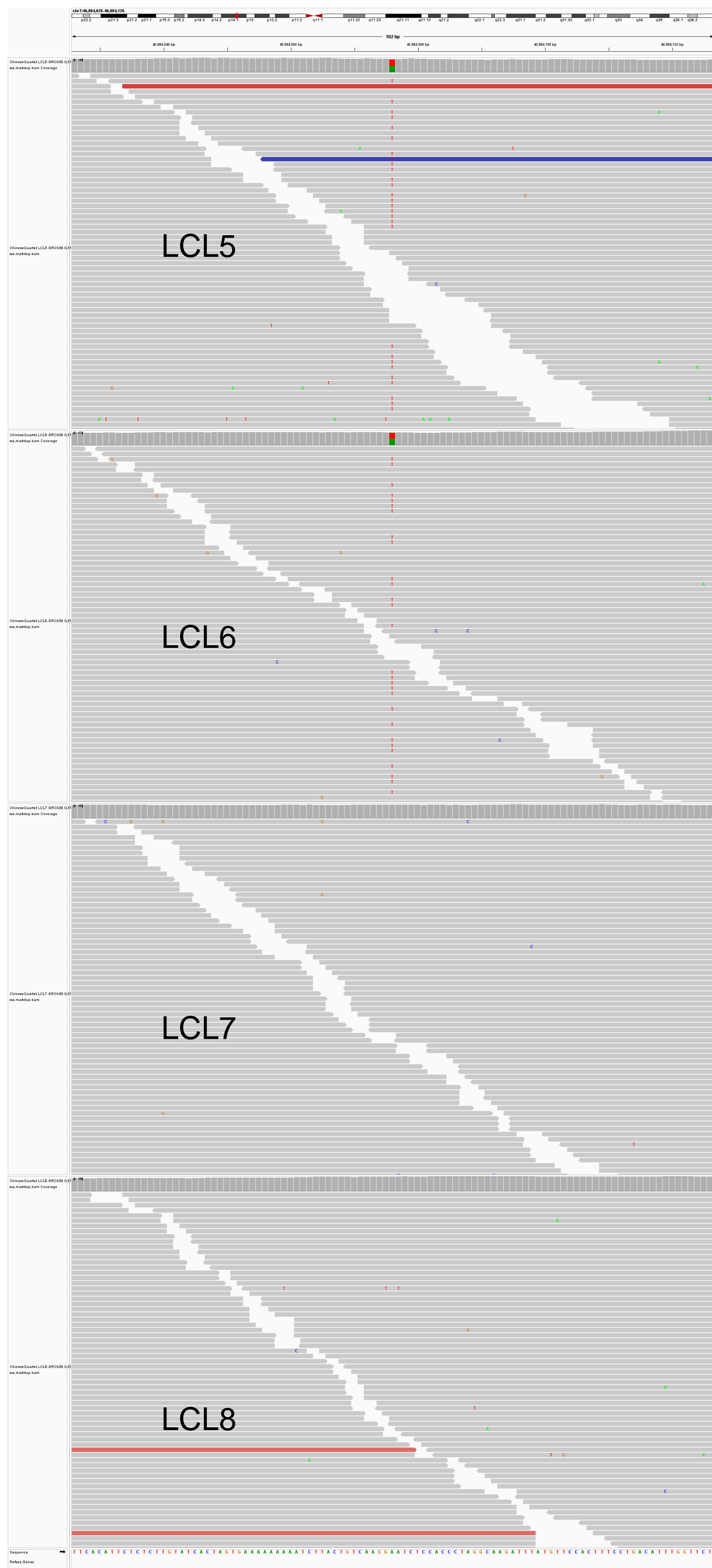


Illumina reads

# POS:chr7:40884076 Report DeNovo mutation by HiFi



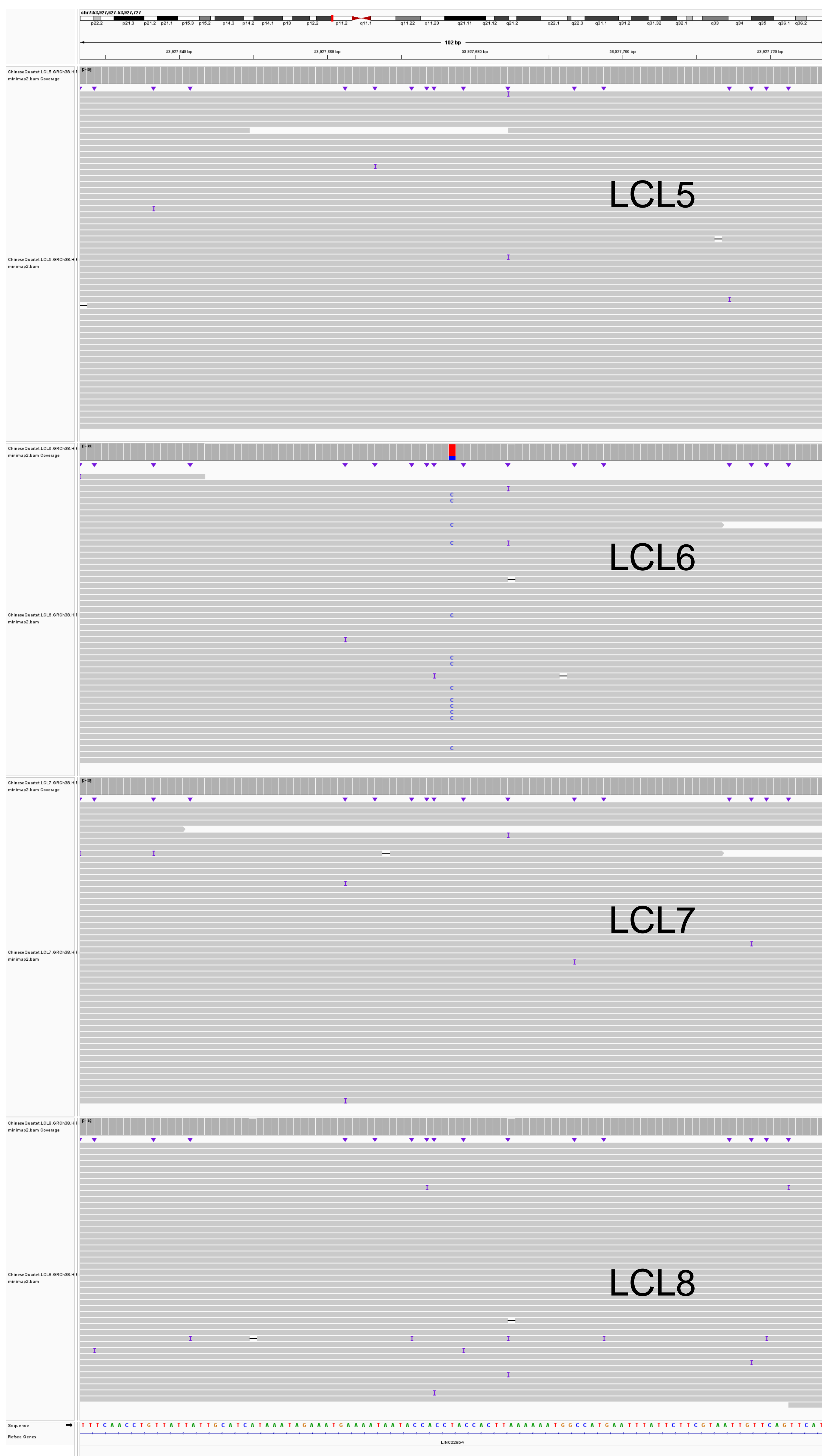
HiFi reads



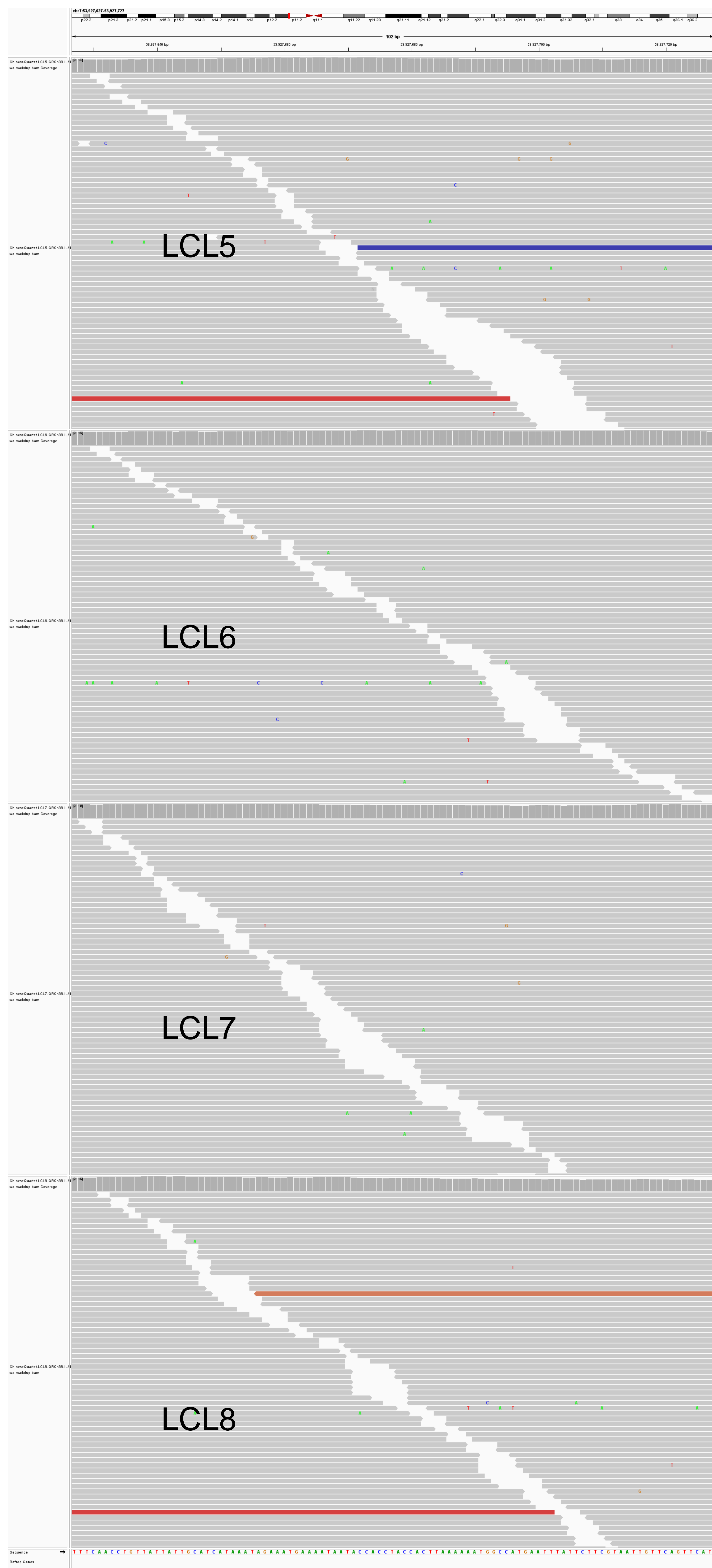
Illumina reads



# POS:chr7:53927677 Report Somatic mutation by HiFi

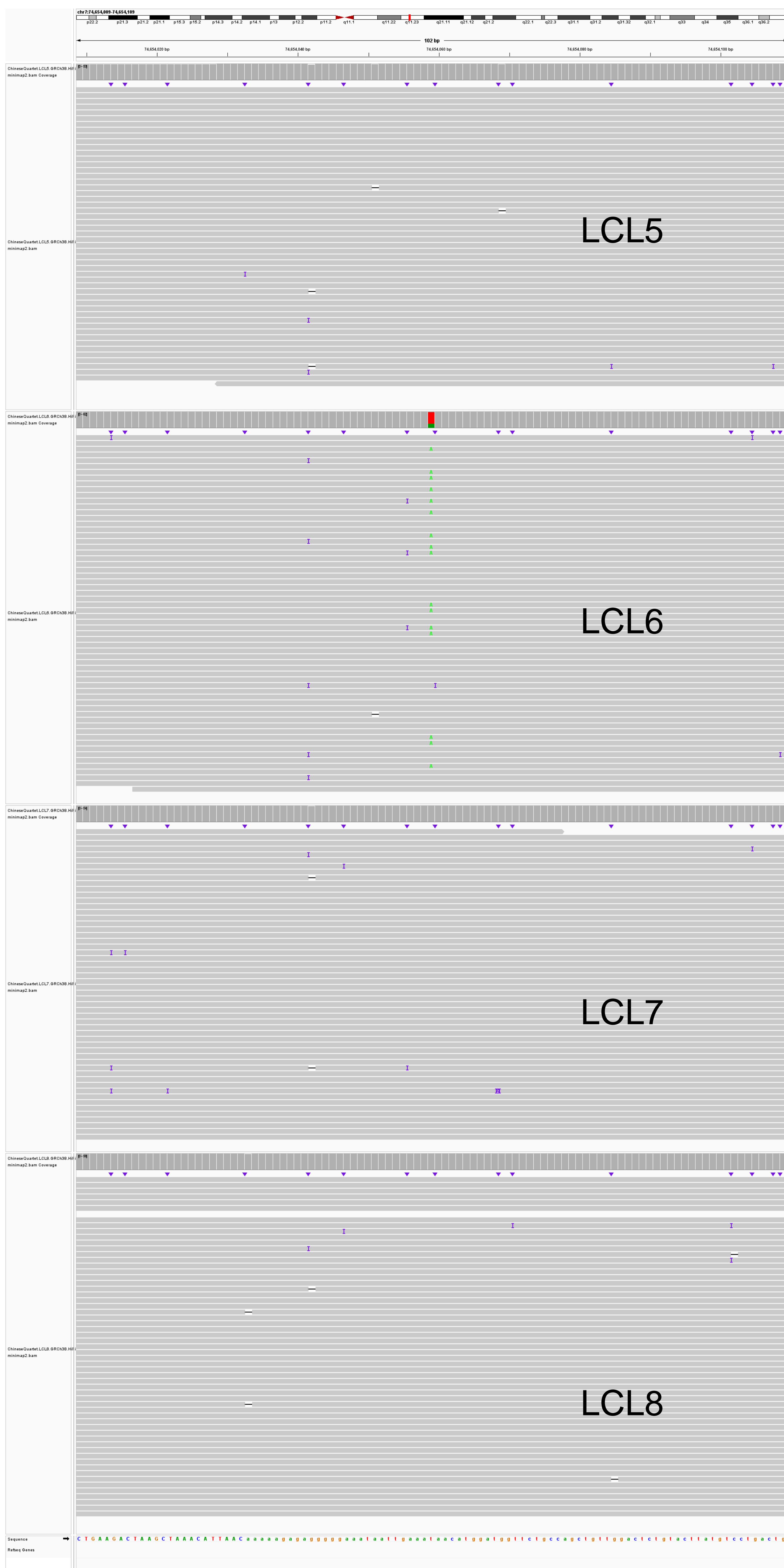


HiFi reads

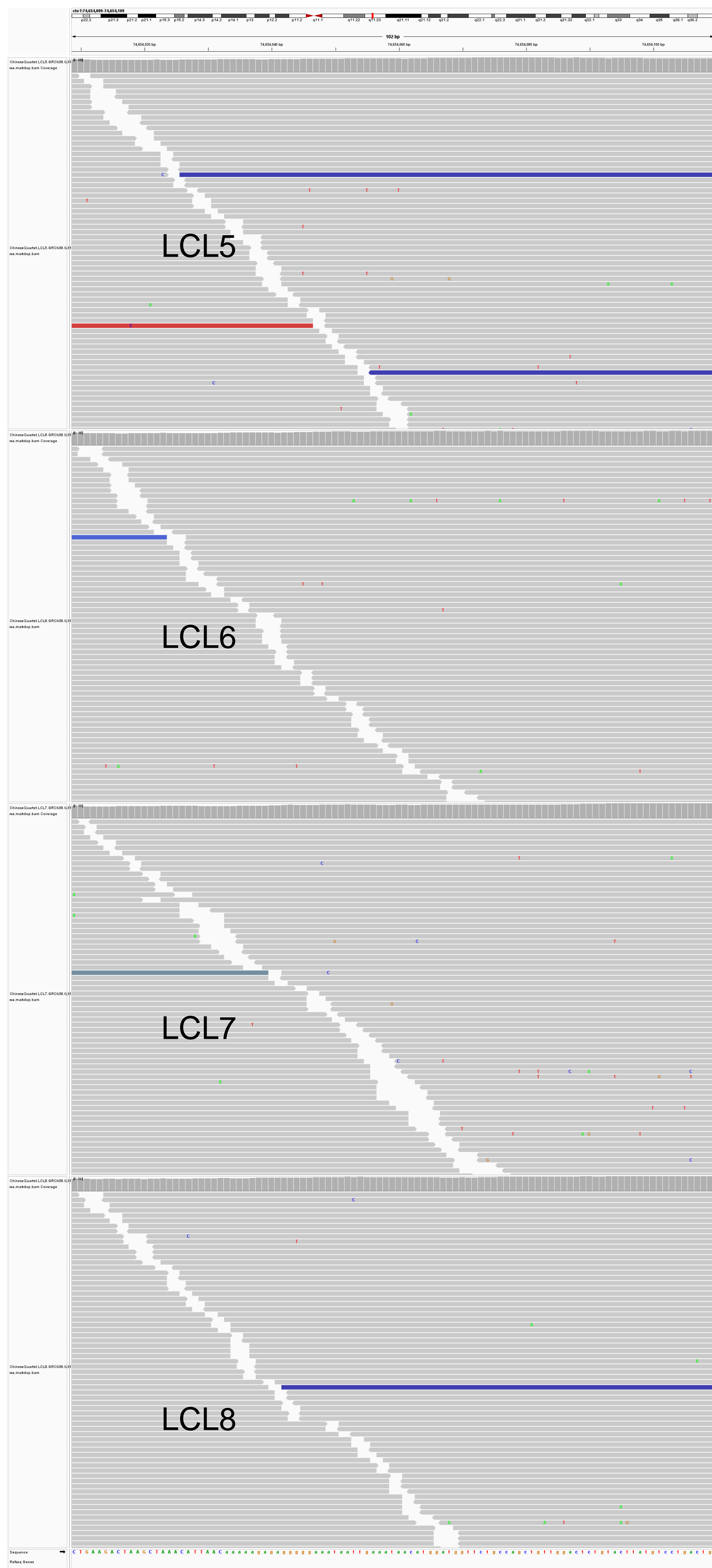


Illumina reads

# POS:chr7:74654059 Report Somatic mutation by HiFi

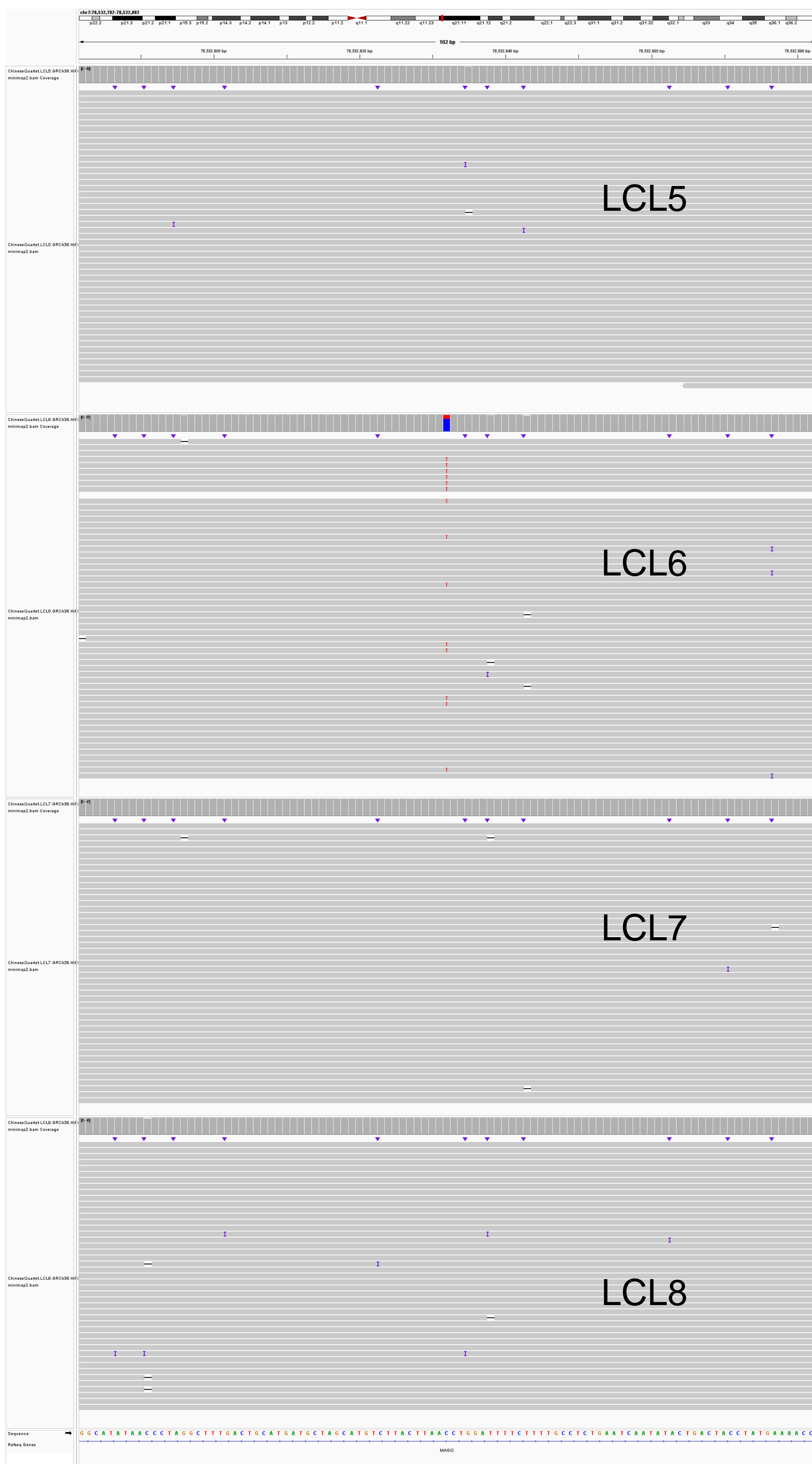


HiFi reads

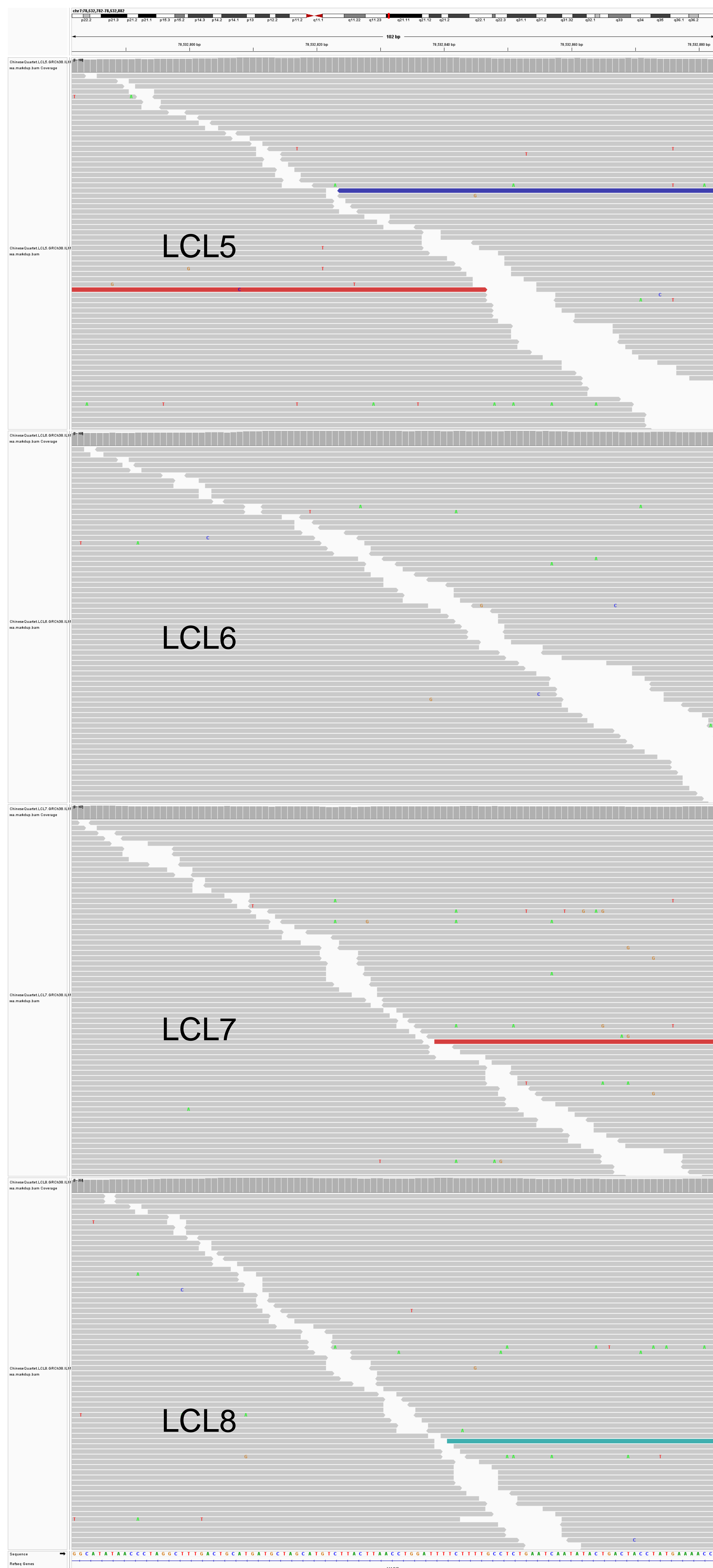


Illumina reads

# POS:chr7:78532832 Report Somatic mutation by HiFi



HiFi reads

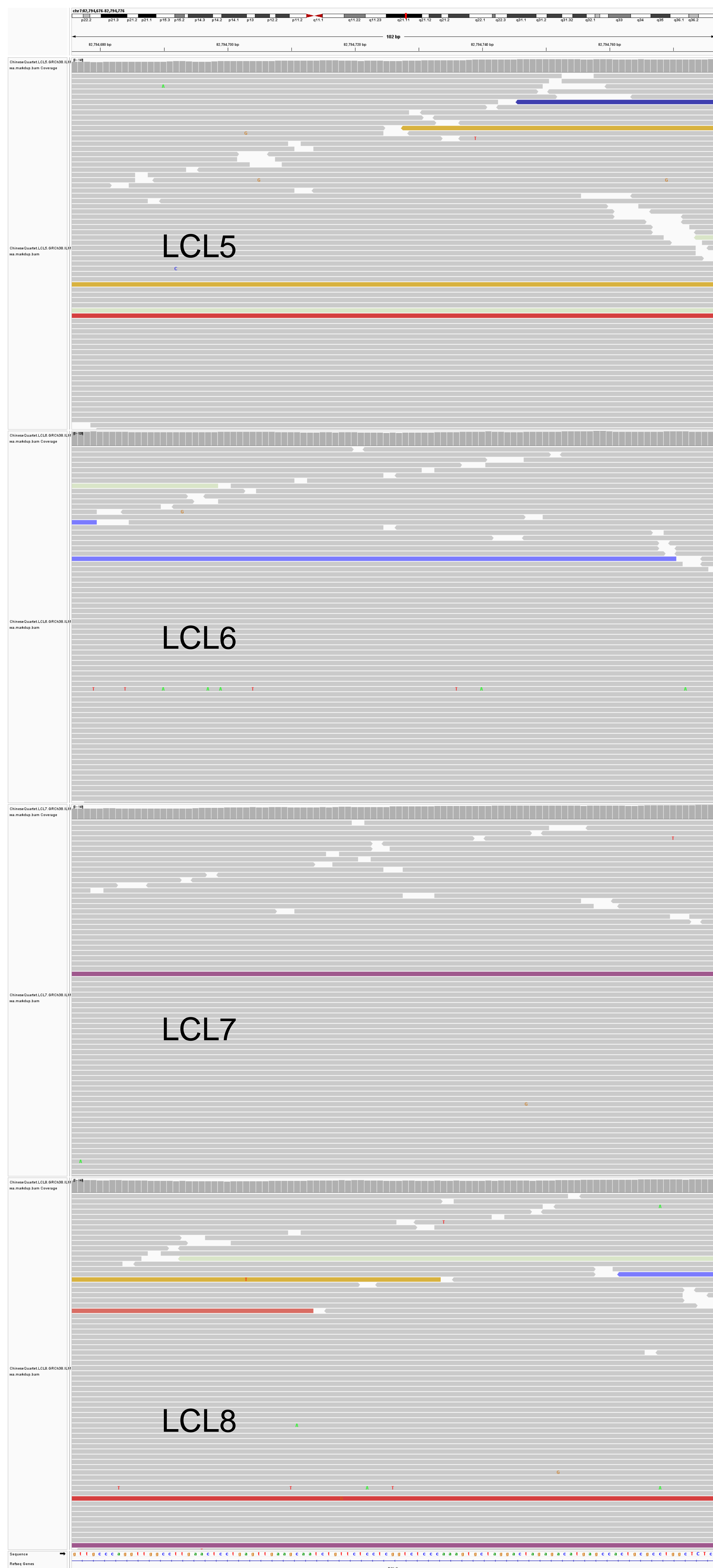


Illumina reads

# POS:chr7:82794726 Report Somatic mutation by HiFi



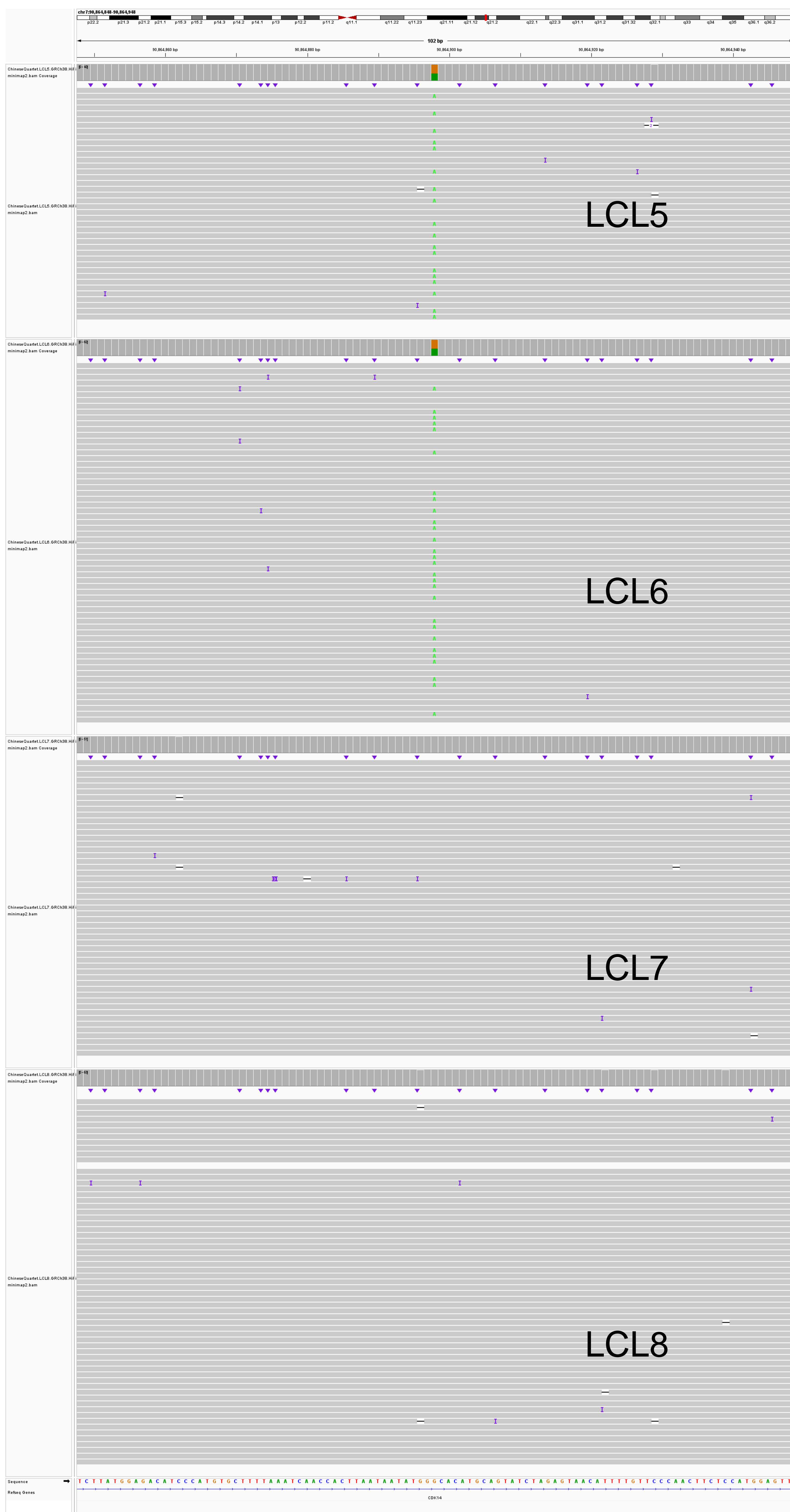
HiFi reads



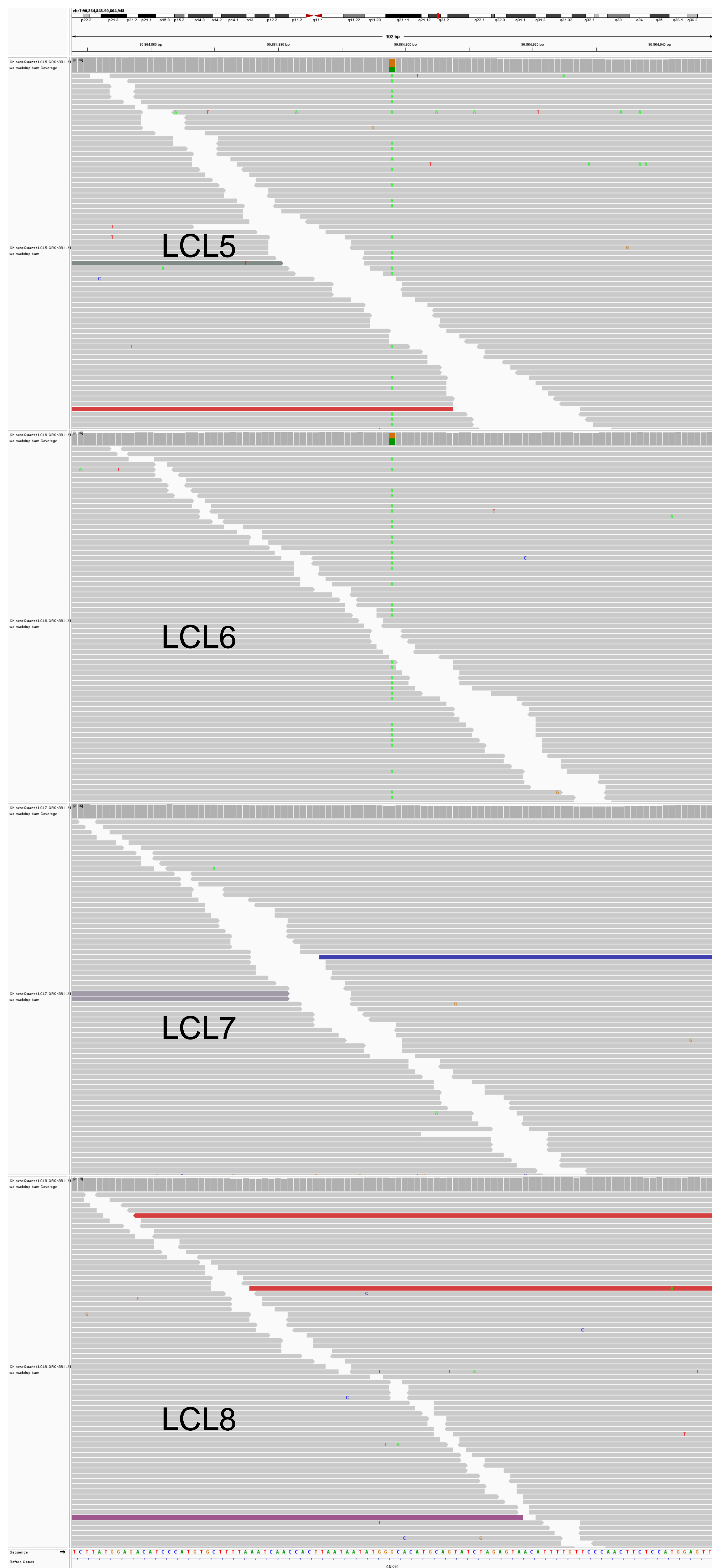
Illumina reads



# POS:chr7:90864898 Report DeNovo mutation by ILM

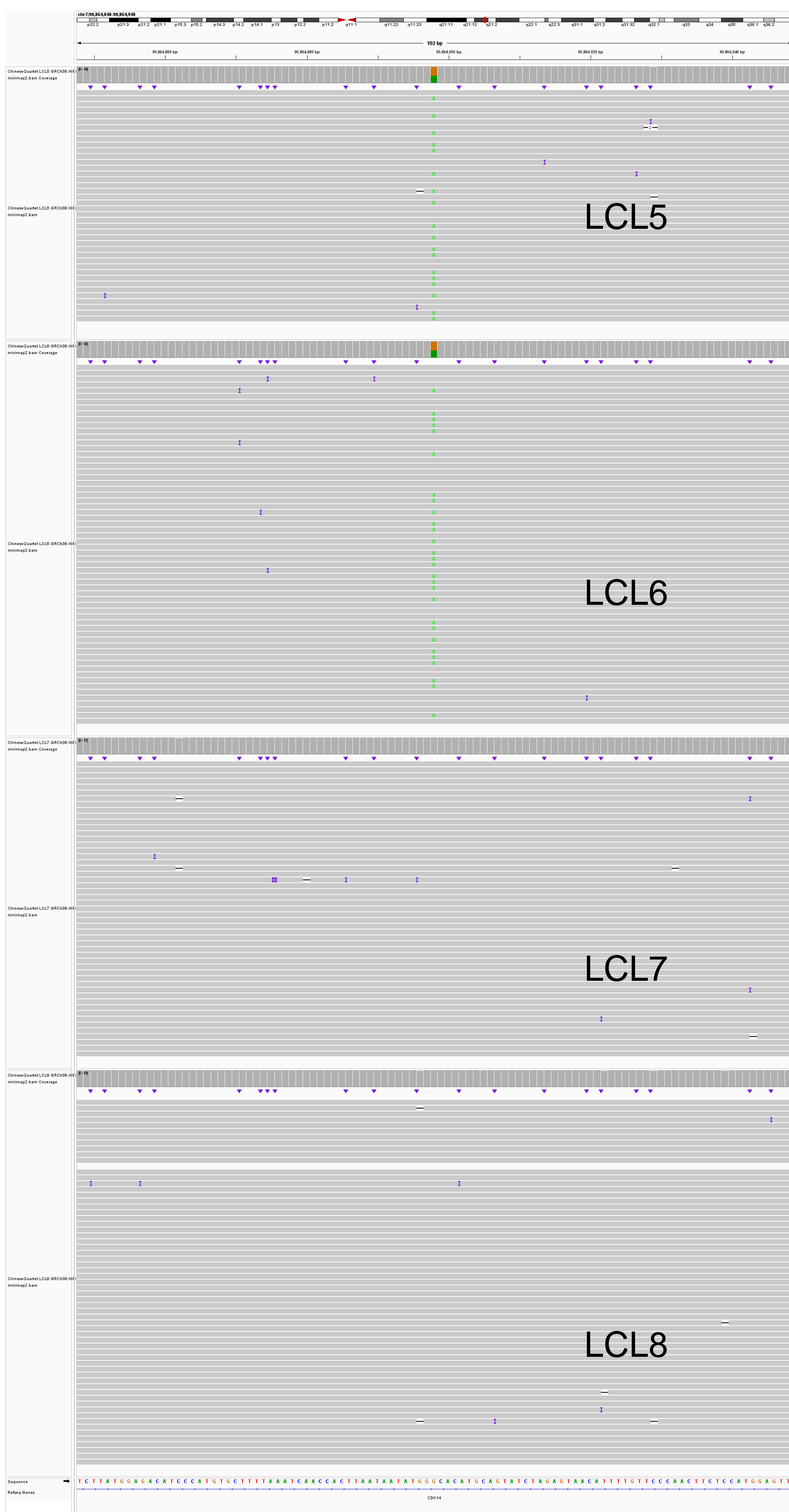


HiFi reads

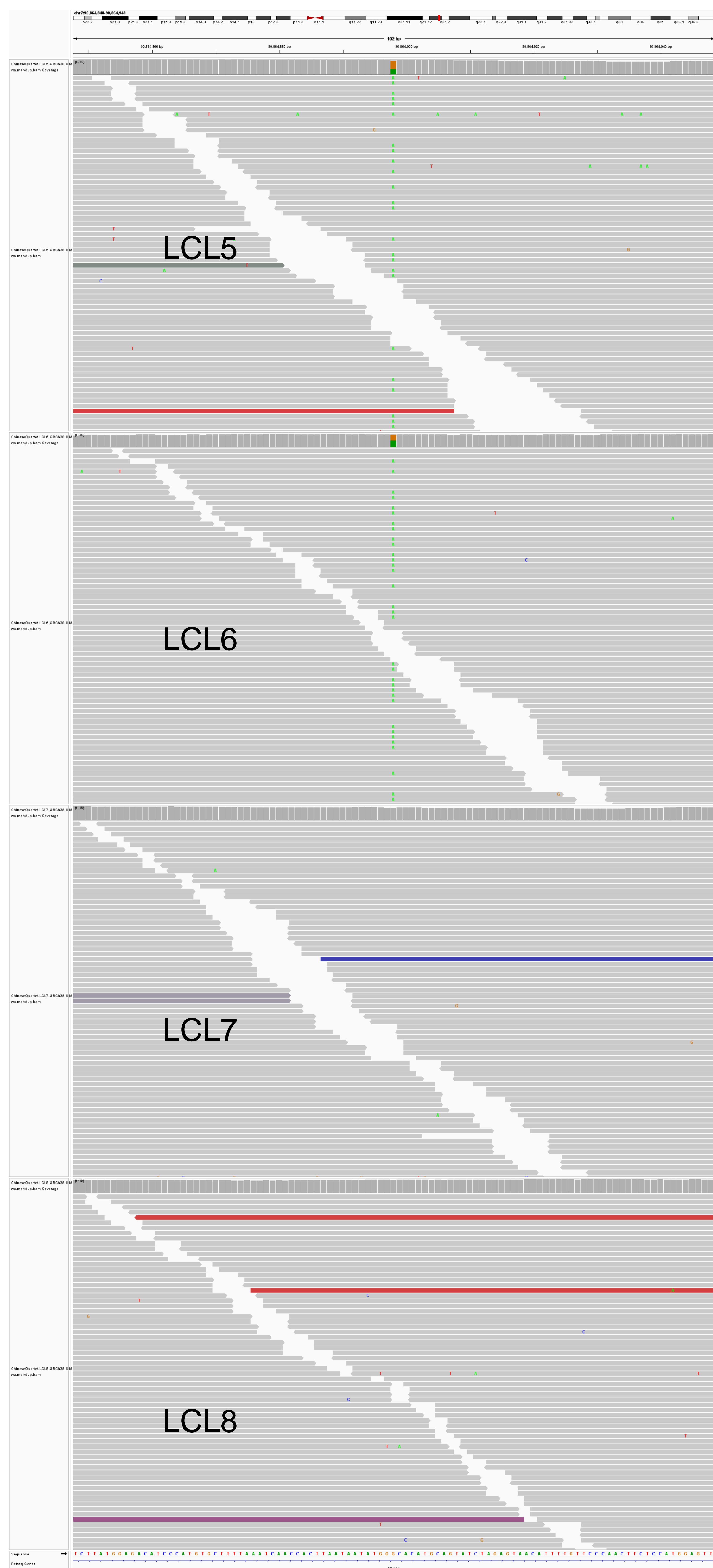


Illumina reads

# POS:chr7:90864898 Report DeNovo mutation by HiFi

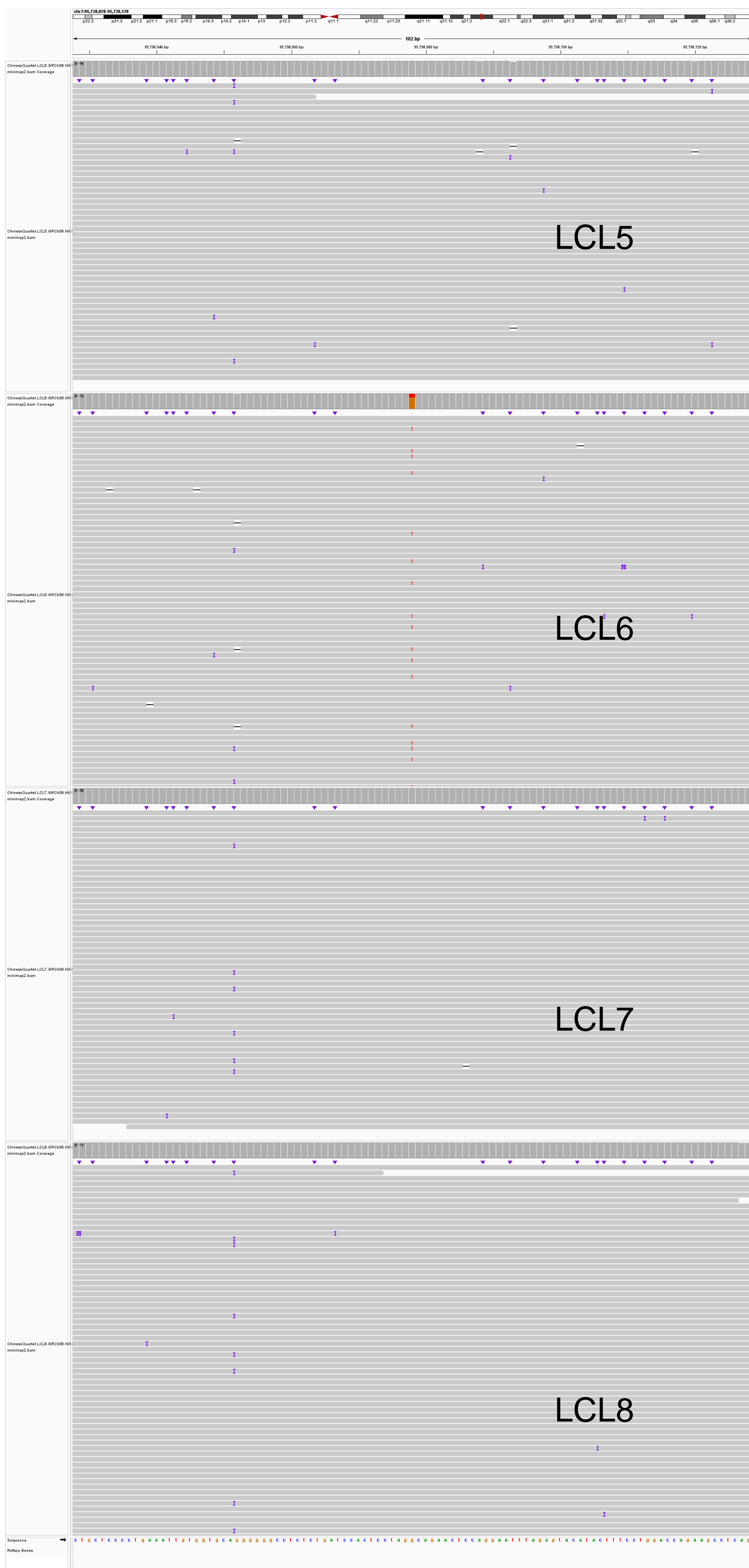


HiFi reads

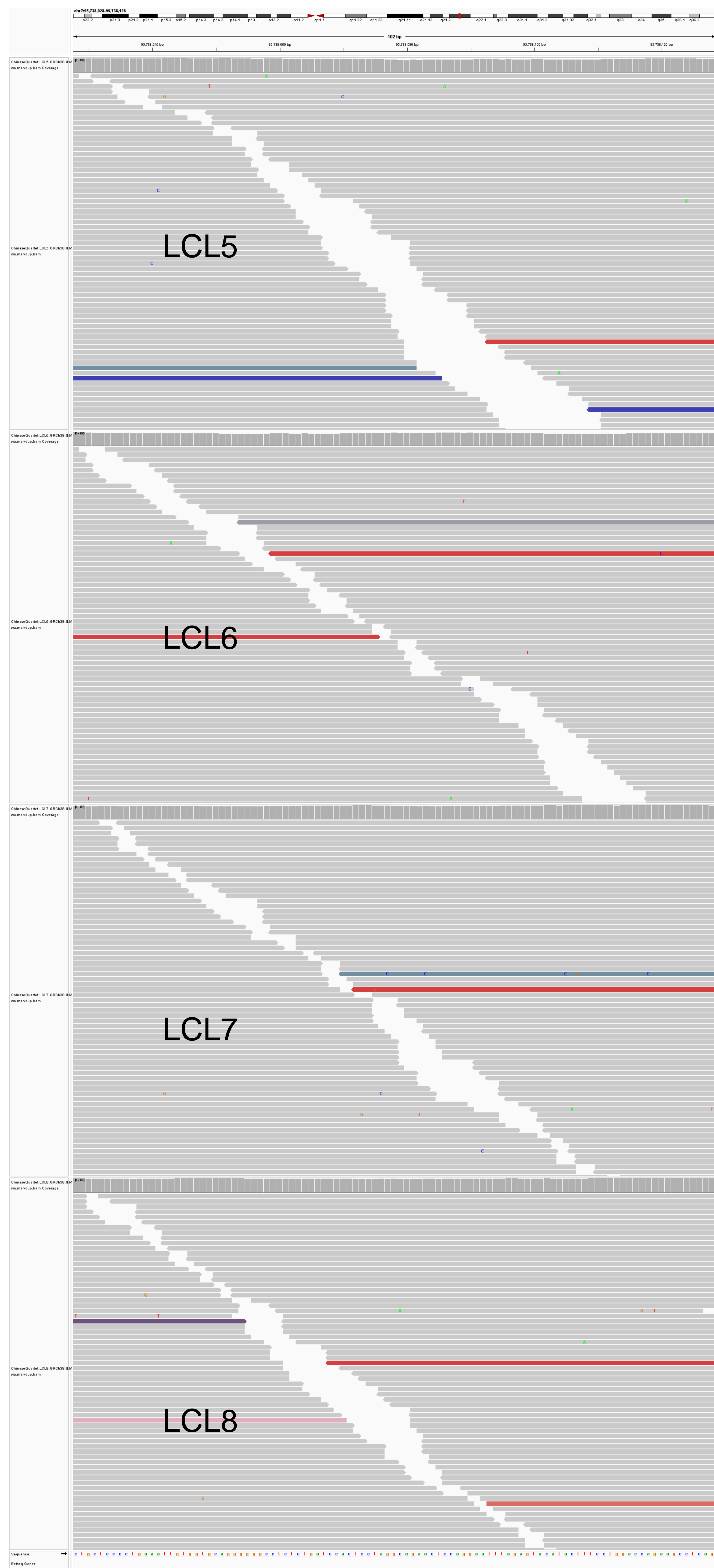


Illumina reads

# POS:chr7:95738078 Report Somatic mutation by HiFi

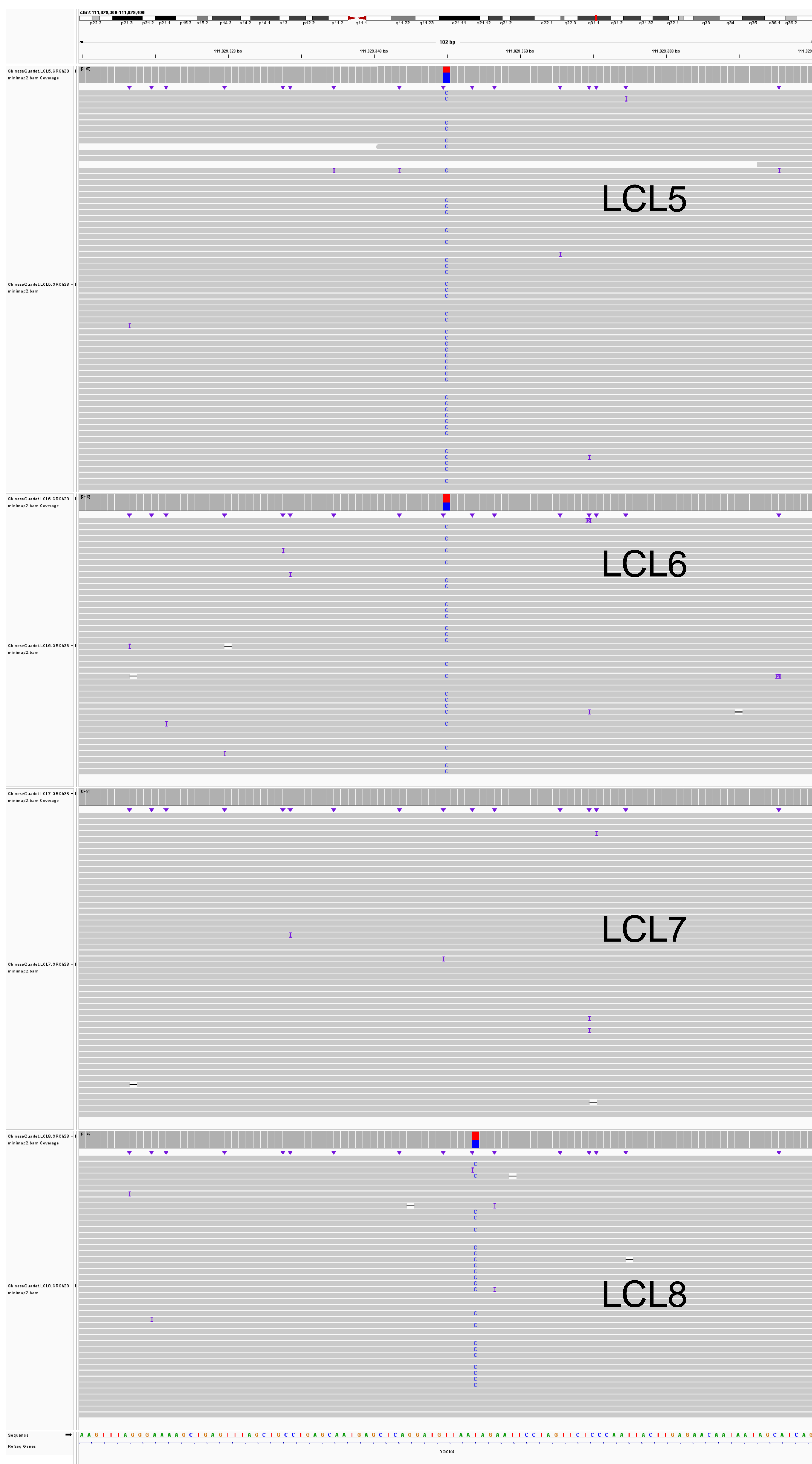


HiFi reads

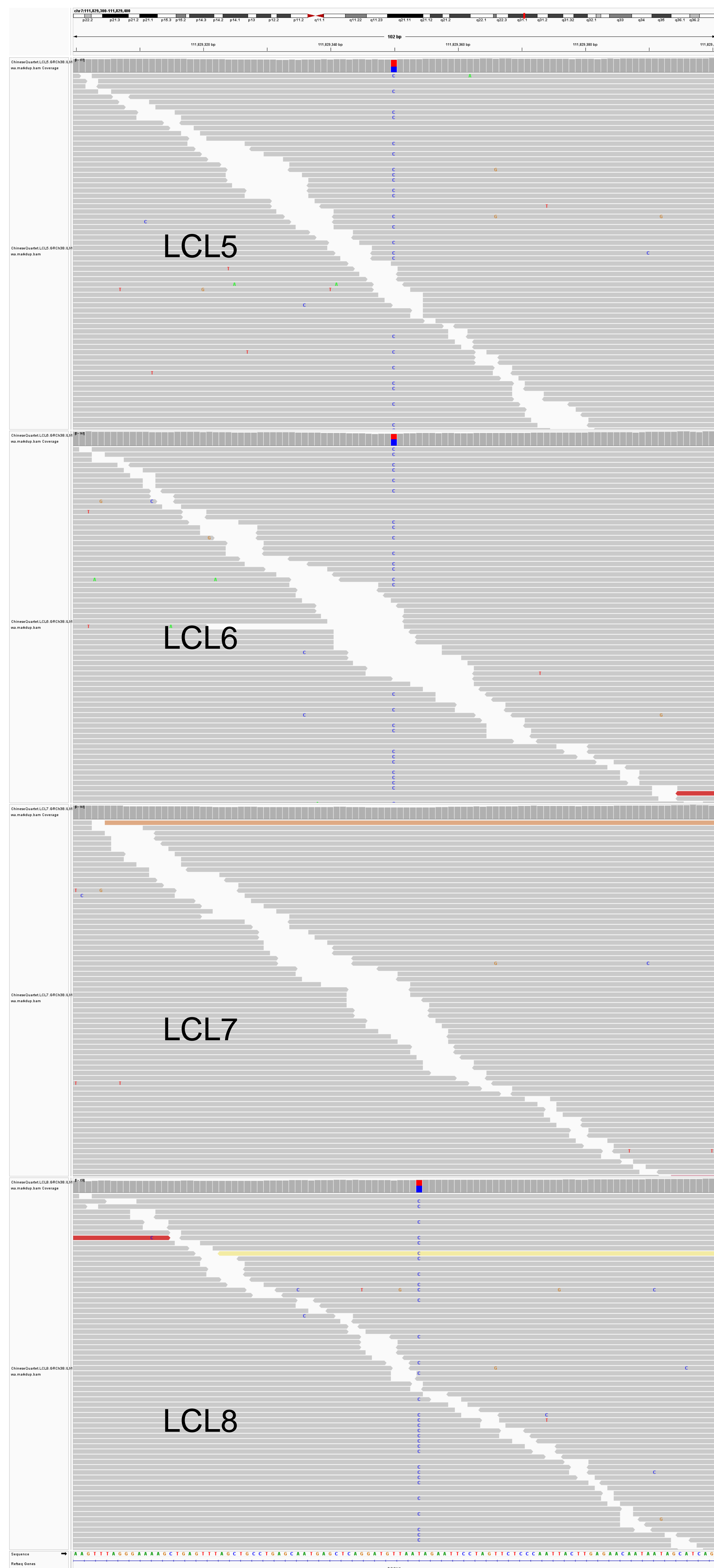


Illumina reads

# POS:chr7:111829350 Report DeNovo mutation by ILM



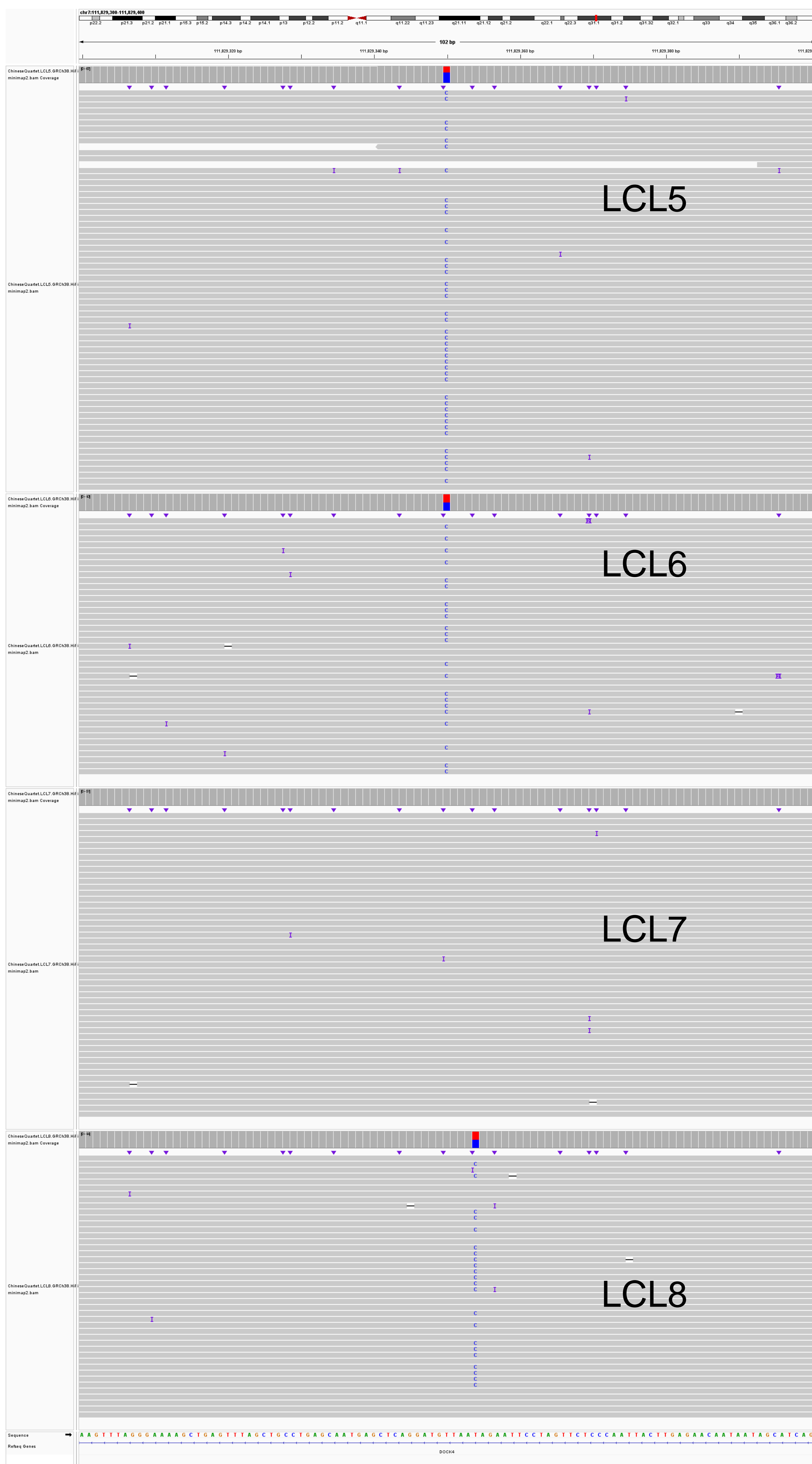
HiFi reads



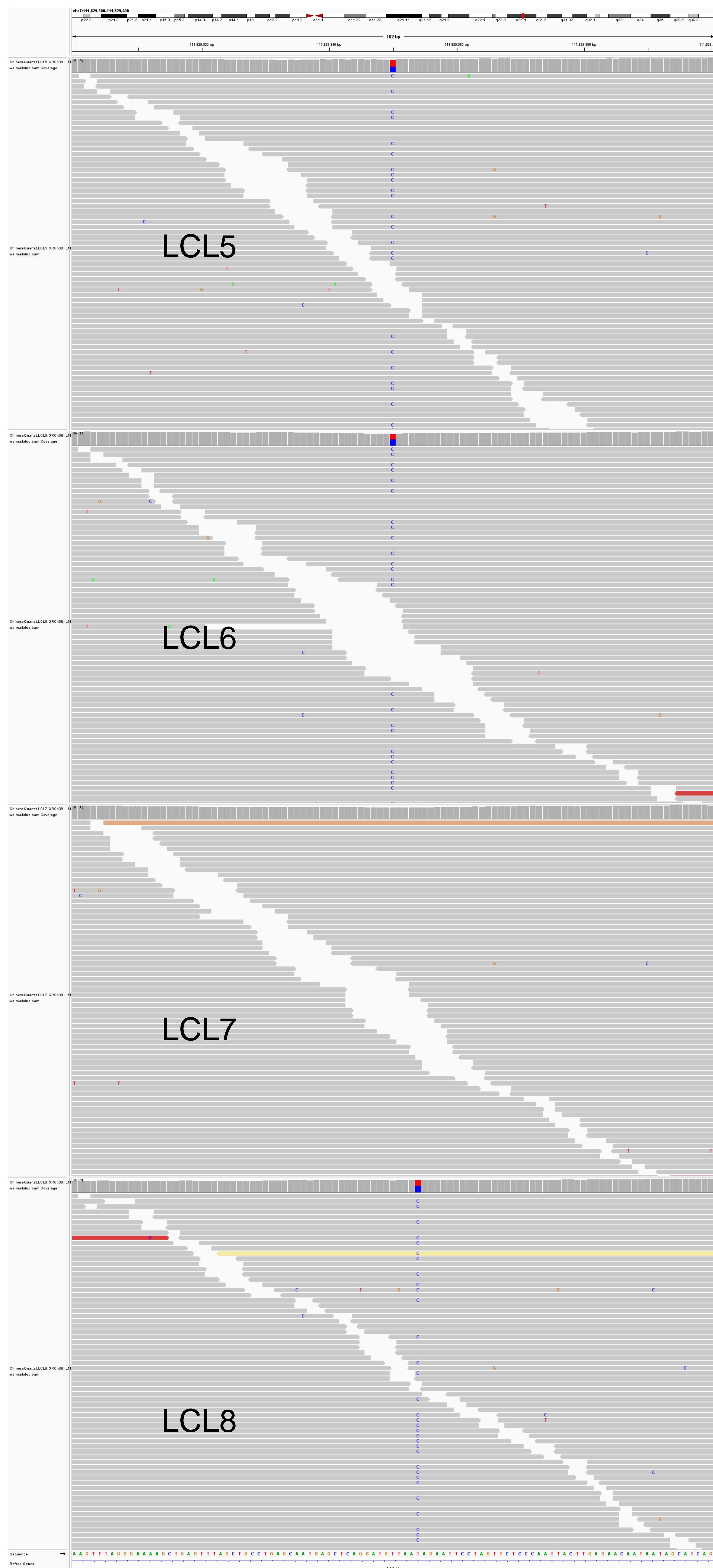
Illumina reads



# POS:chr7:111829350 Report DeNovo mutation by HiFi

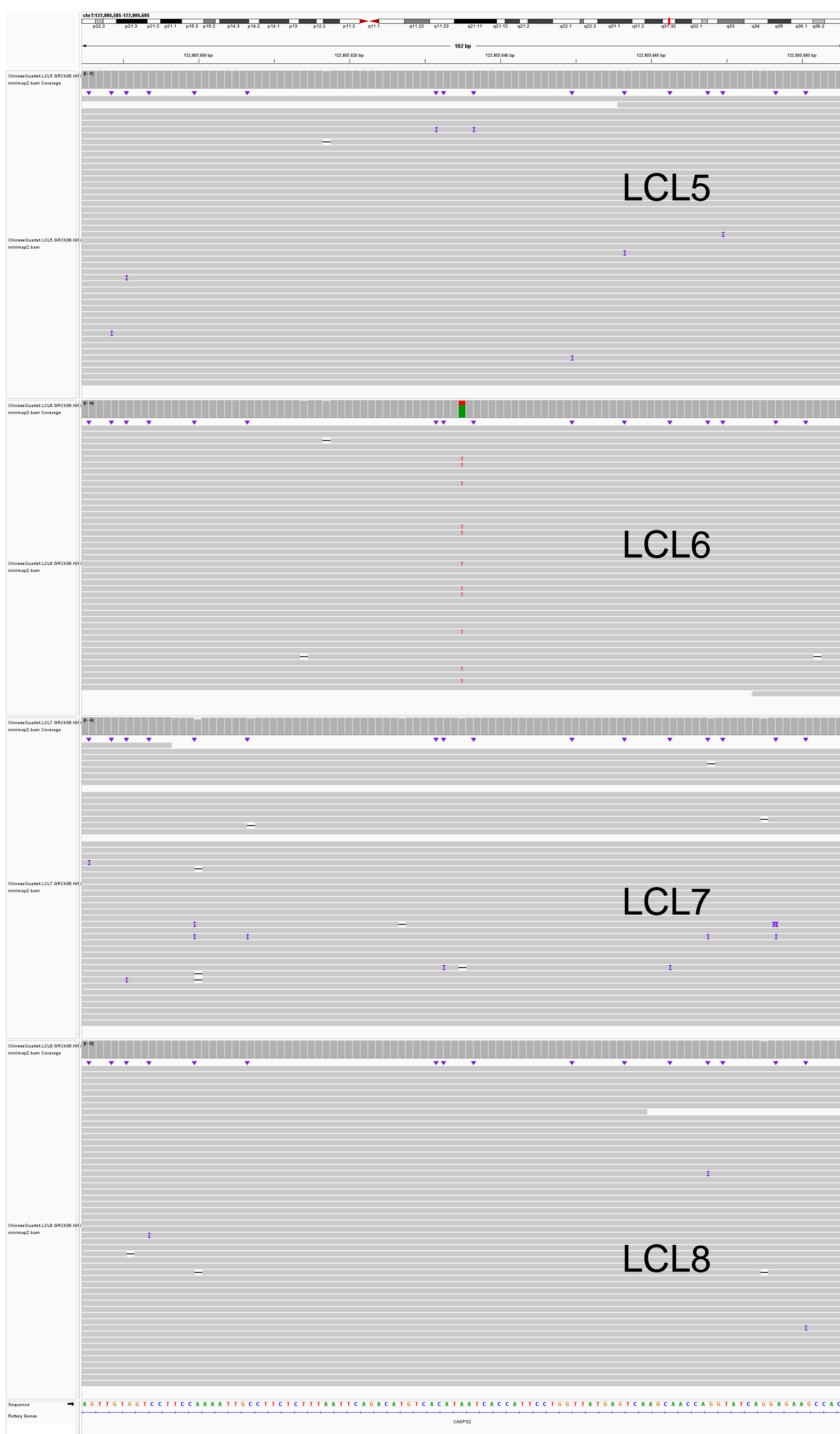


HiFi reads

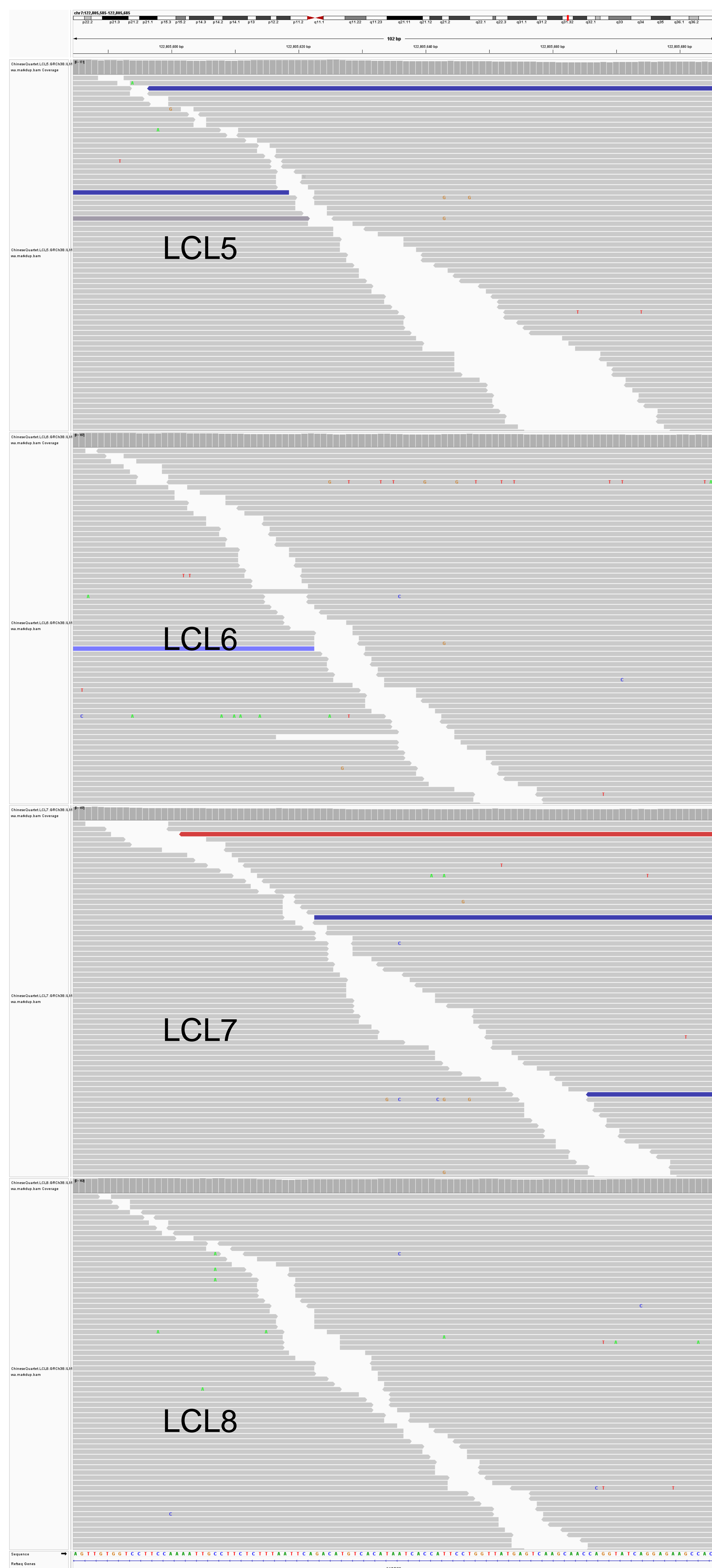


Illumina reads

# POS:chr7:122805635 Report Somatic mutation by HiFi



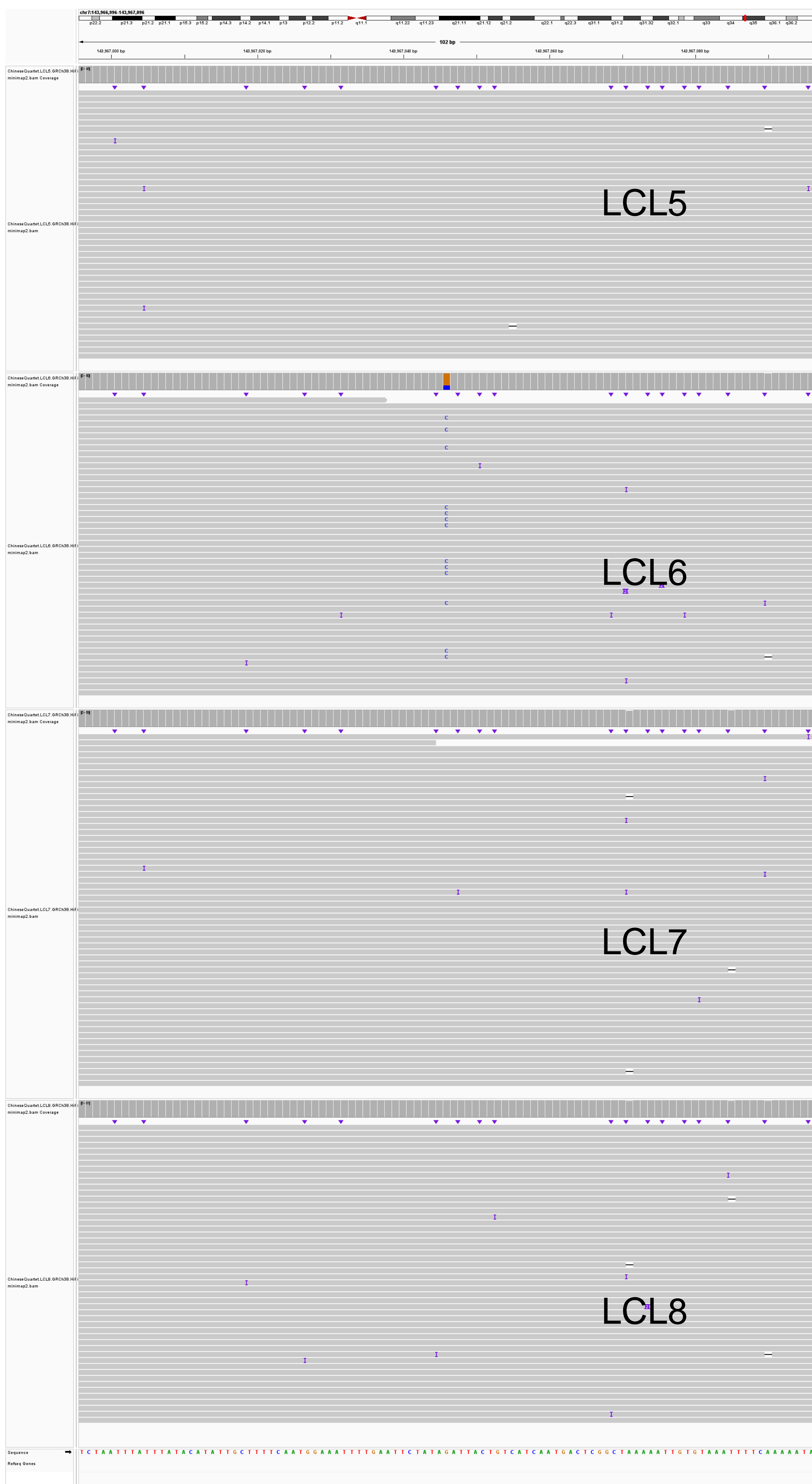
HiFi reads



Illumina reads

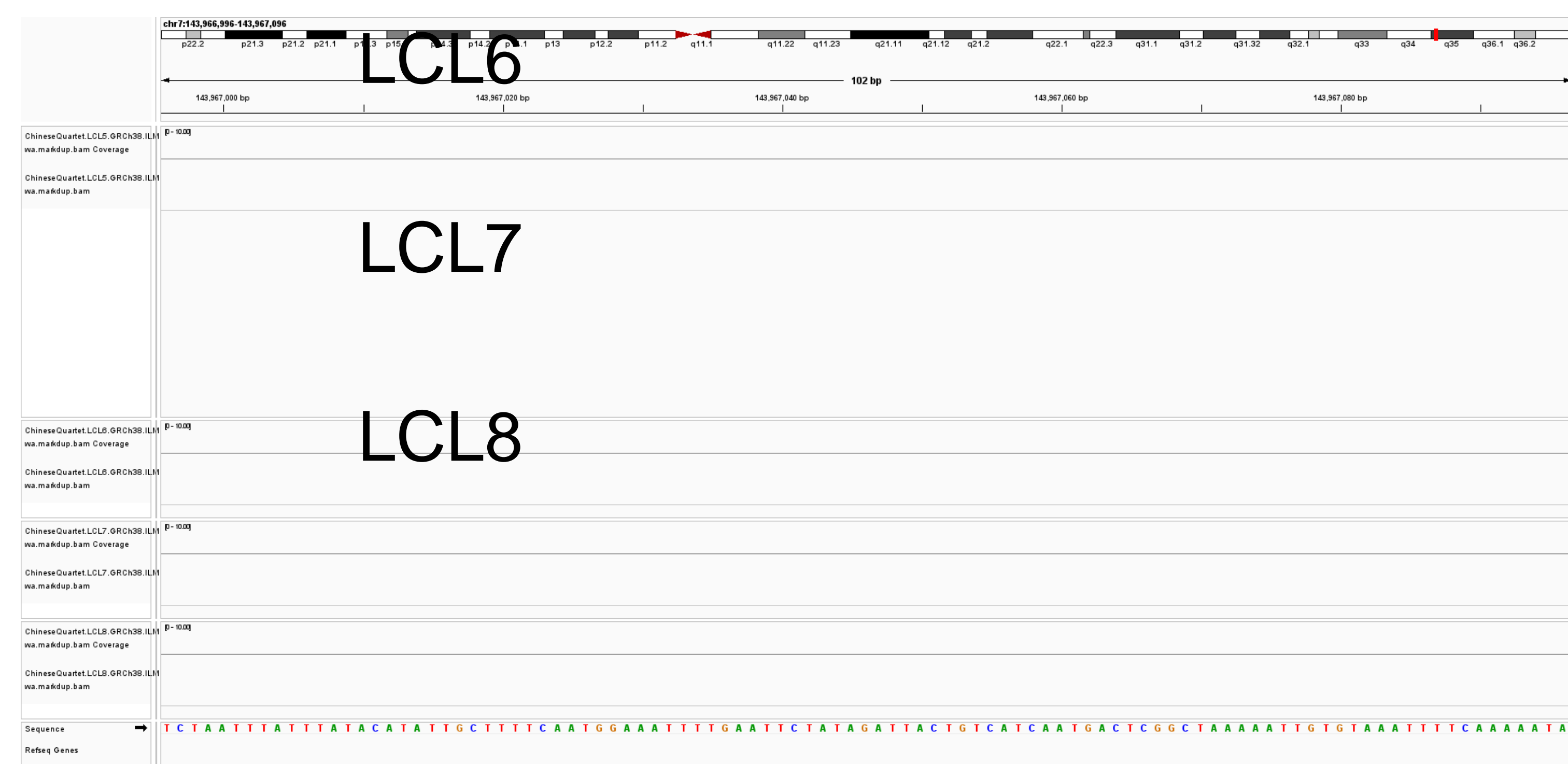
# POS:chr7:143967046 Report Somatic mutation by HiFi

## LCL5



HiFi reads

## LCL6

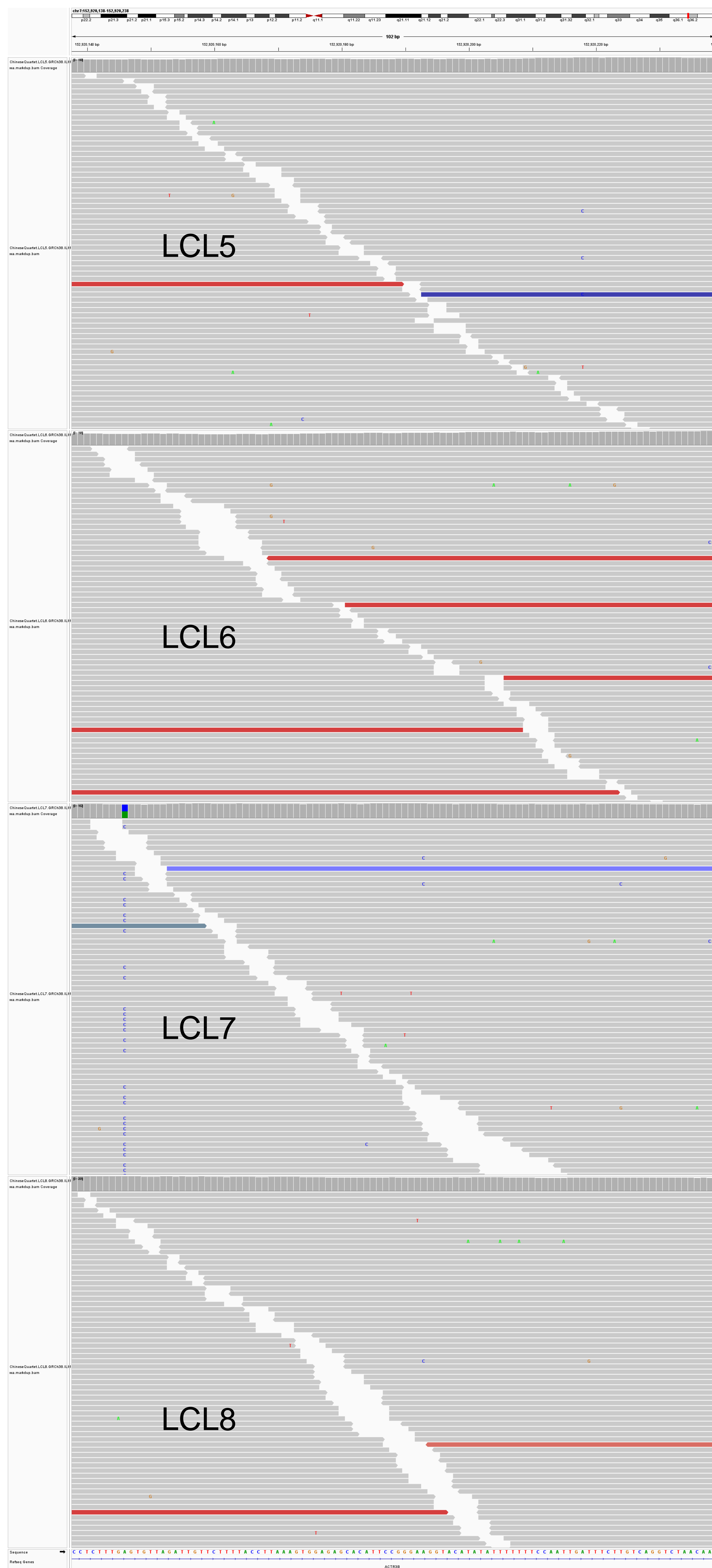


Illumina reads

# POS:chr7:152920188 Report Somatic mutation by HiFi



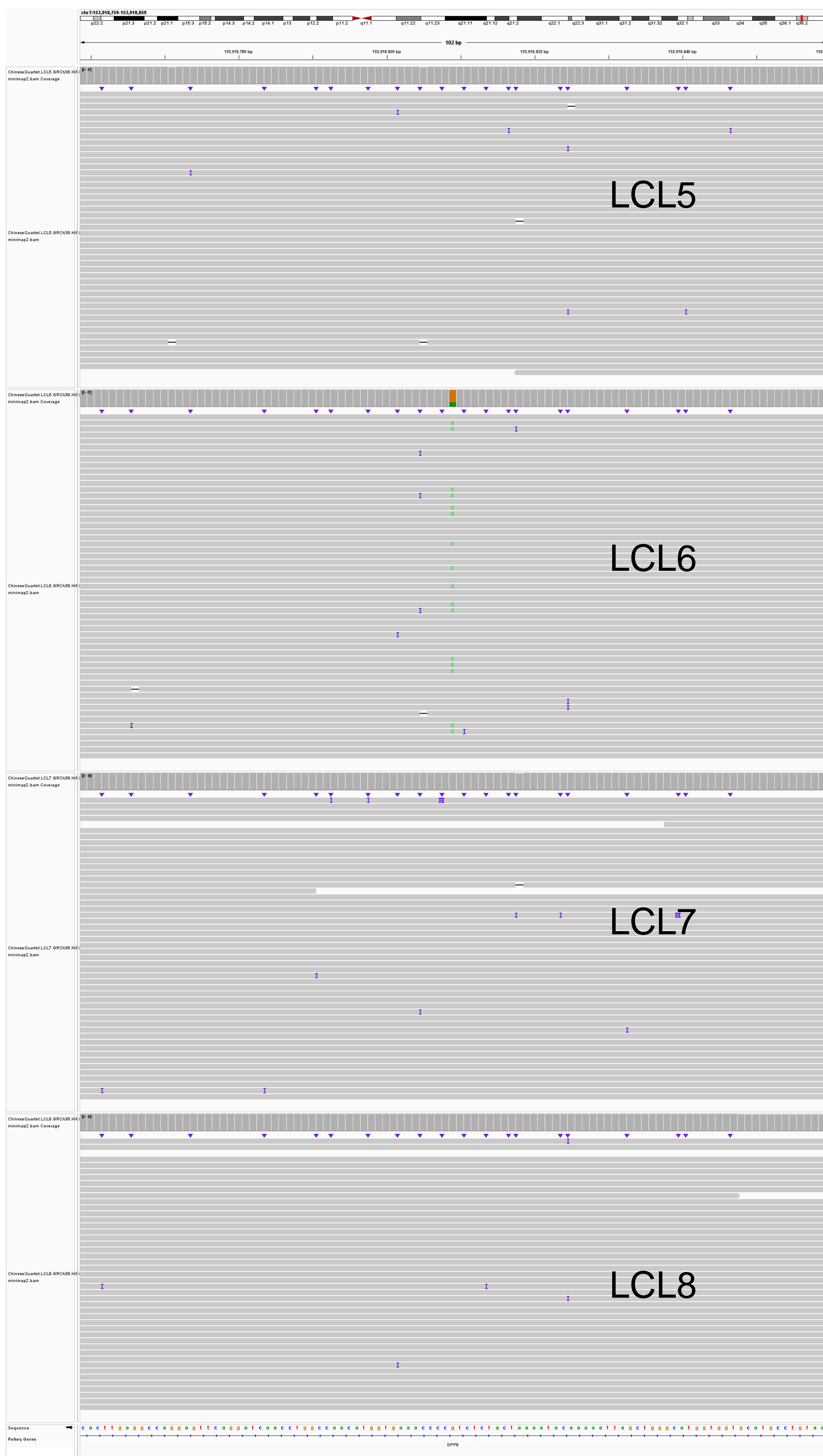
HiFi reads



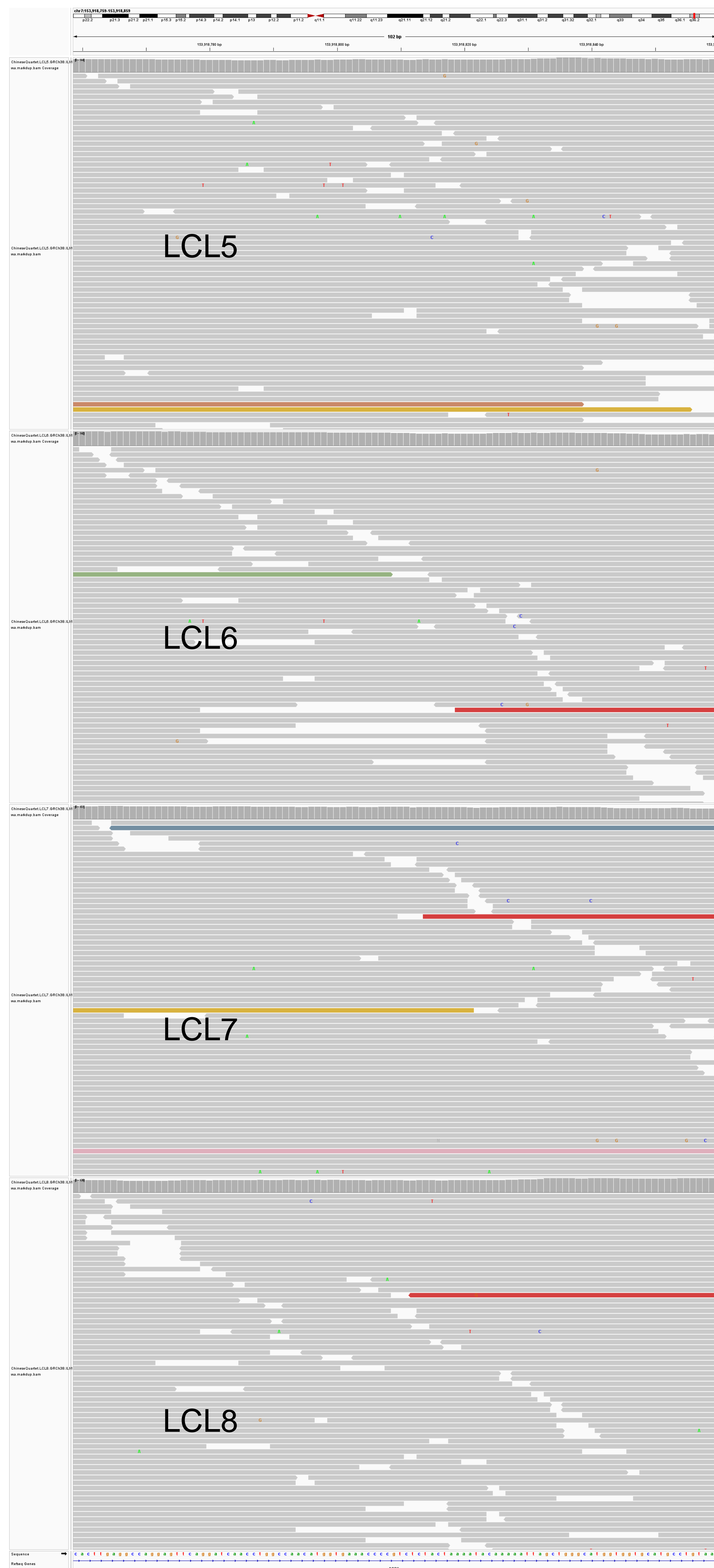
Illumina reads



# POS:chr7:153918809 Report Somatic mutation by HiFi



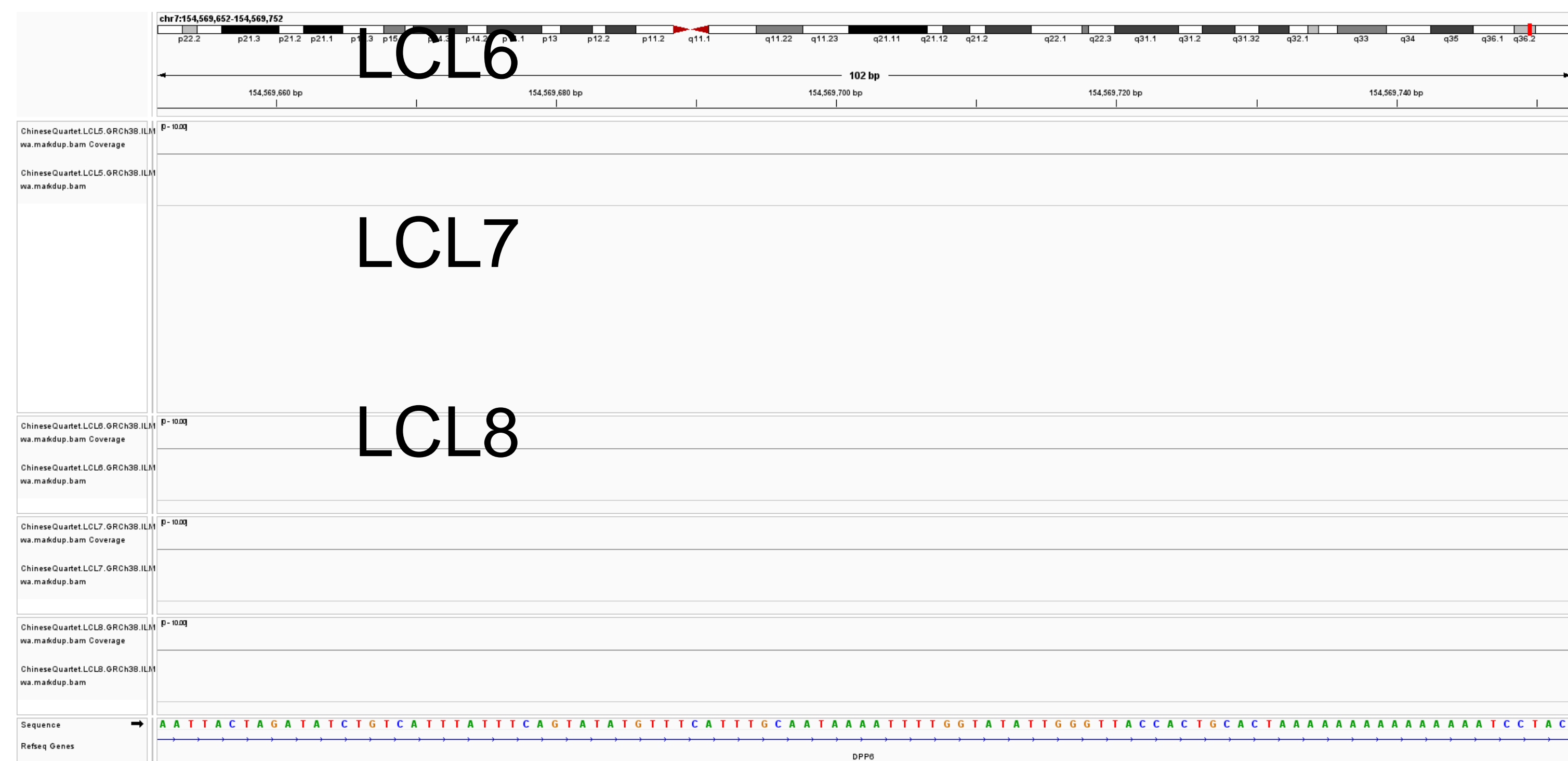
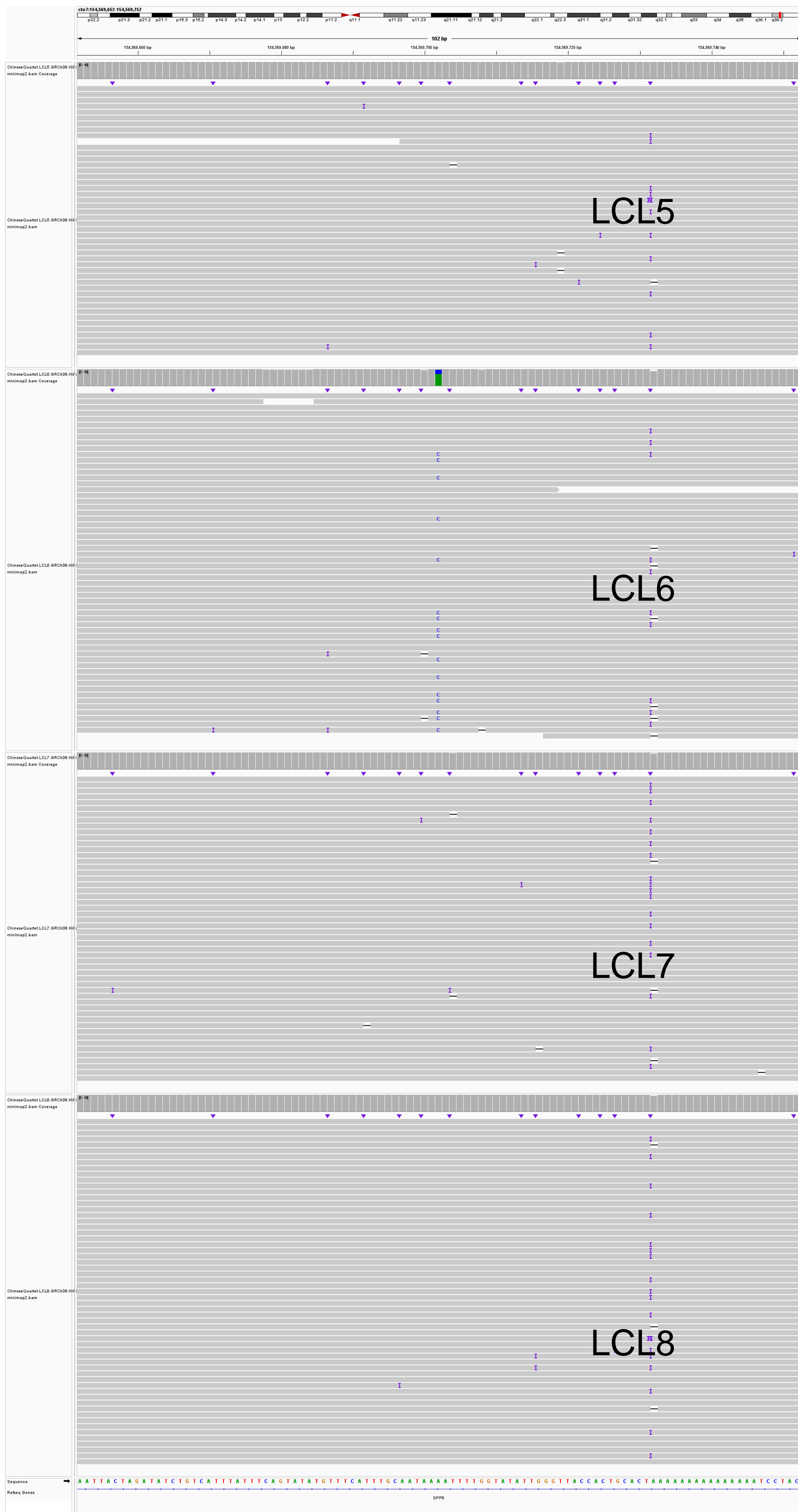
HiFi reads



Illumina reads

# POS:chr7:154569702 Report Somatic mutation by HiFi

## LCL5



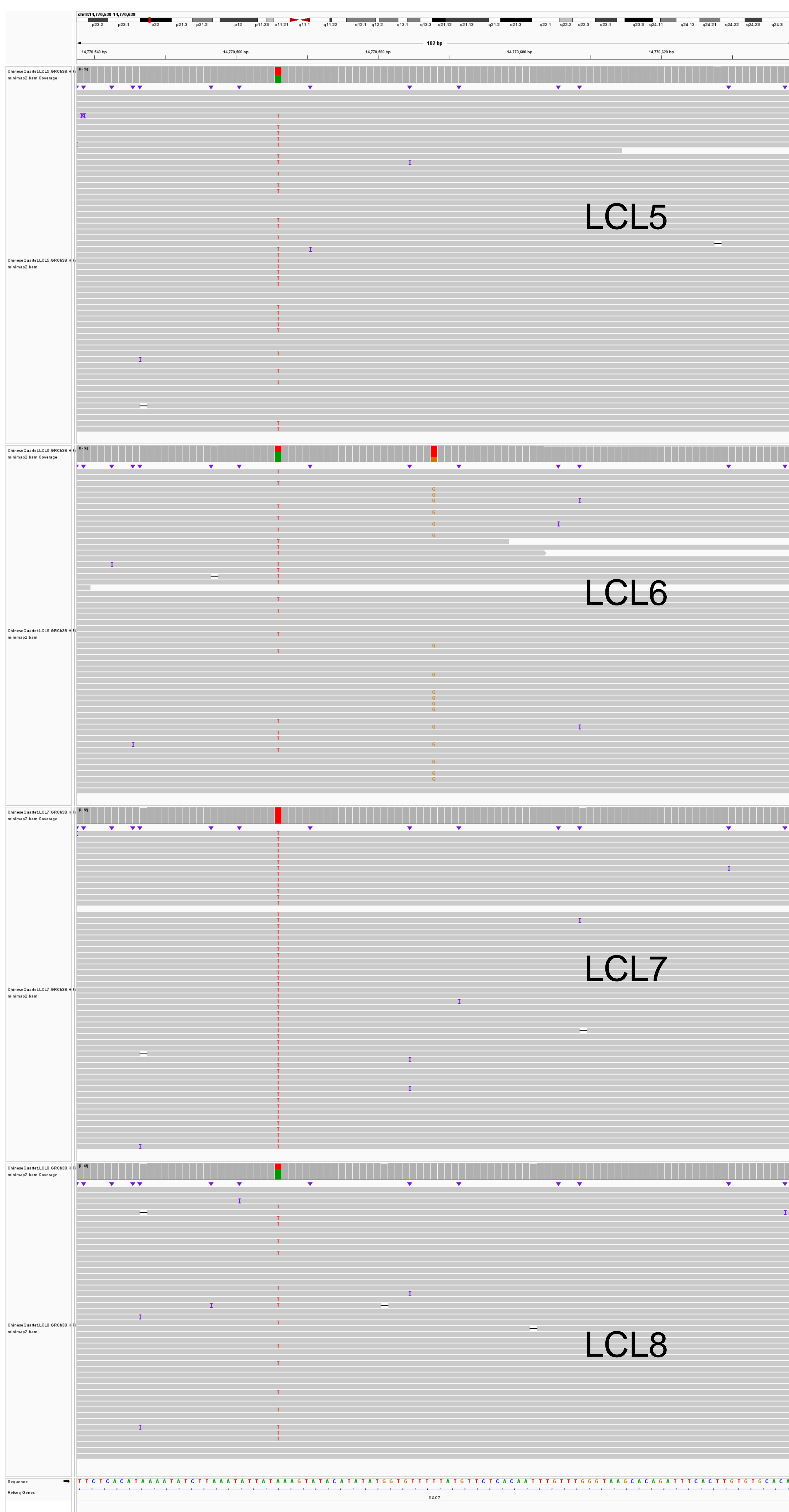
HiFi reads

Illumina reads

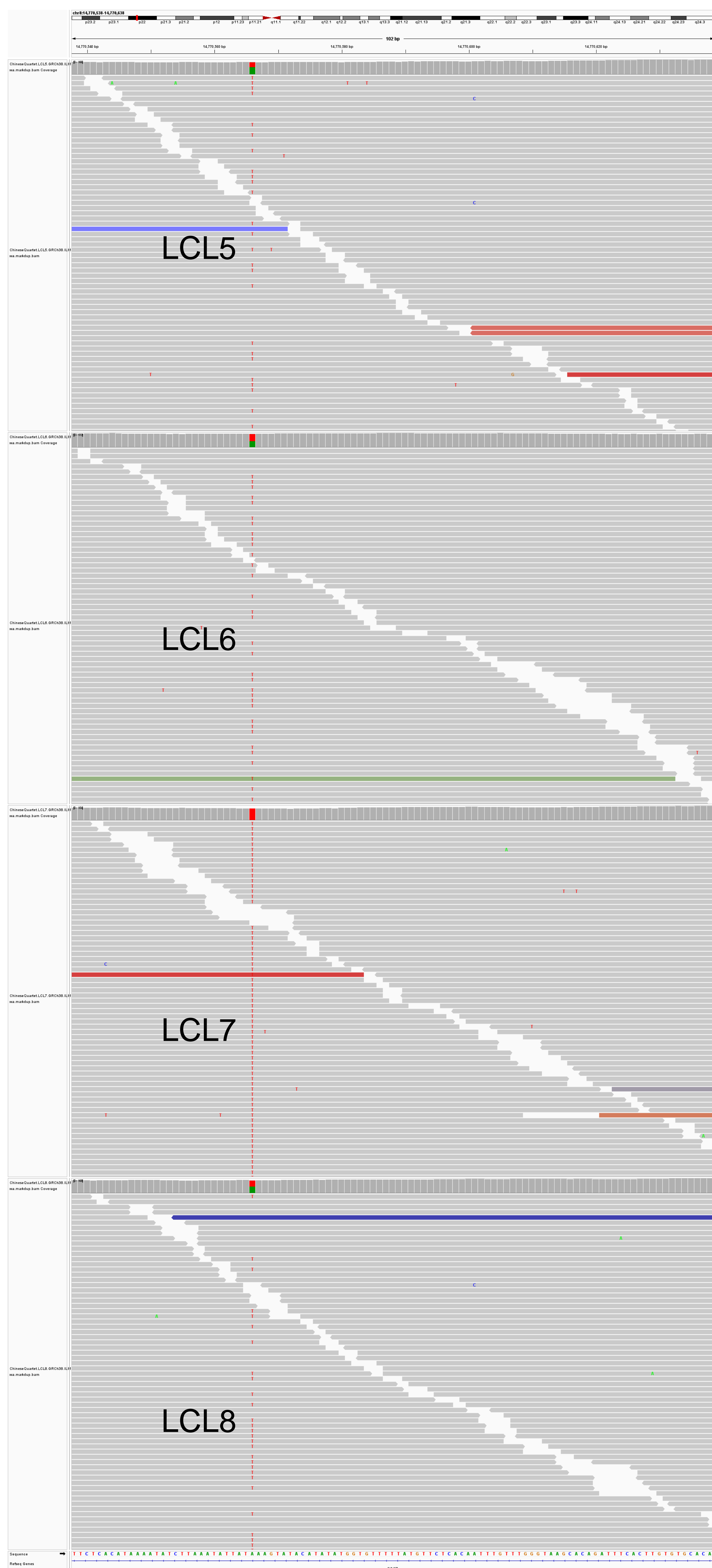




# POS:chr8:14770588 Report Somatic mutation by HiFi

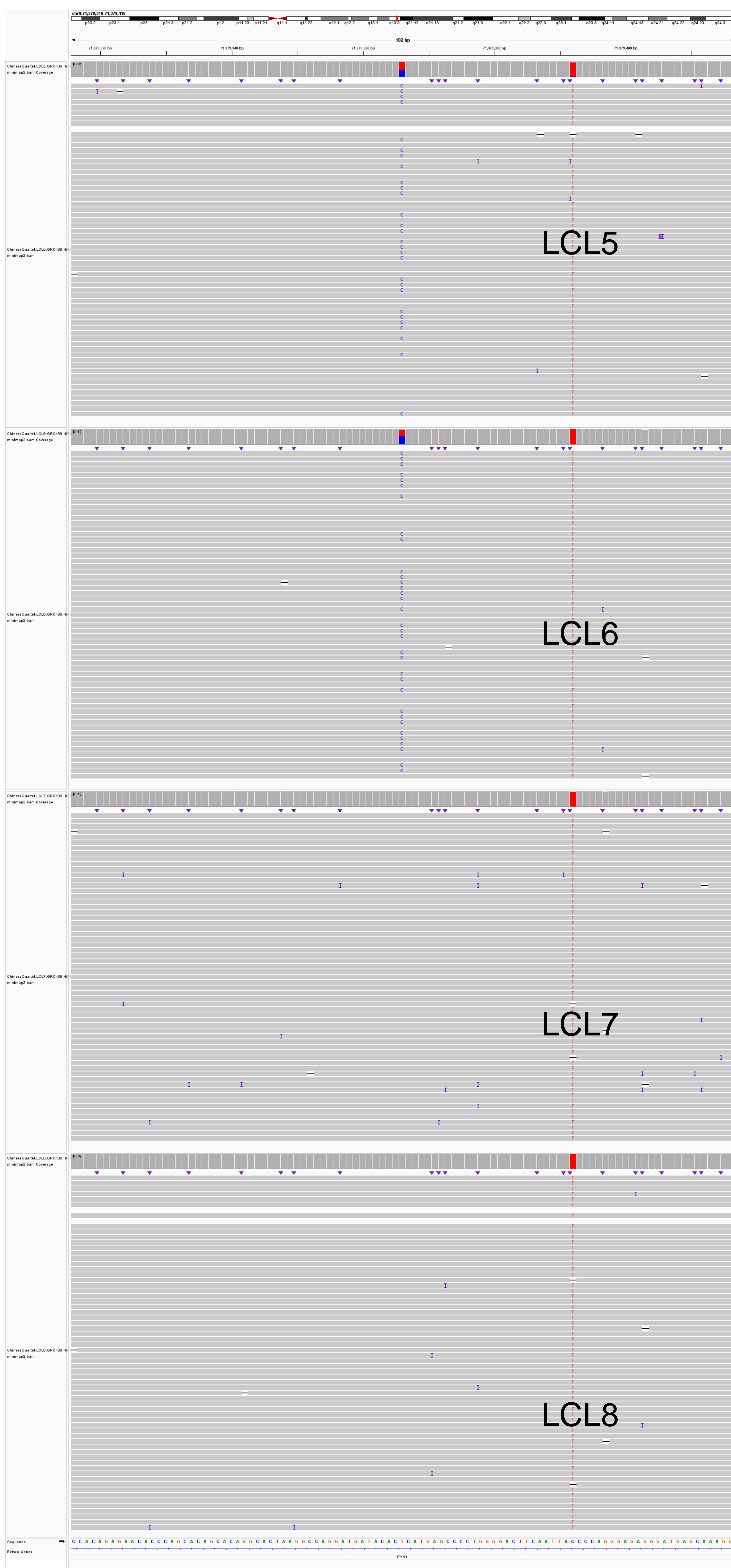


HiFi reads

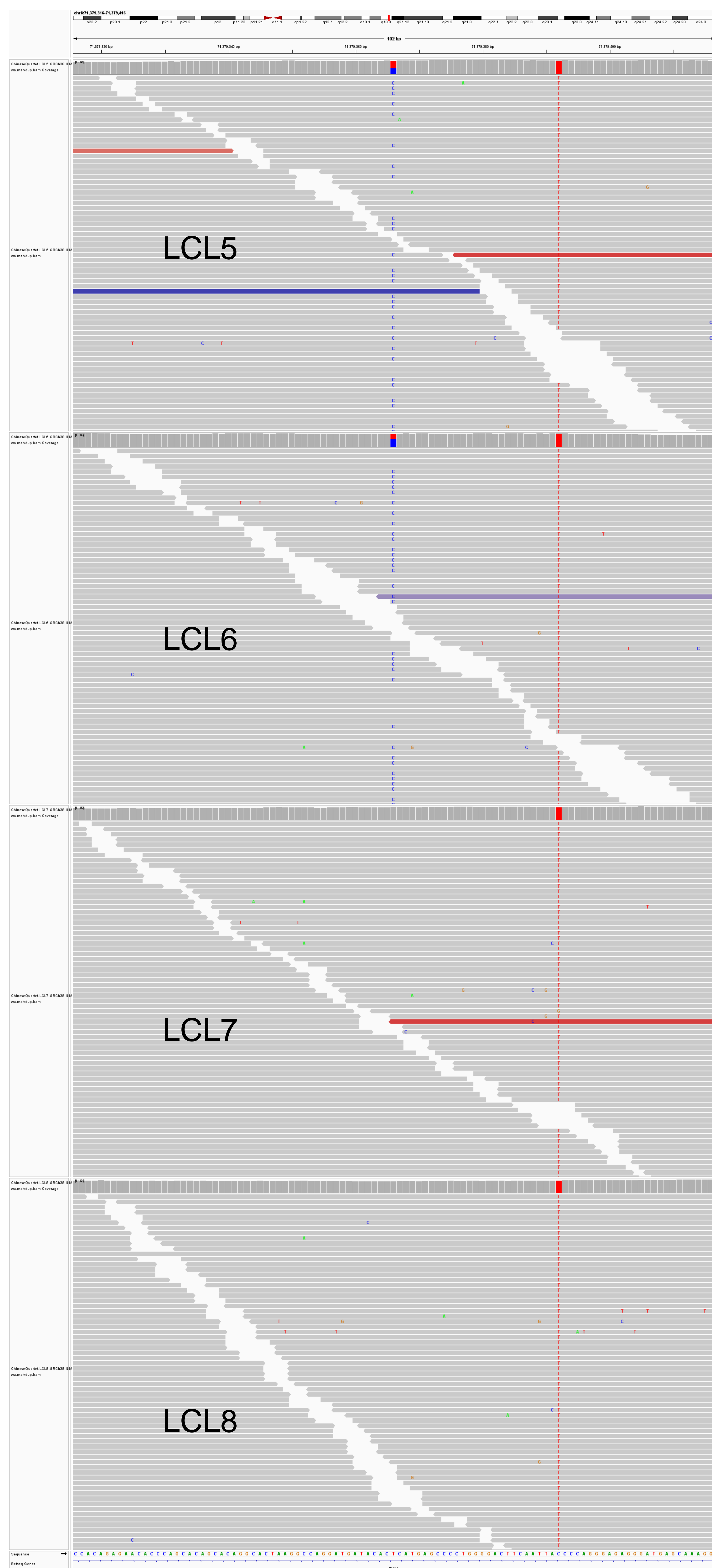


Illumina reads

# POS:chr8:71379366 Report DeNovo mutation by ILM

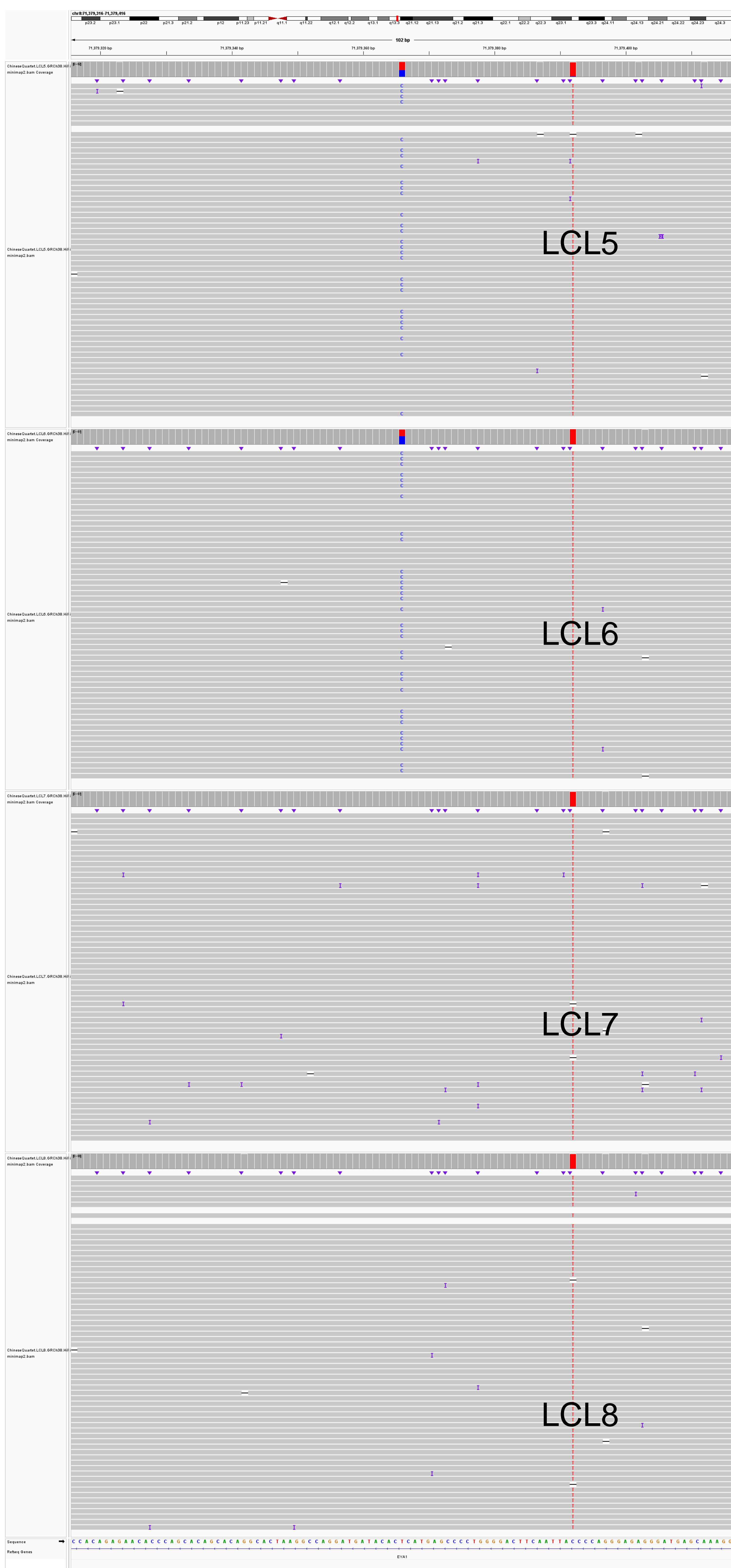


HiFi reads

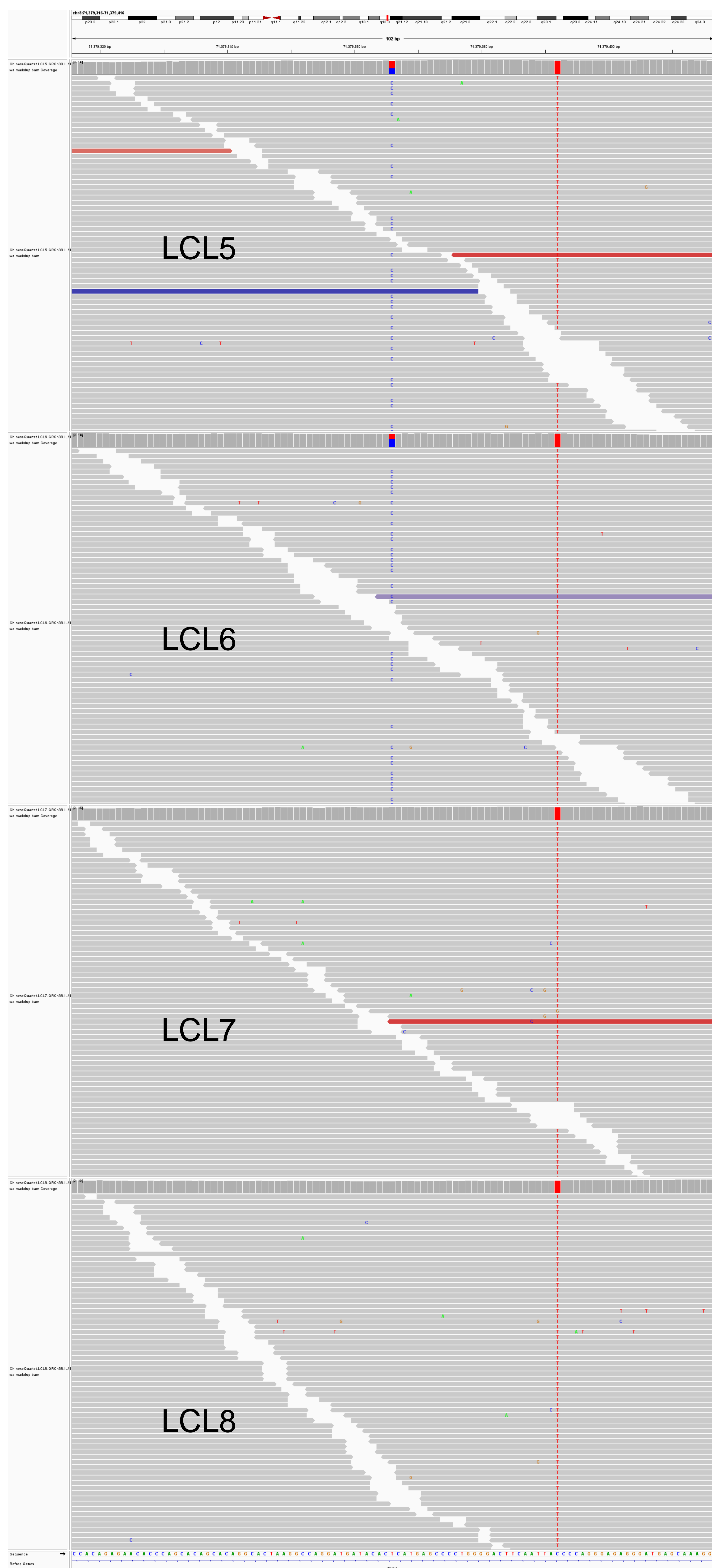


Illumina reads

# POS:chr8:71379366 Report DeNovo mutation by HiFi



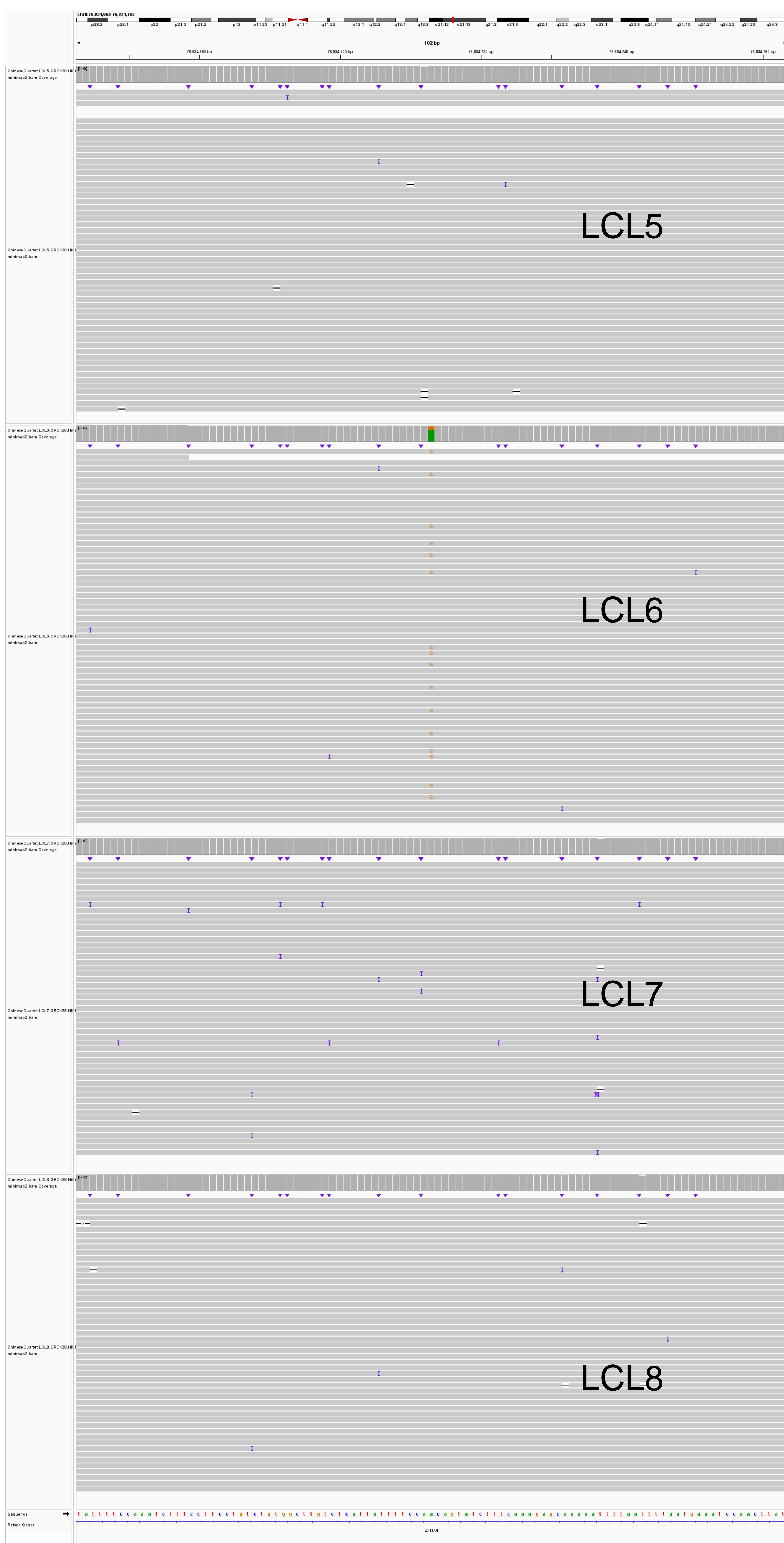
HiFi reads



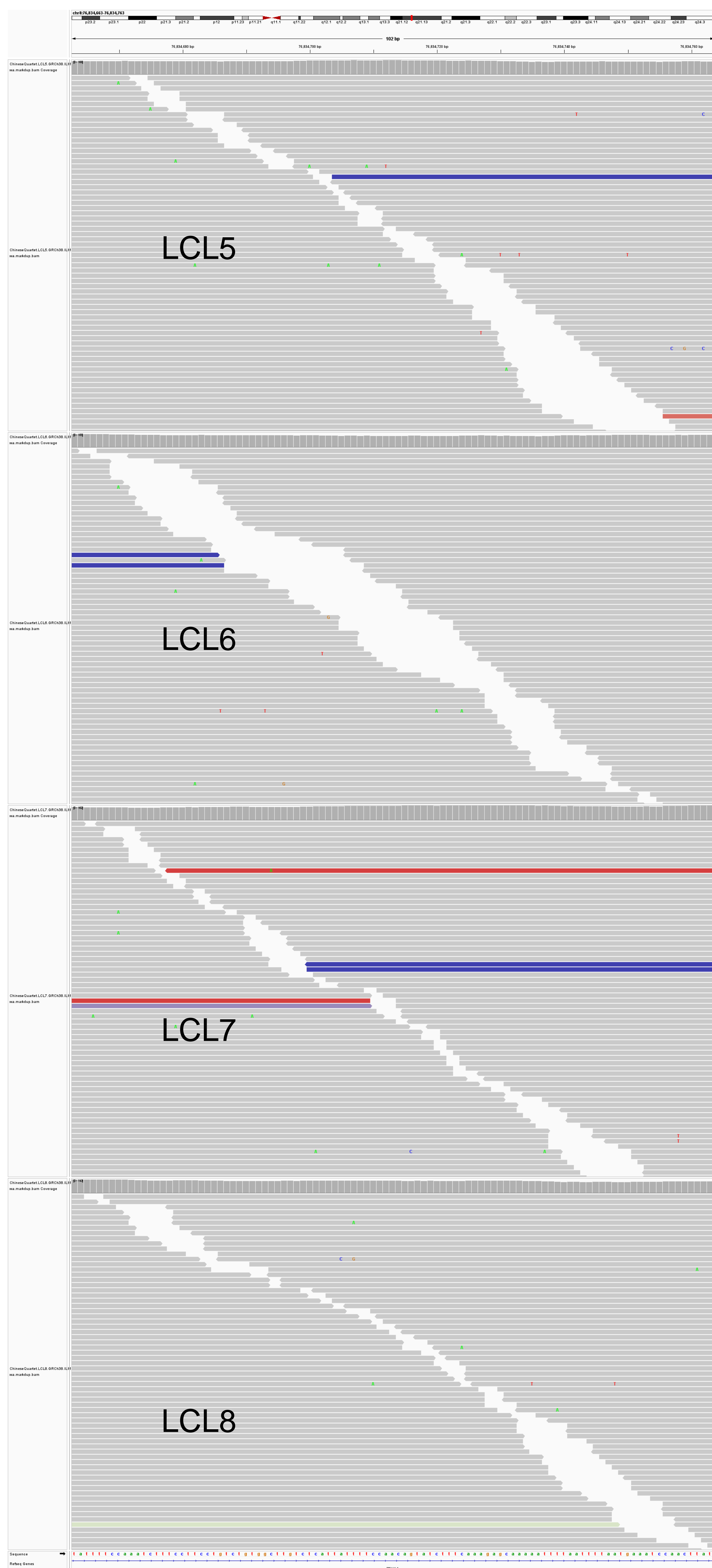
Illumina reads



# POS:chr8:76834713 Report Somatic mutation by HiFi

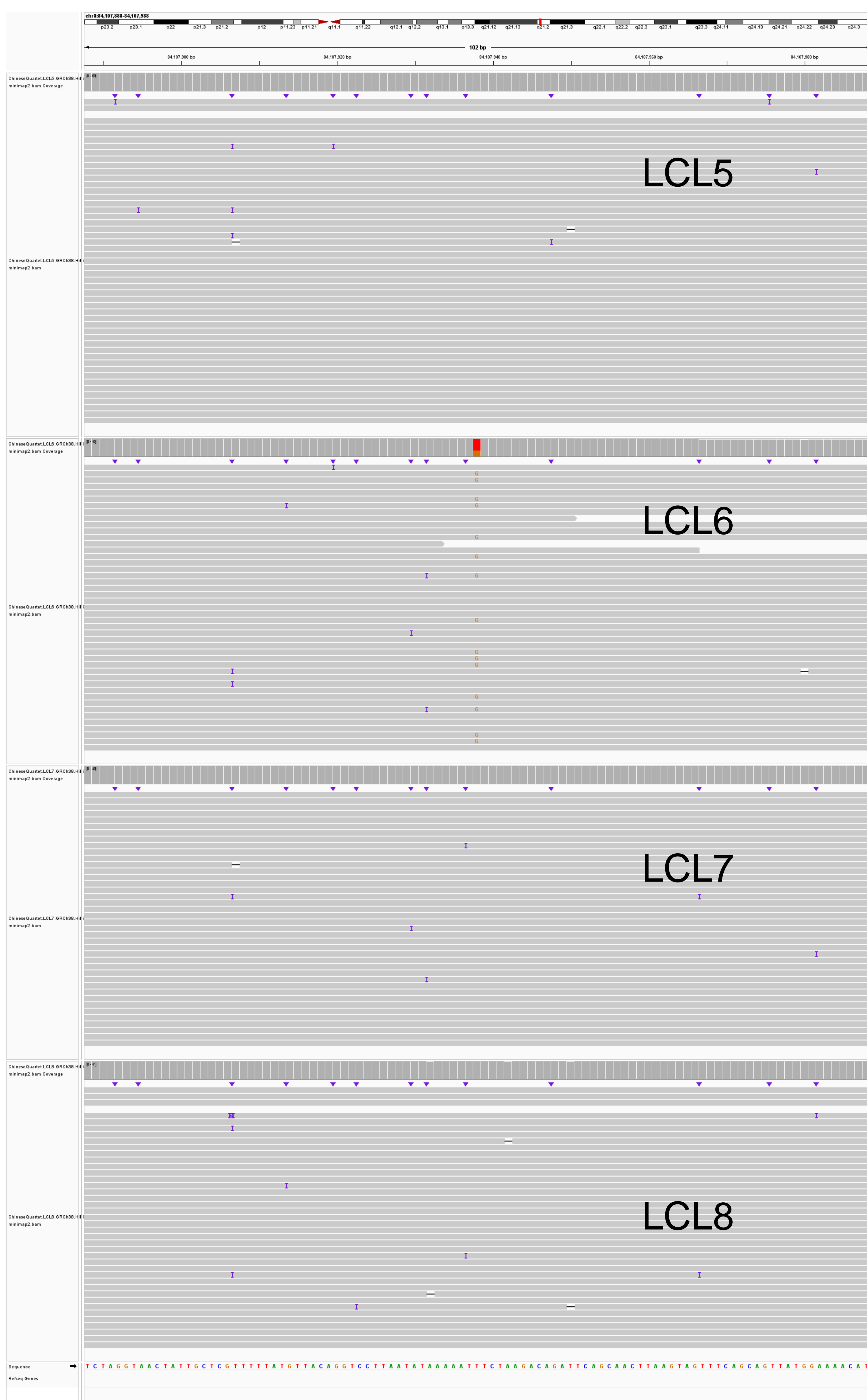


HiFi reads

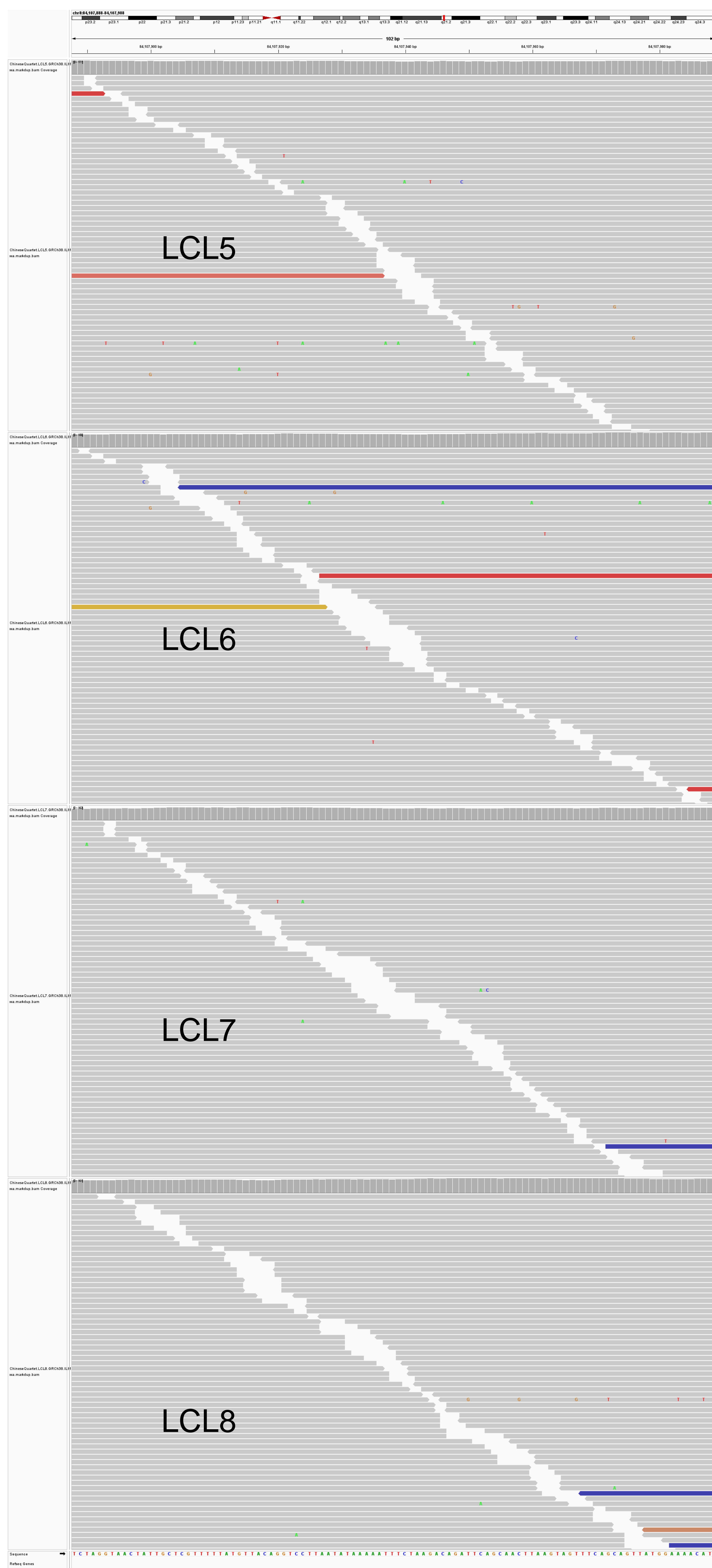


Illumina reads

# POS:chr8:84107938 Report Somatic mutation by HiFi

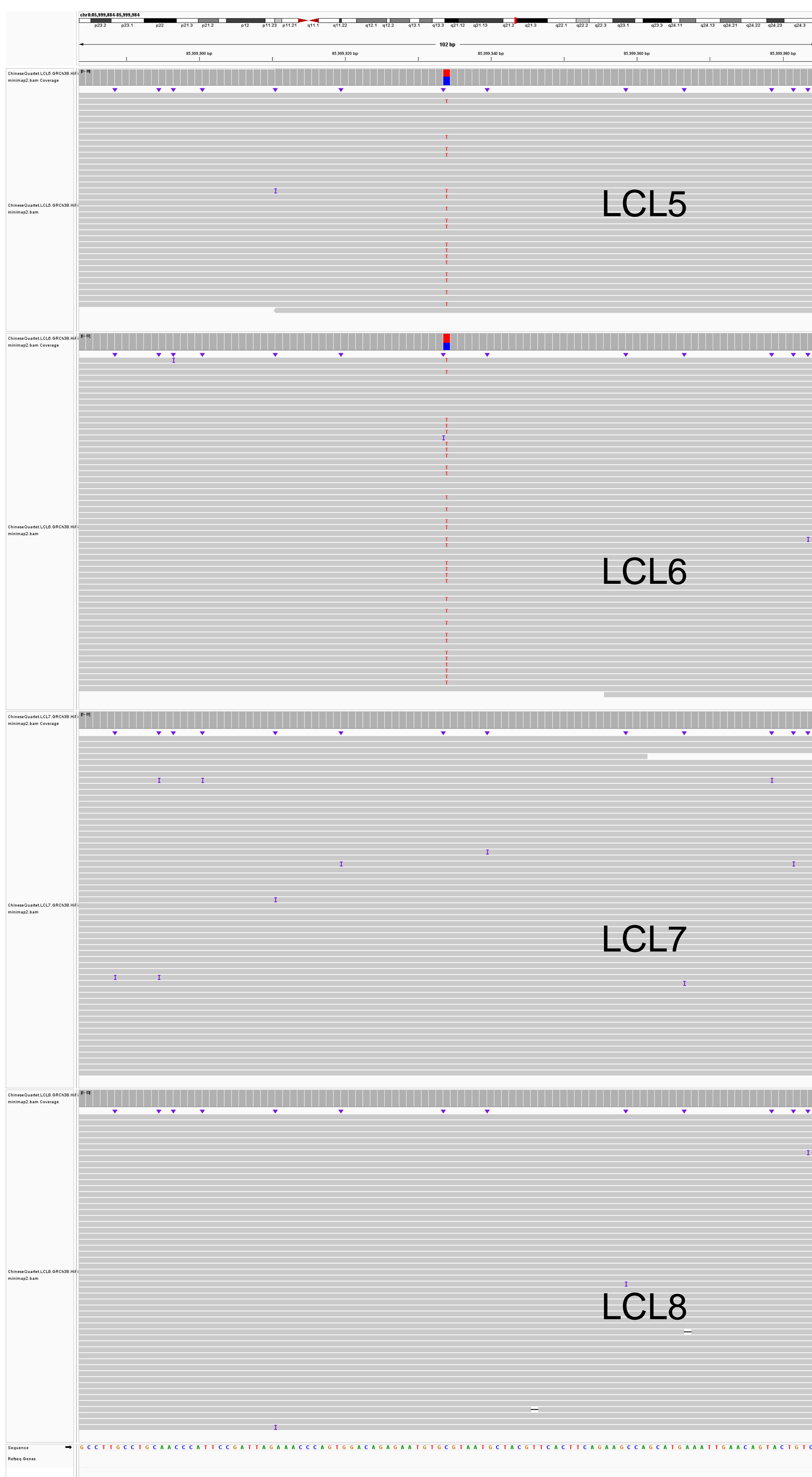


HiFi reads

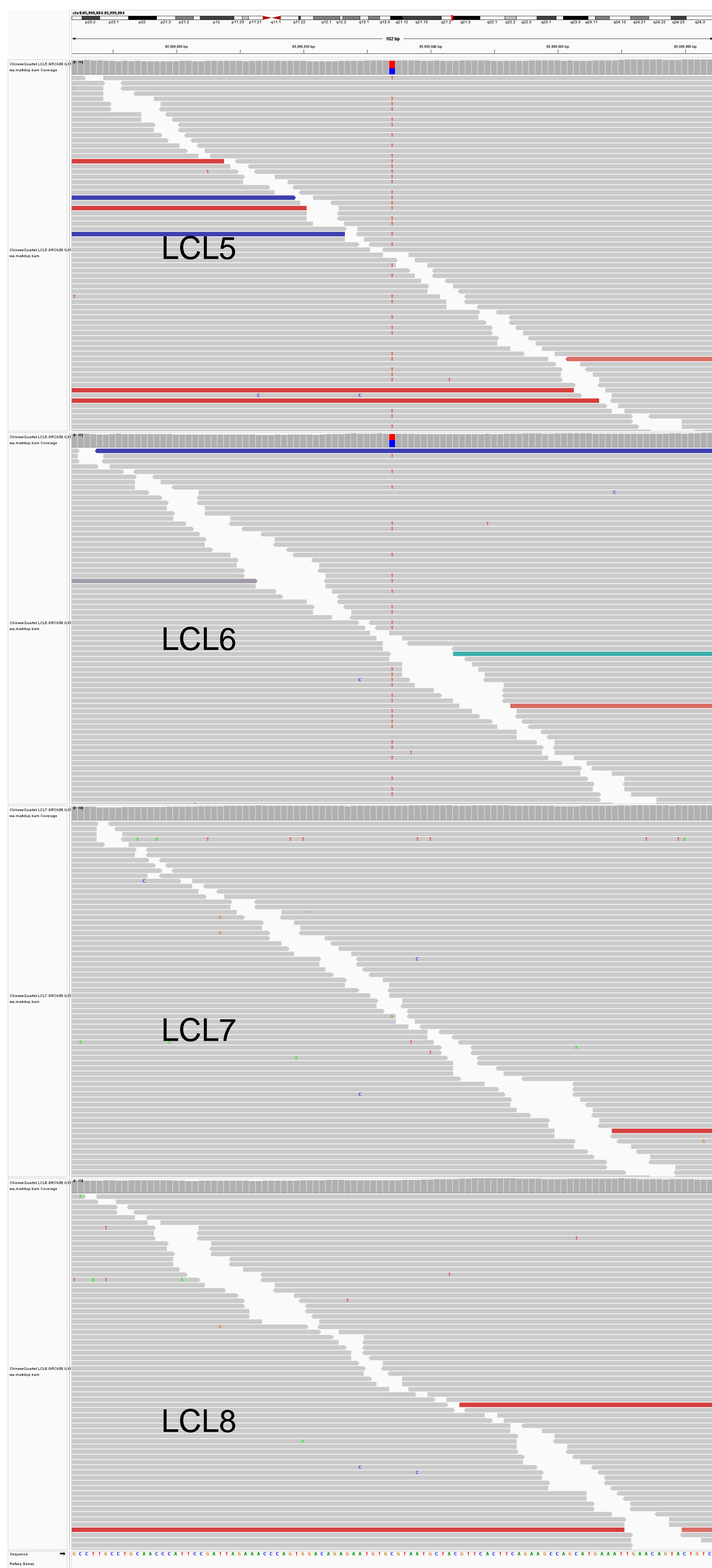


Illumina reads

# POS:chr8:85999934 Report DeNovo mutation by ILM

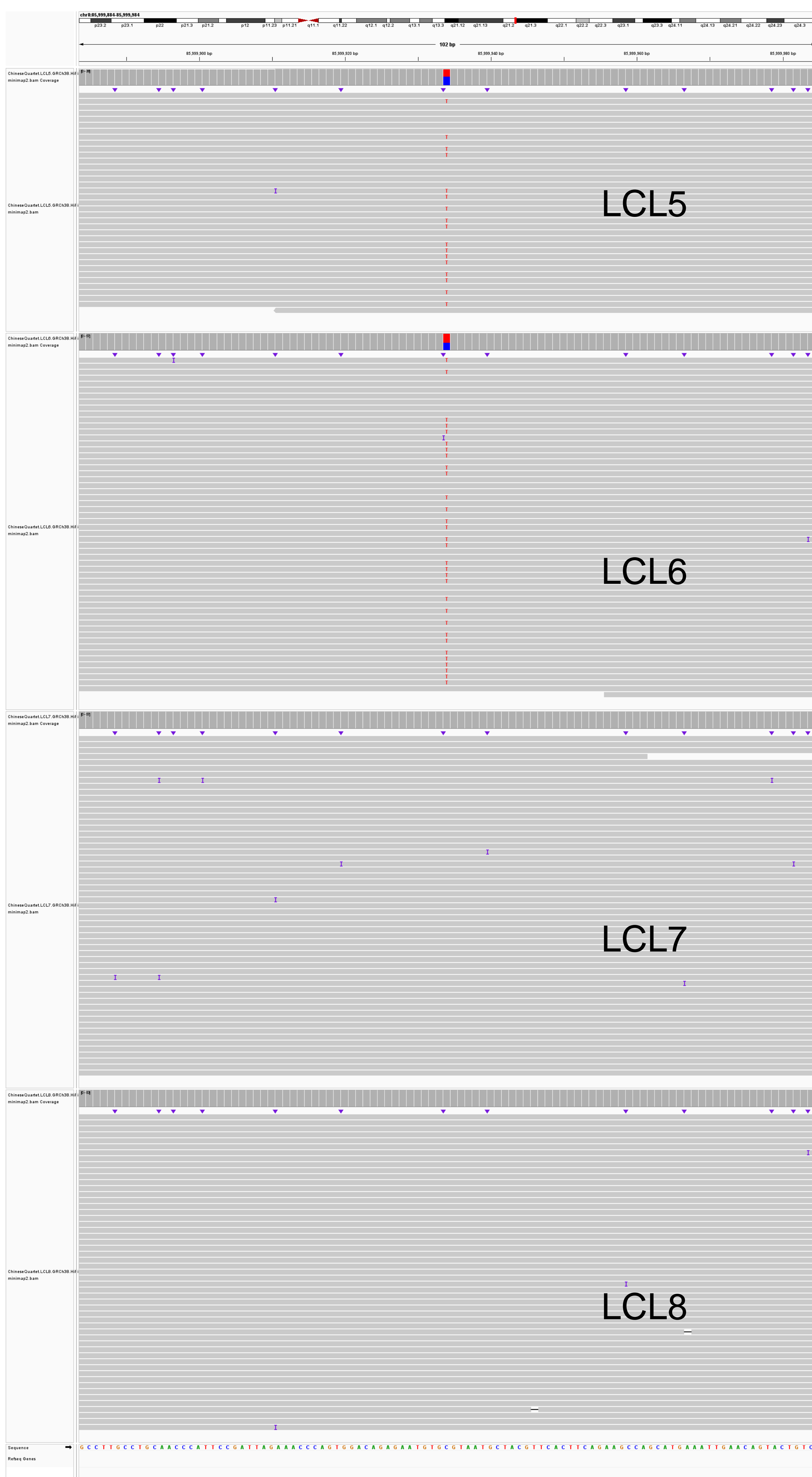


HiFi reads

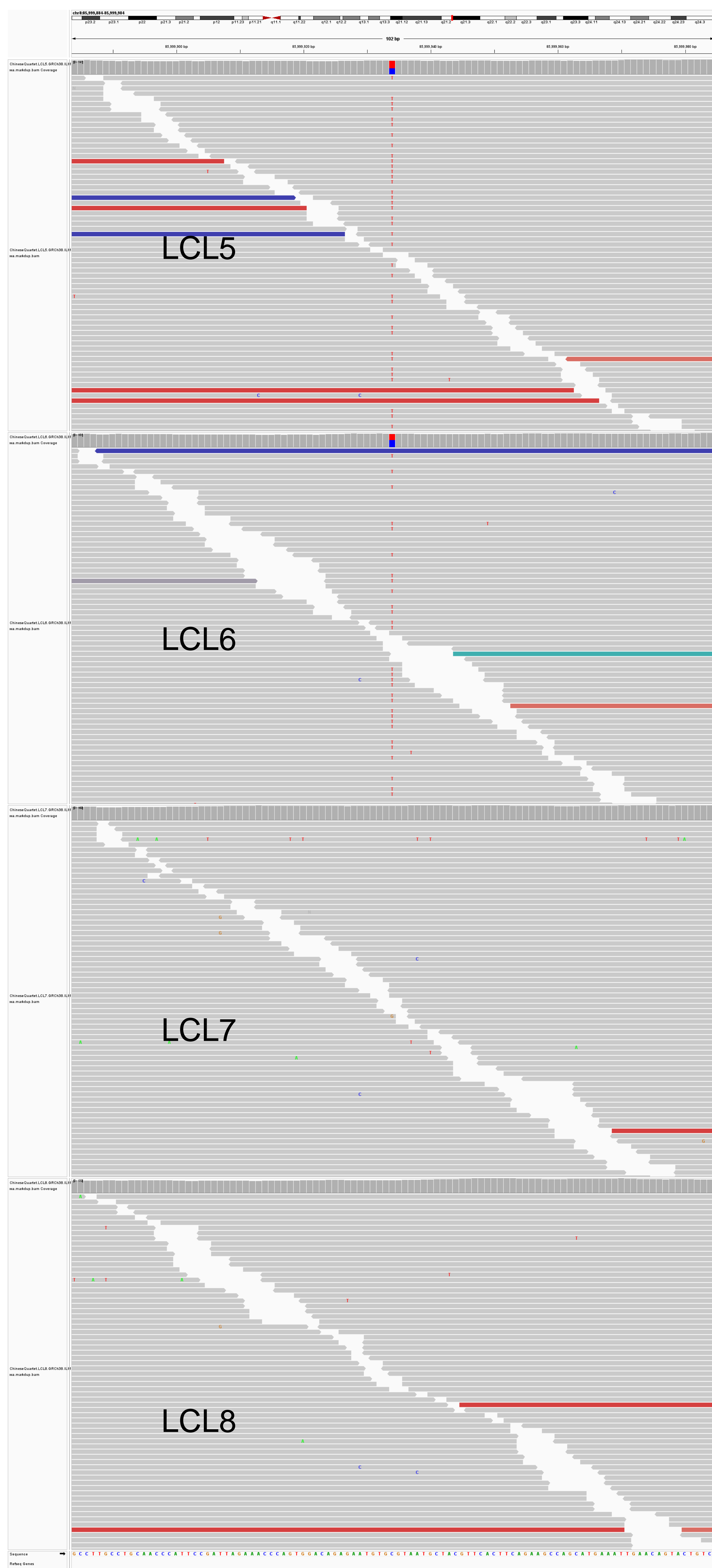


Illumina reads

# POS:chr8:85999934 Report DeNovo mutation by HiFi



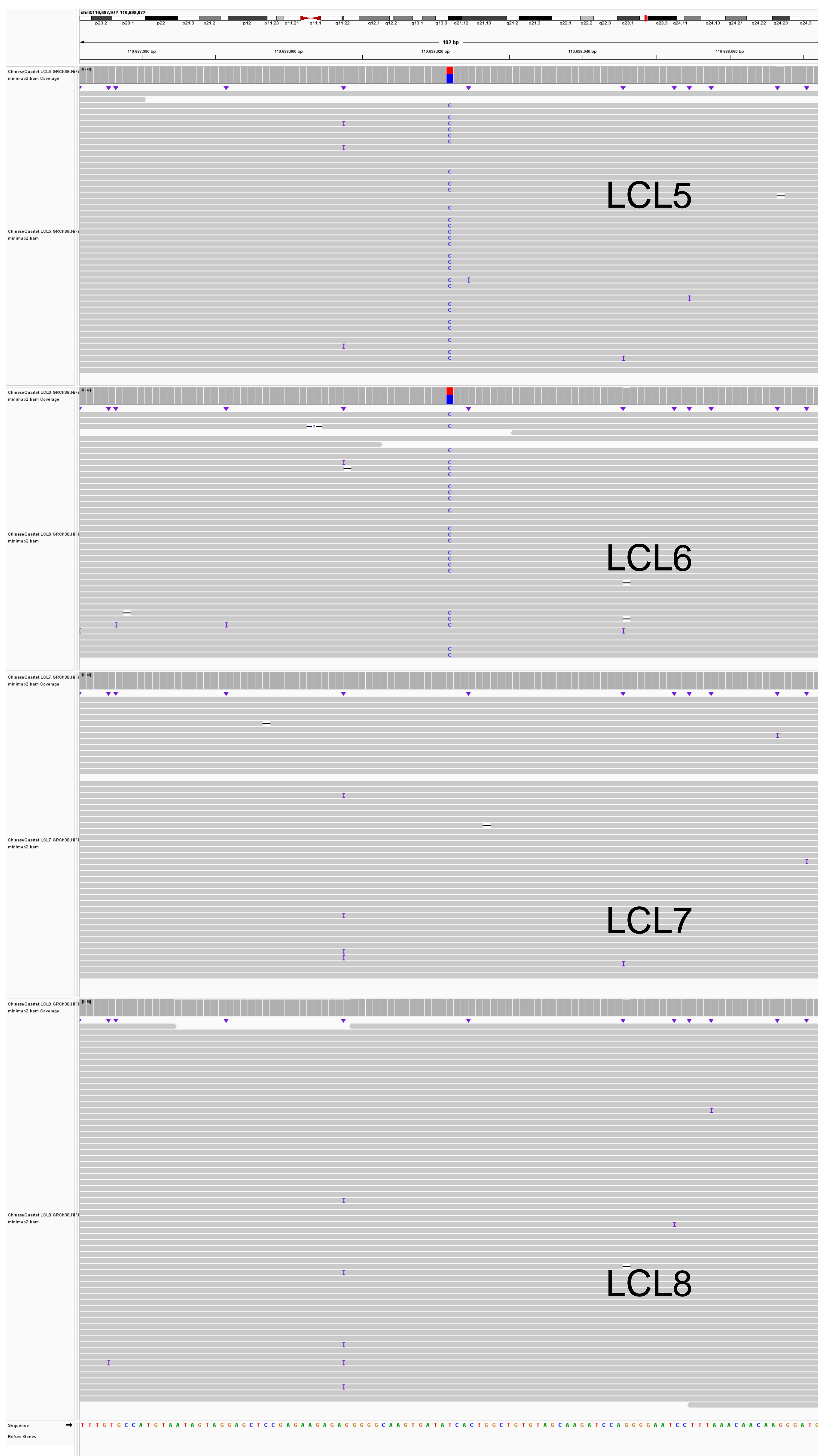
HiFi reads



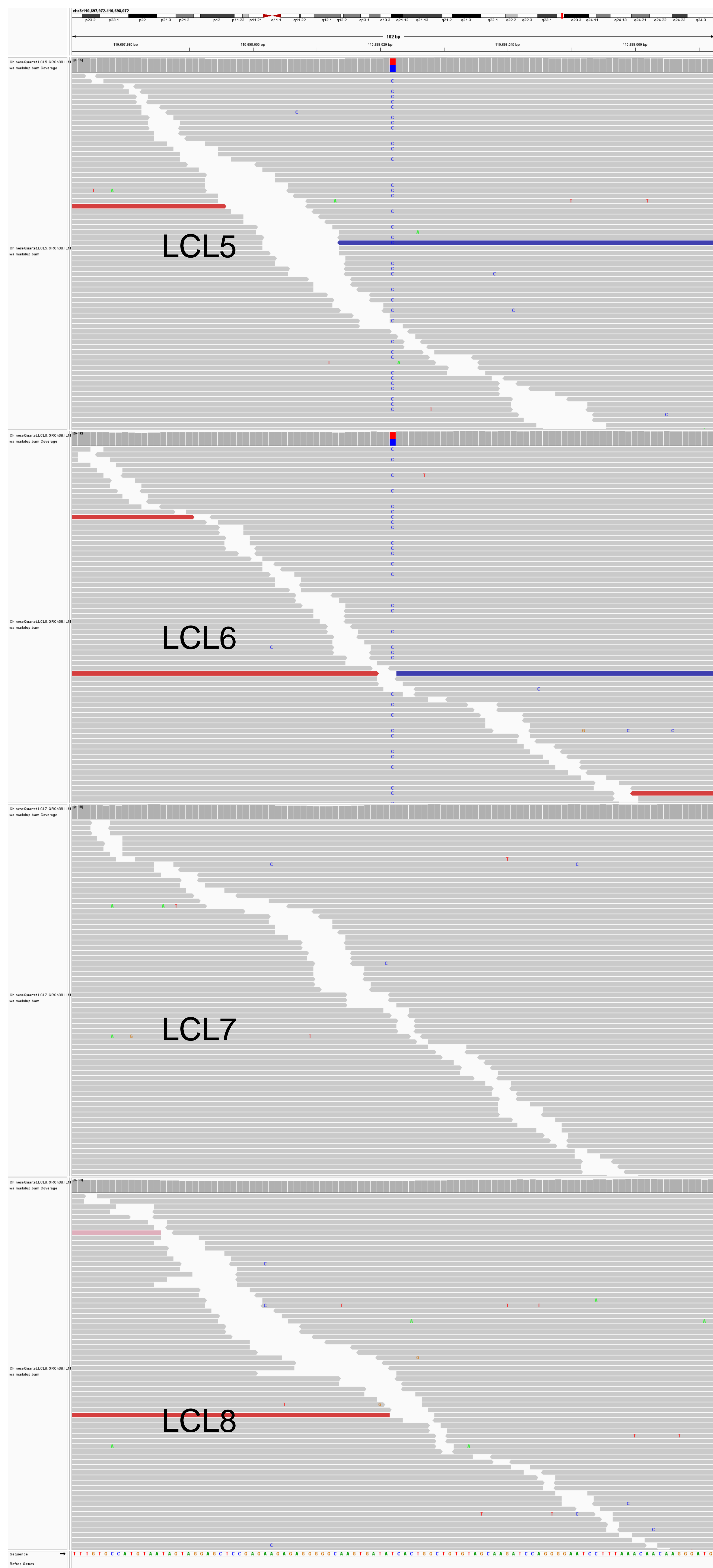
Illumina reads



# POS:chr8:110698022 Report DeNovo mutation by ILM

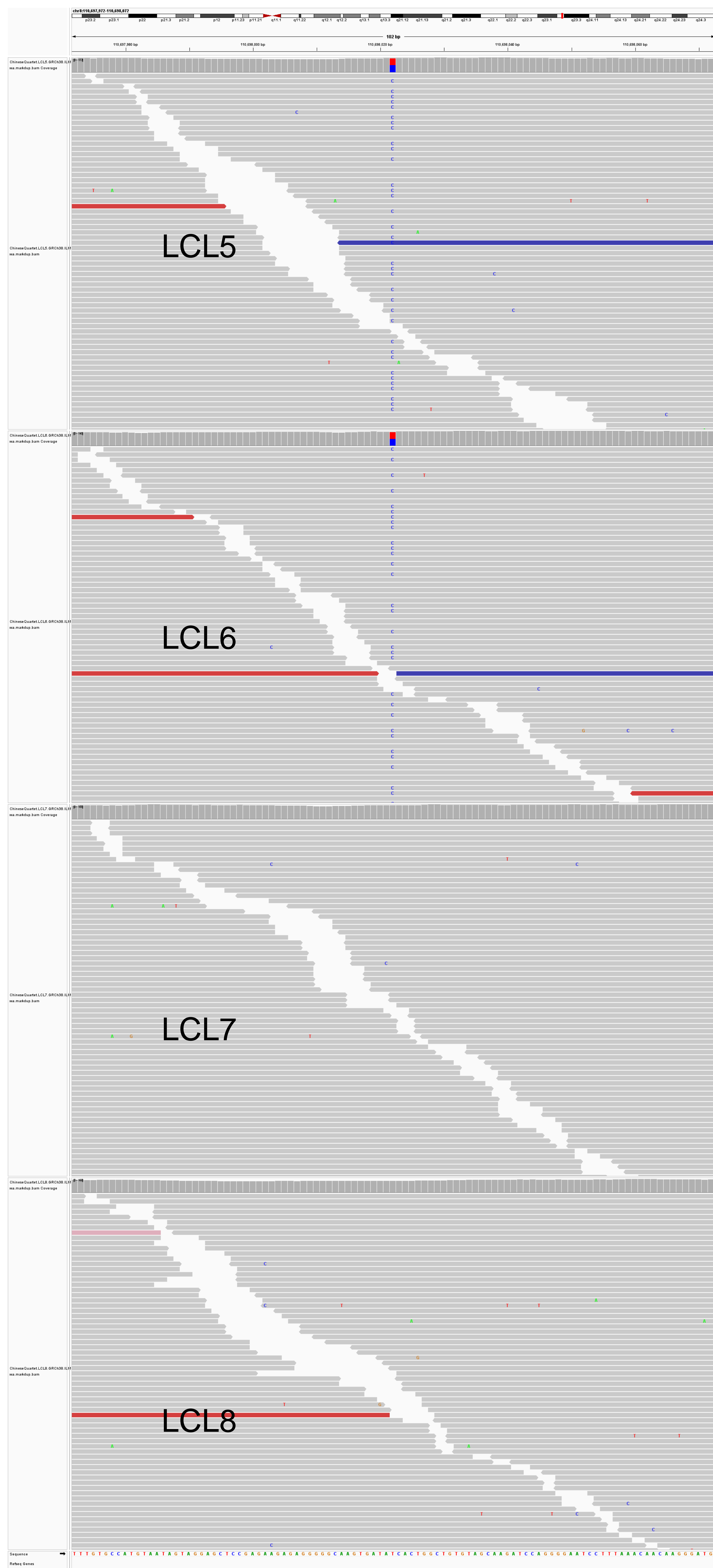
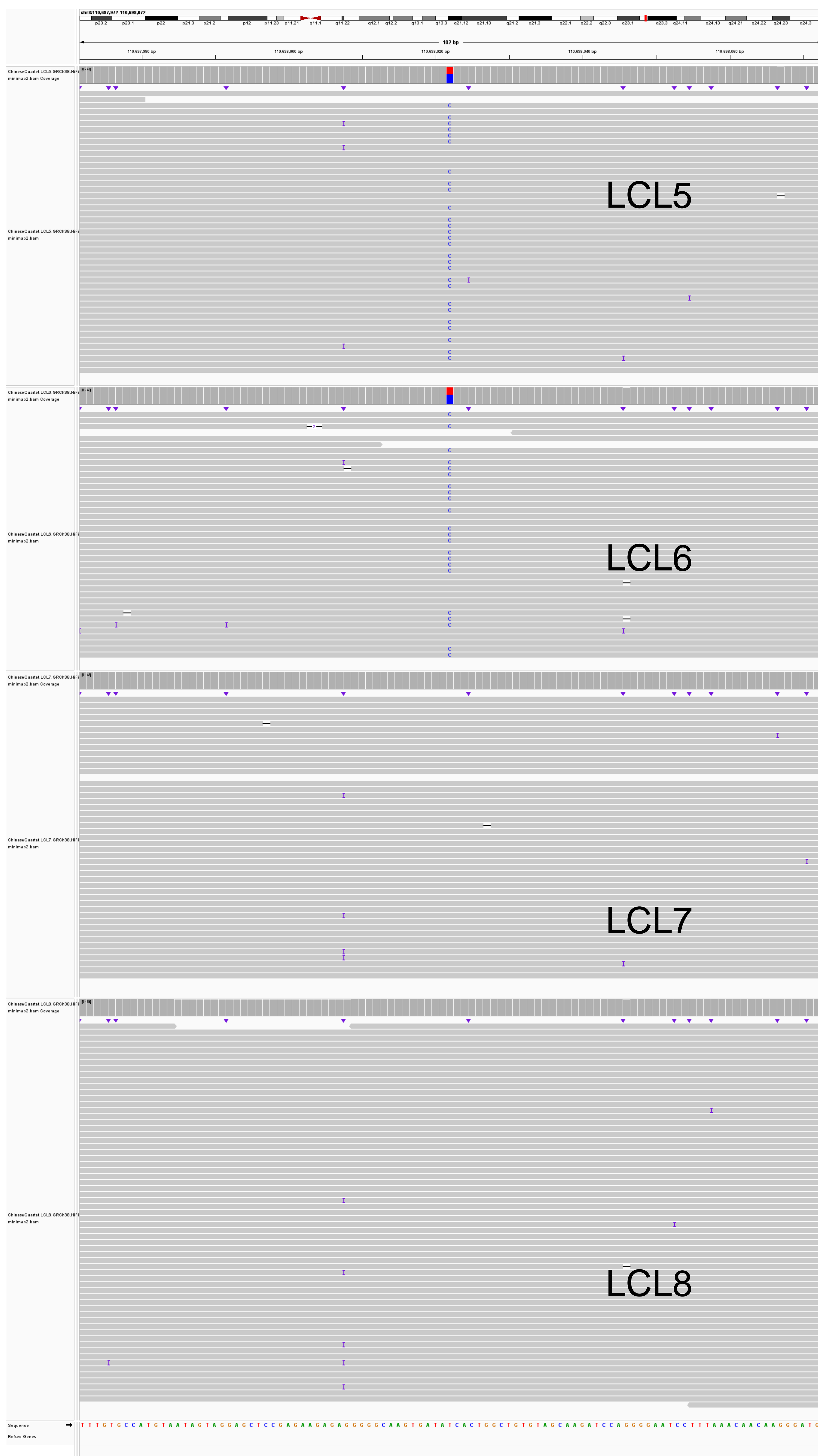


HiFi reads



Illumina reads

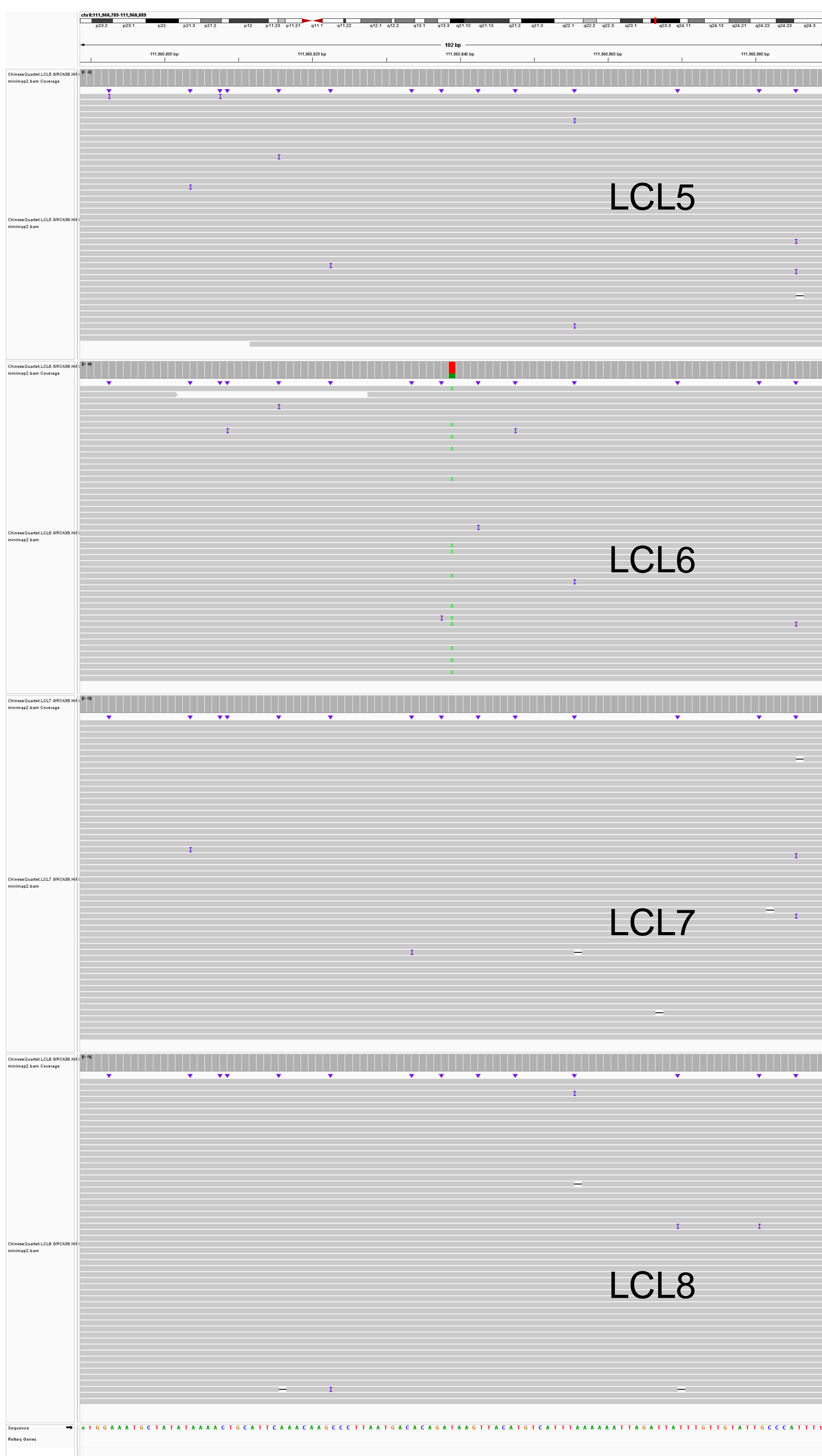
# POS:chr8:110698022 Report DeNovo mutation by HiFi



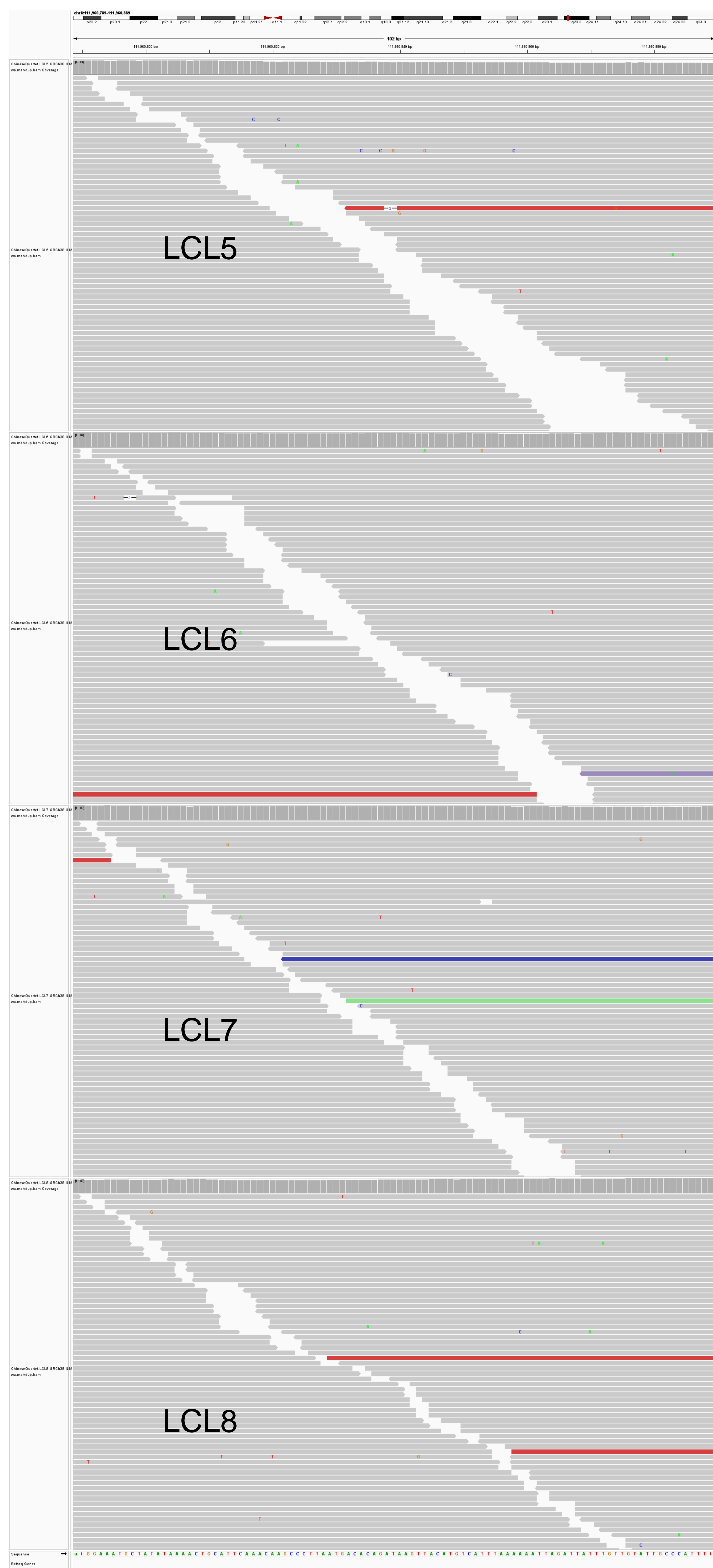
HiFi reads

Illumina reads

# POS:chr8:111960839 Report Somatic mutation by HiFi

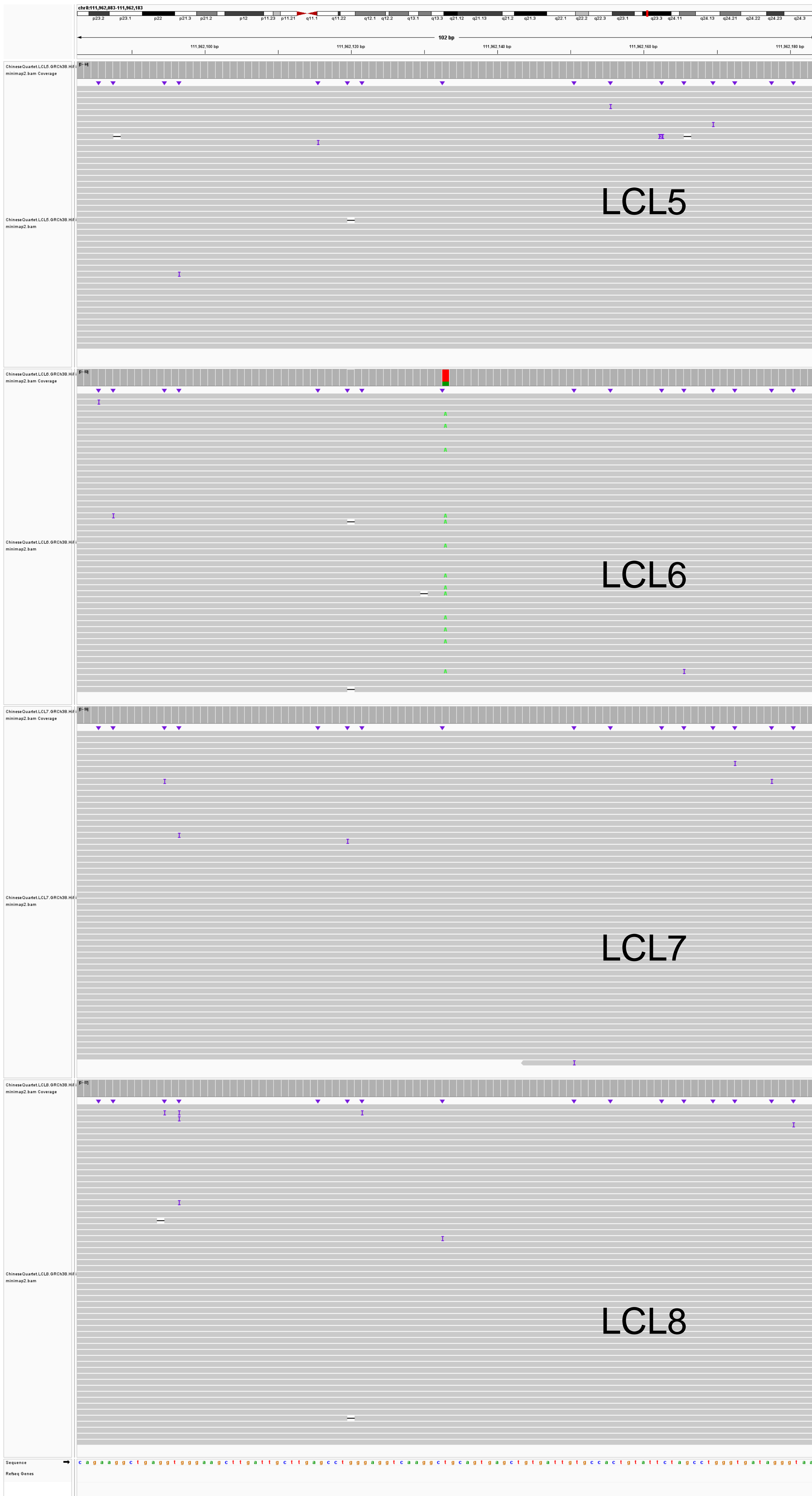


HiFi reads

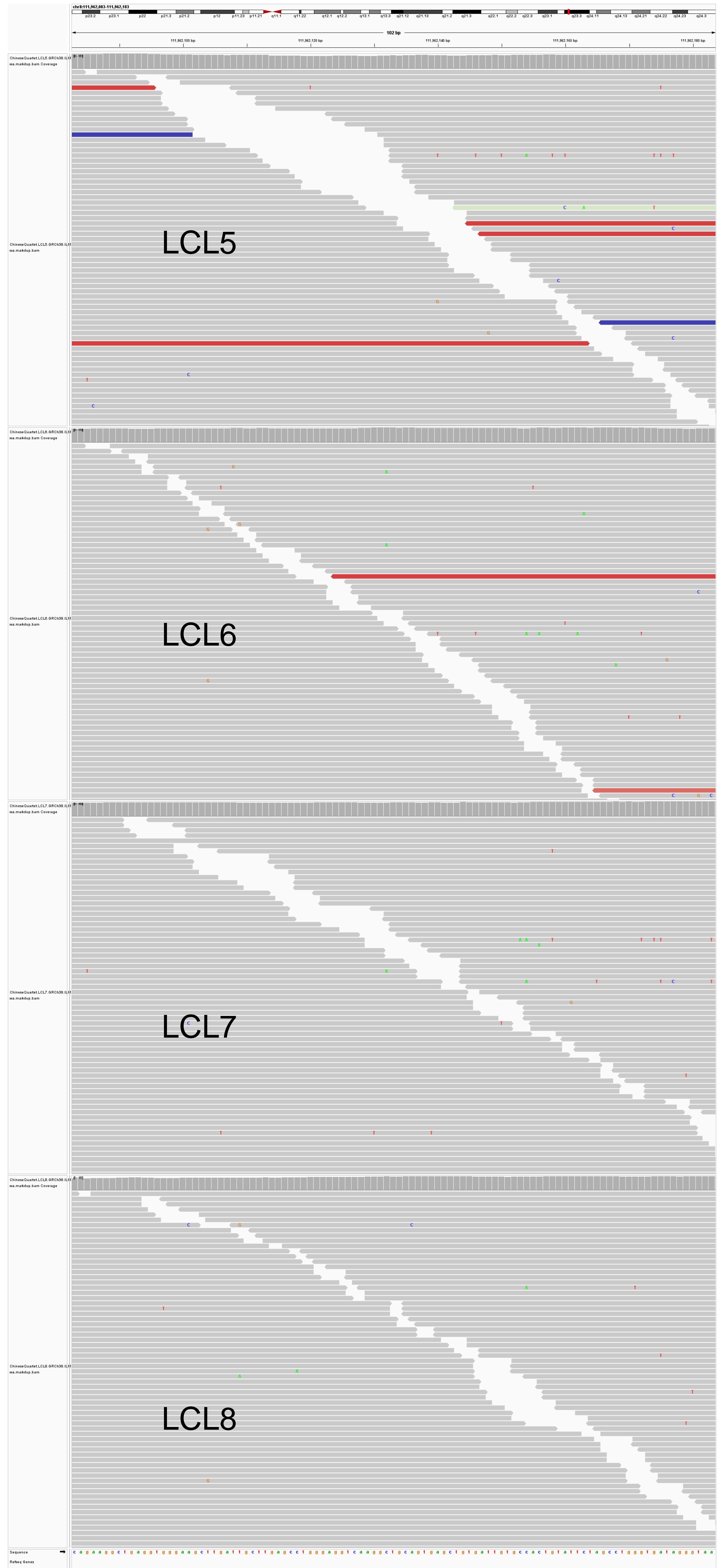


Illumina reads

POS:chr8:111962133 Report Somatic mutation by HiFi



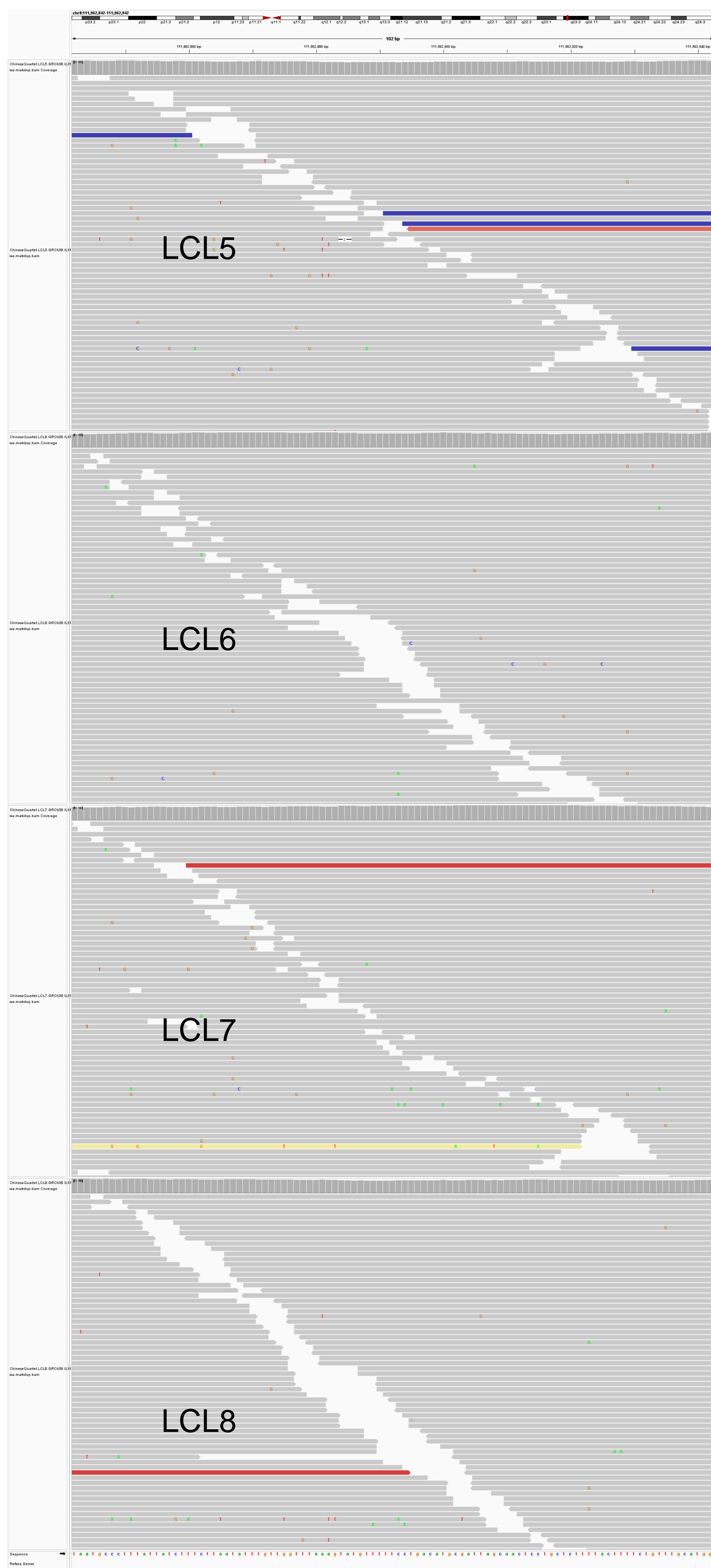
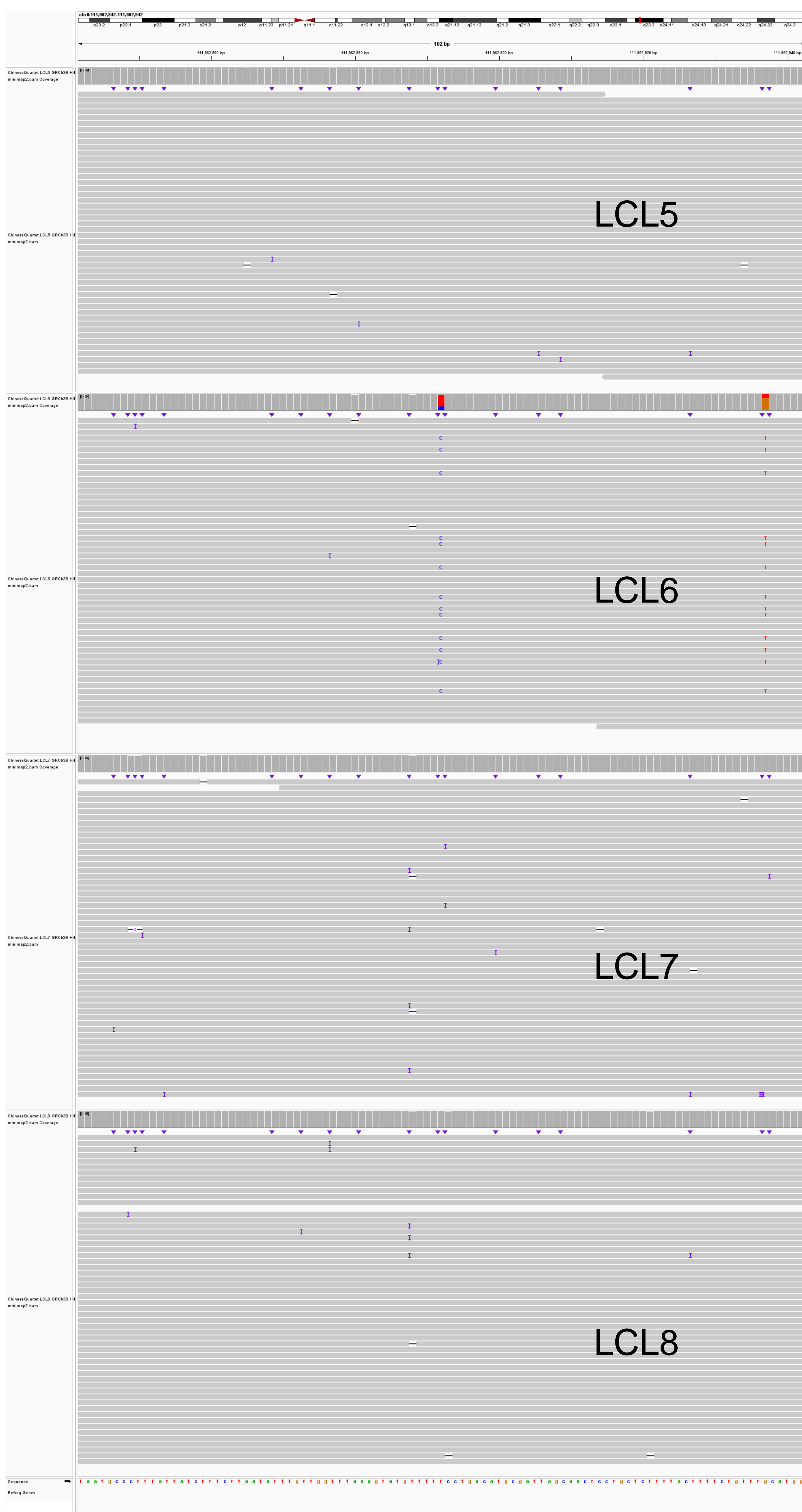
HiFi reads



Illumina reads



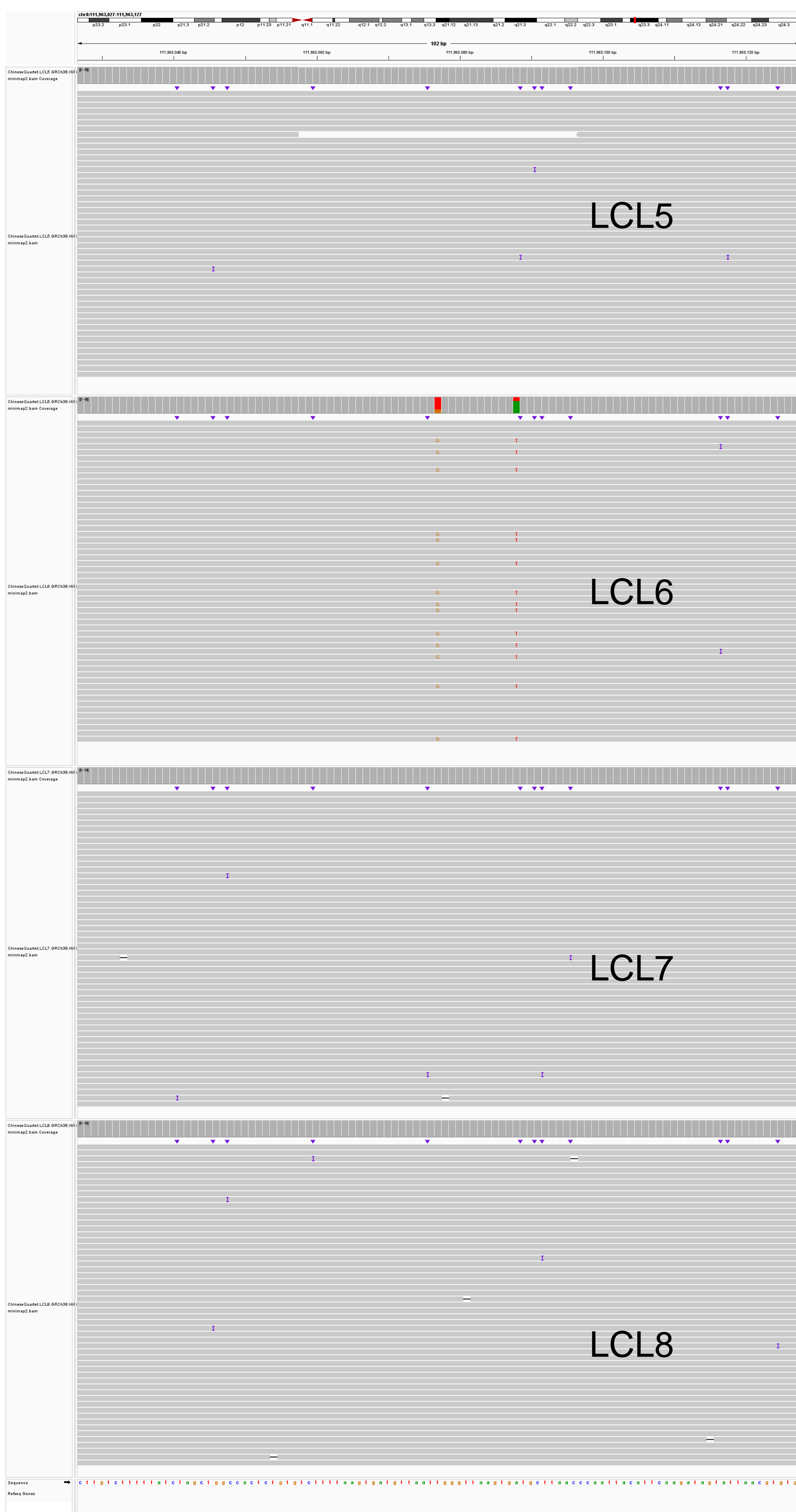
# POS:chr8:111962892 Report Somatic mutation by HiFi



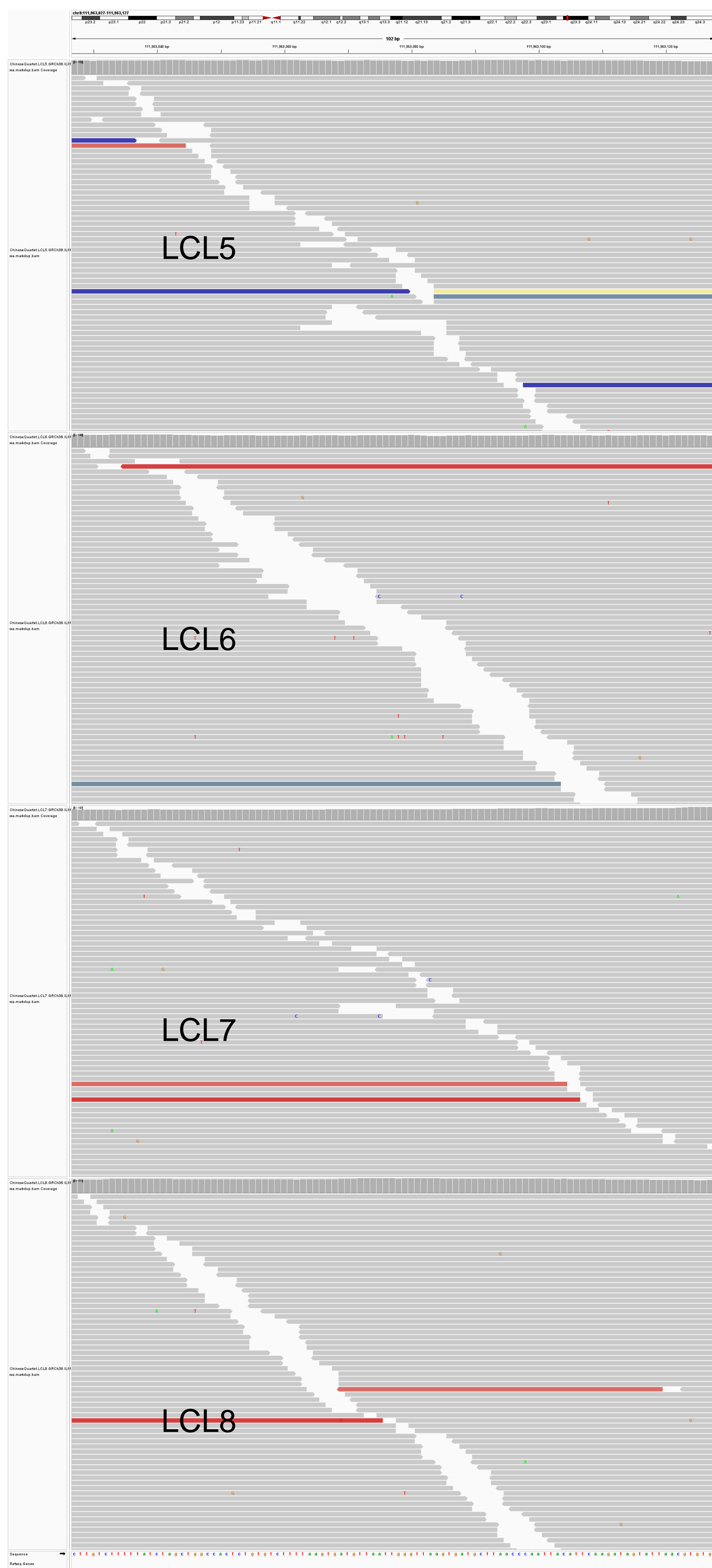
HiFi reads

Illumina reads

# POS:chr8:111963077 Report Somatic mutation by HiFi

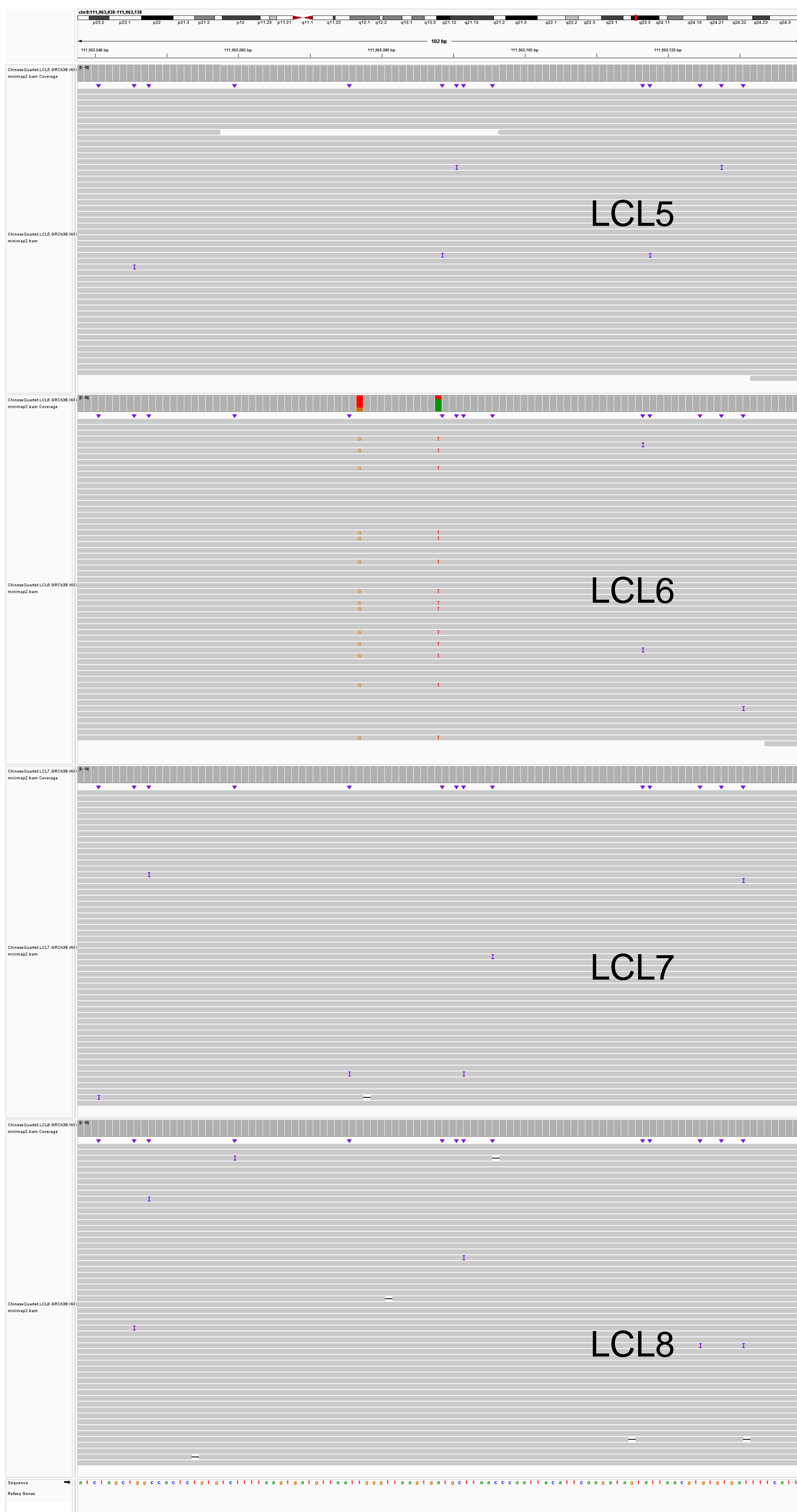


HiFi reads

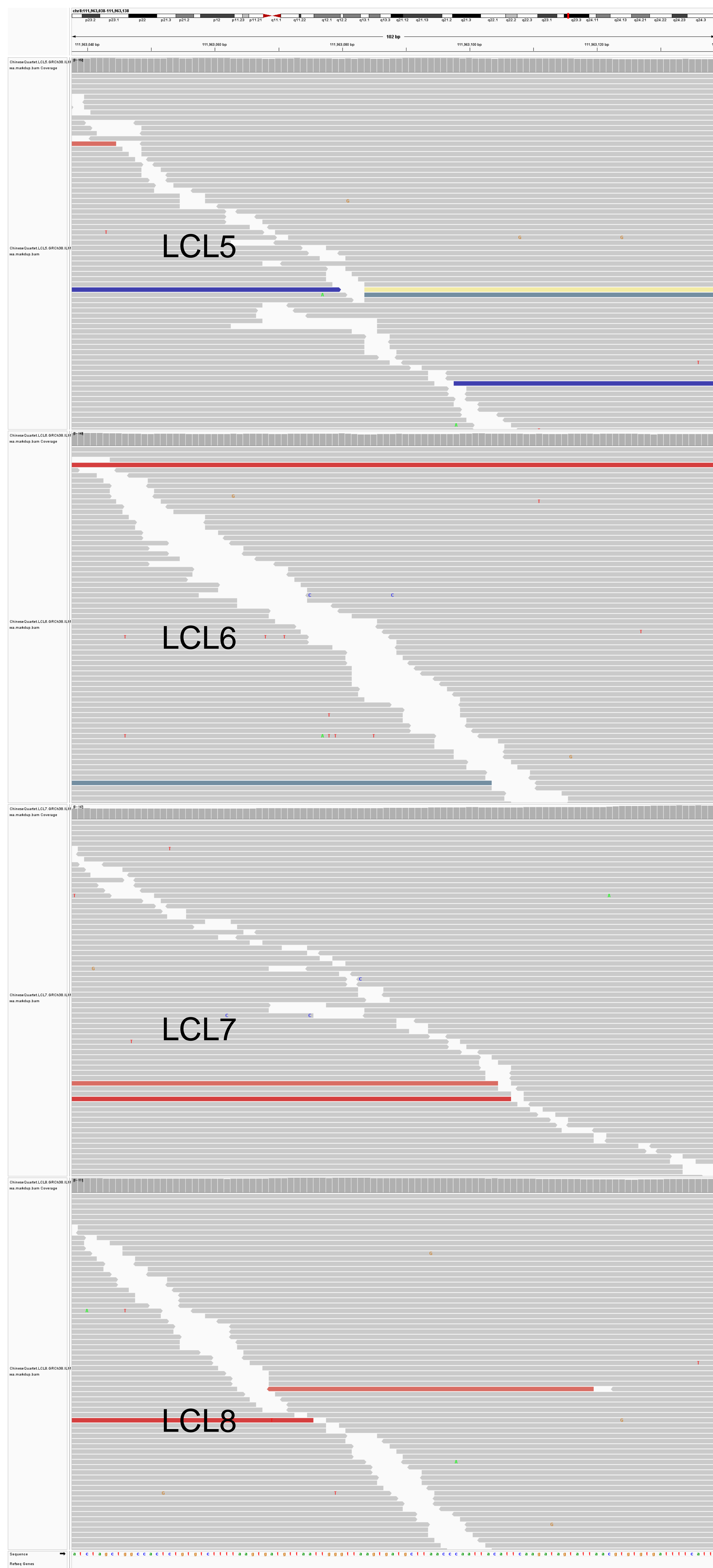


Illumina reads

# POS:chr8:111963088 Report Somatic mutation by HiFi

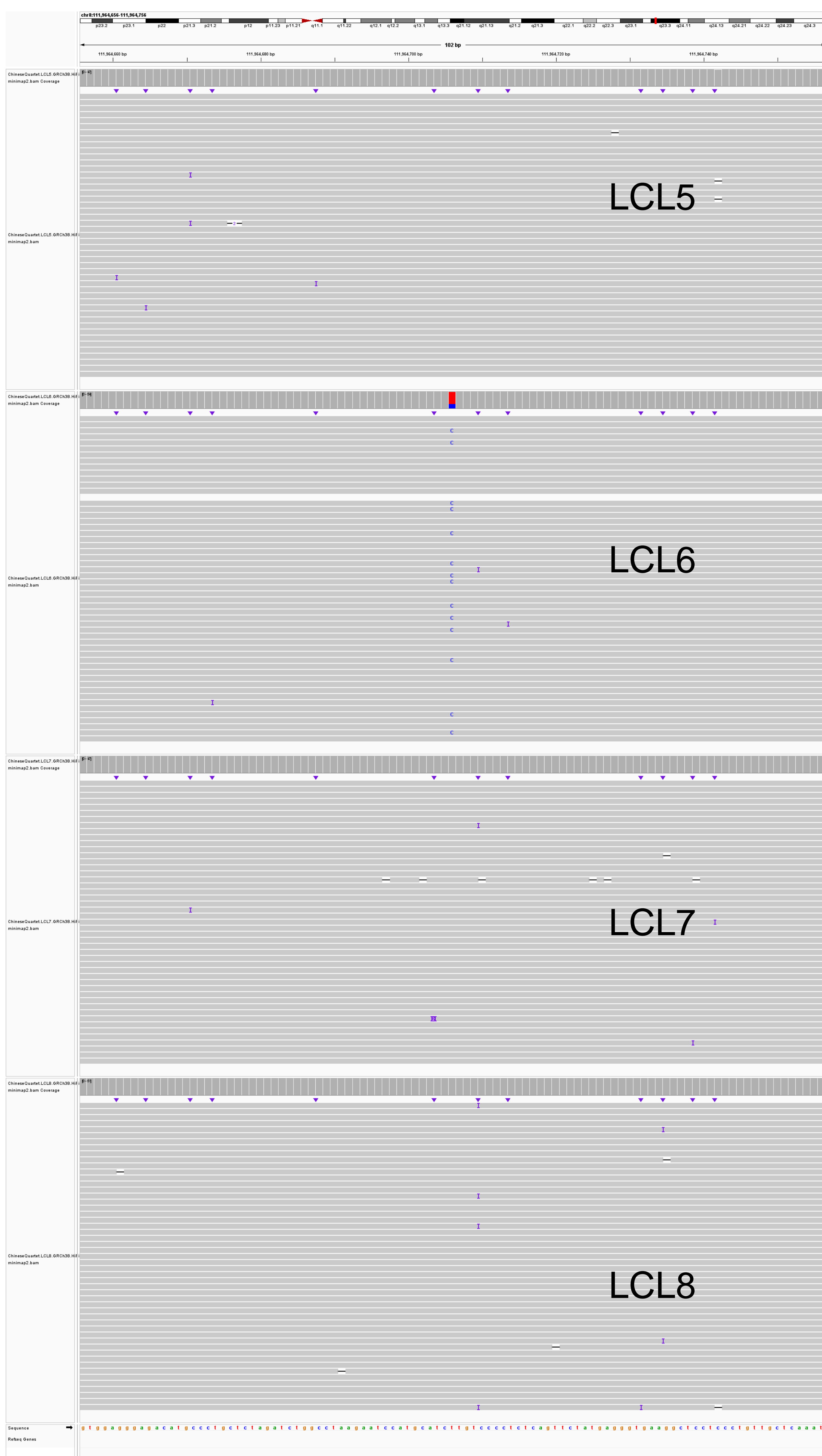


HiFi reads

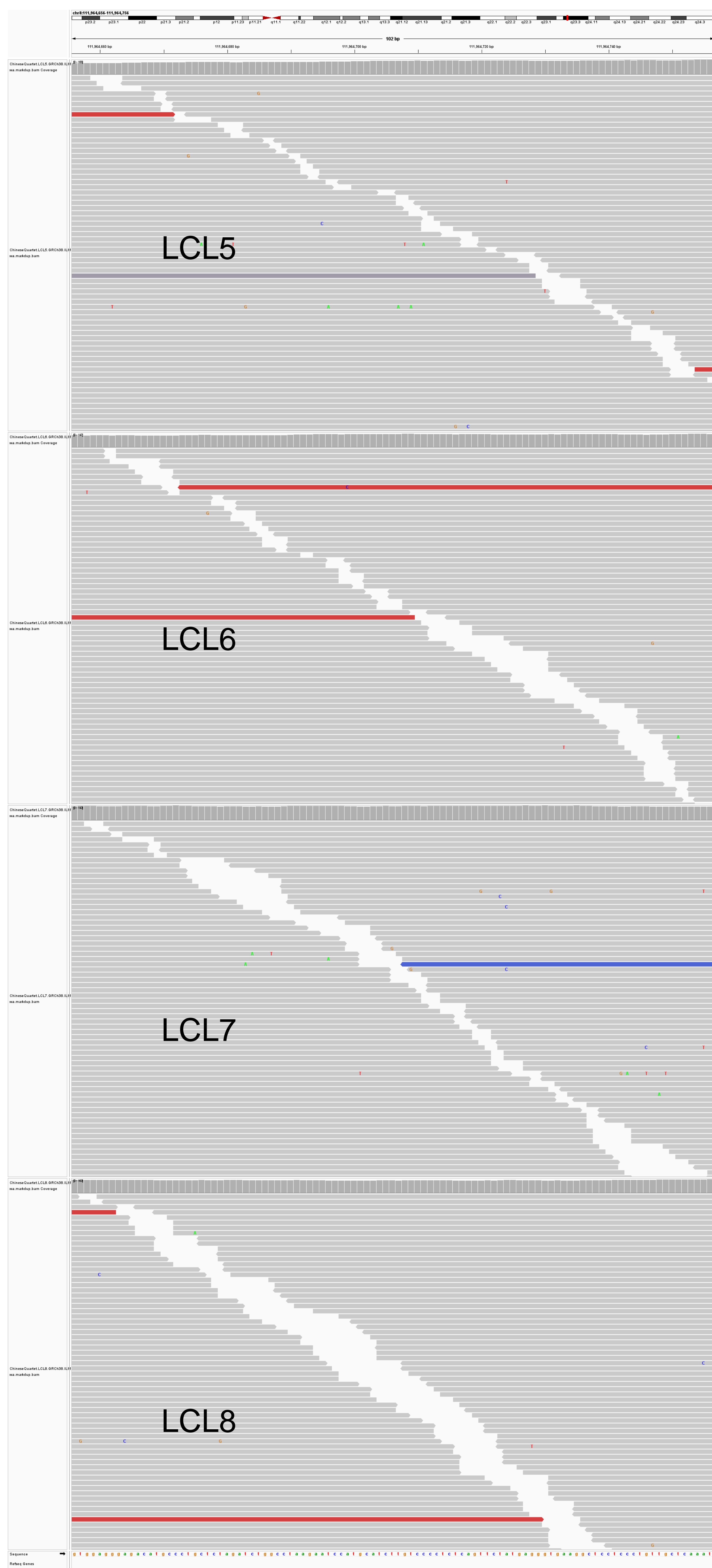


Illumina reads

# POS:chr8:111964706 Report Somatic mutation by HiFi



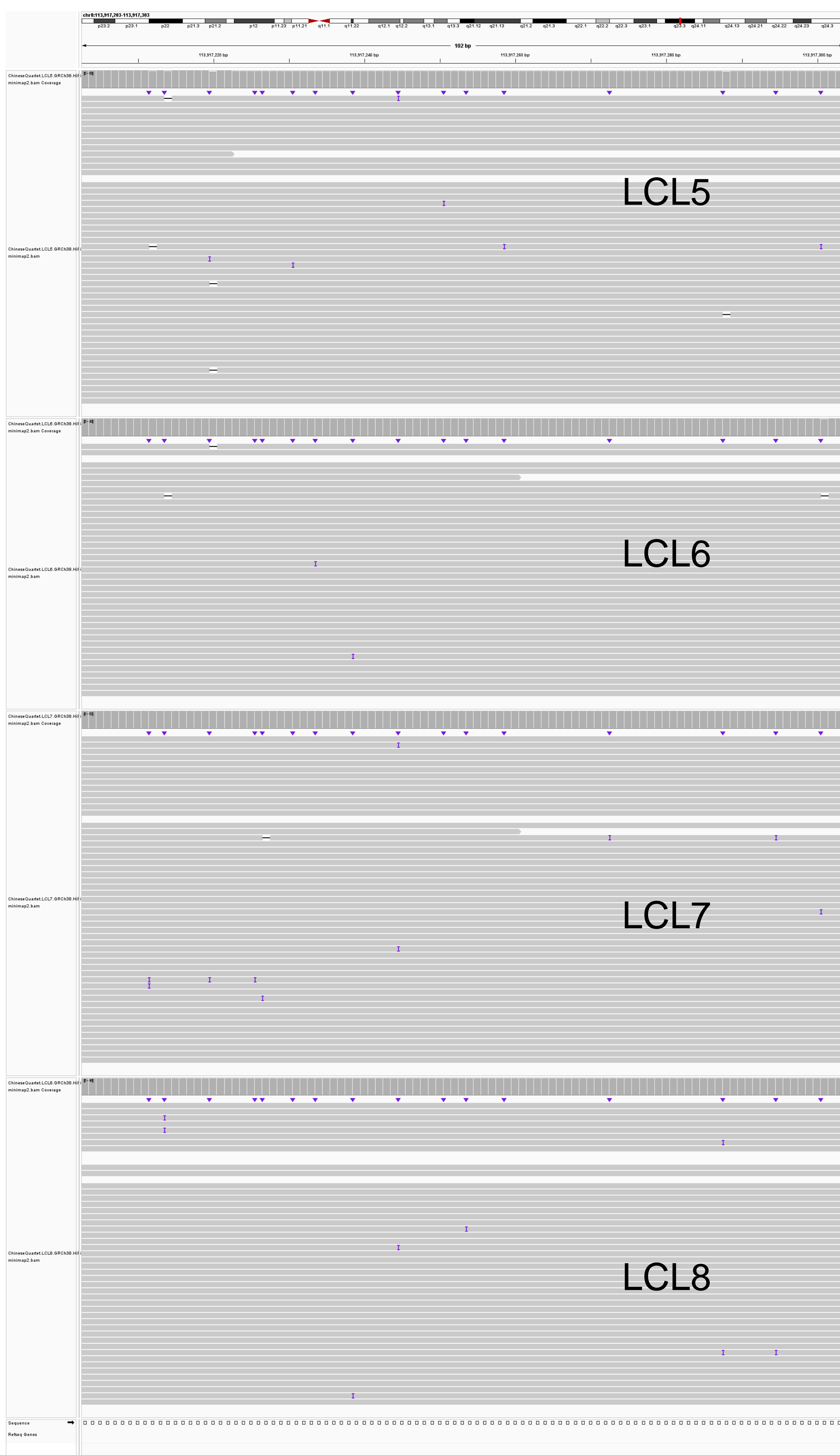
HiFi reads



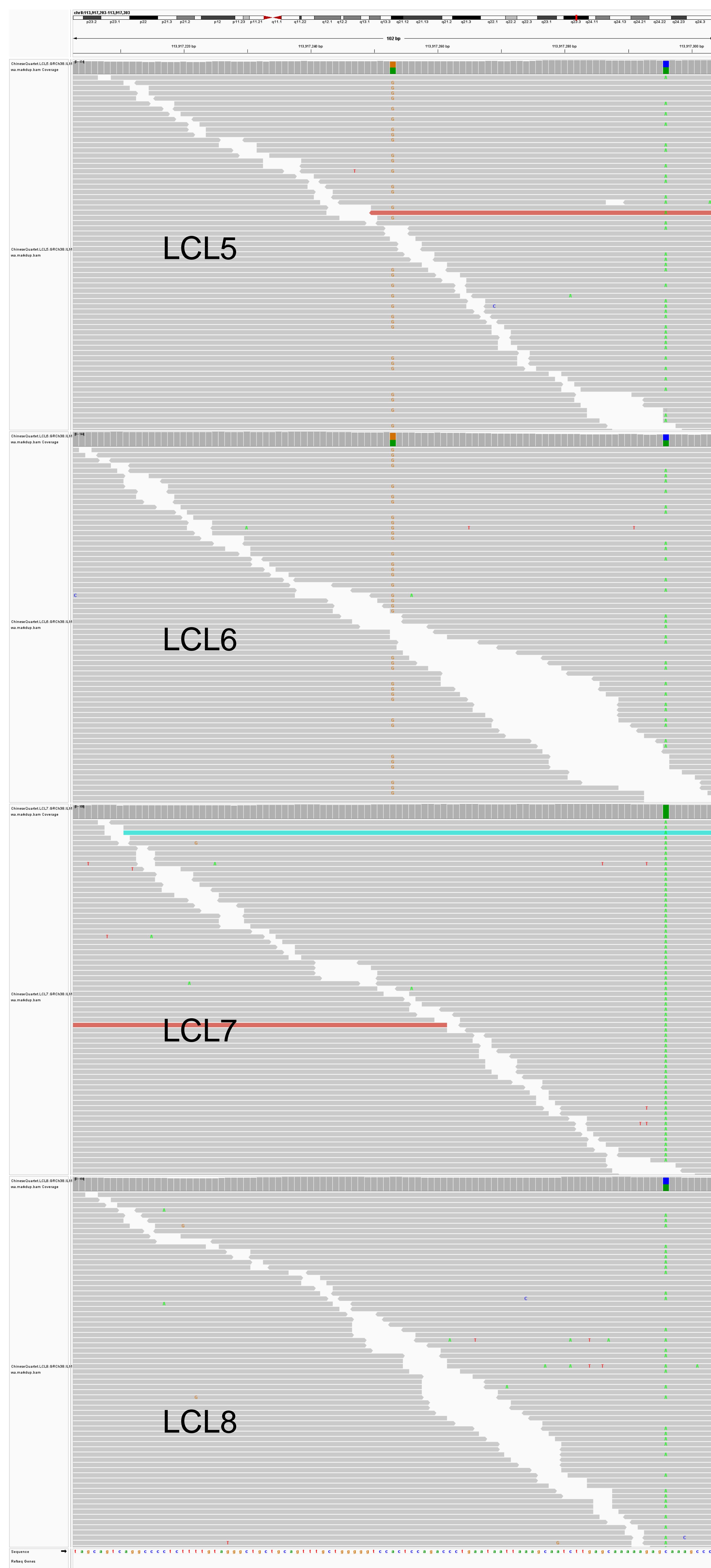
Illumina reads



# POS:chr8:113917253 Report DeNovo mutation by ILM

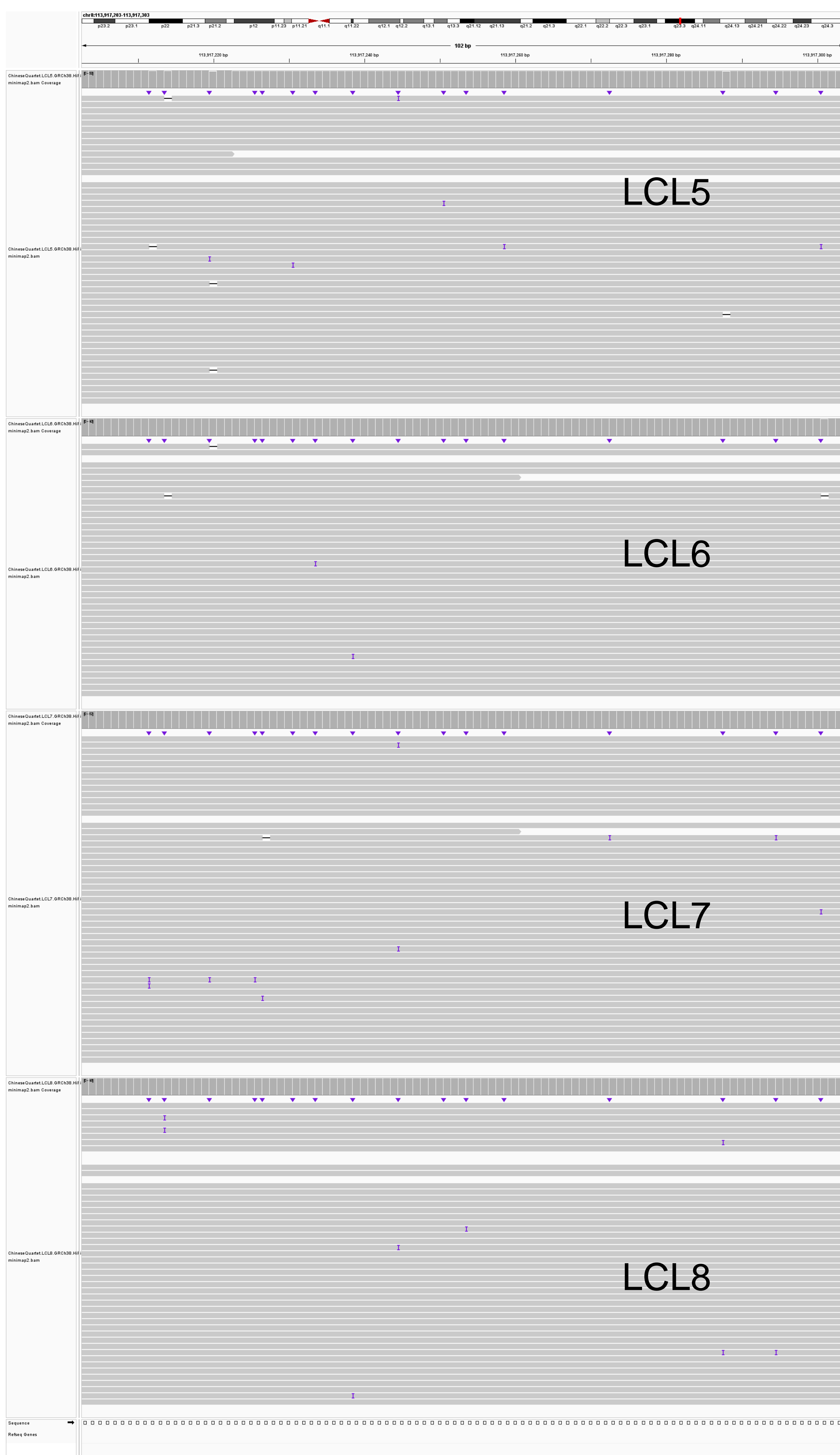


HiFi reads

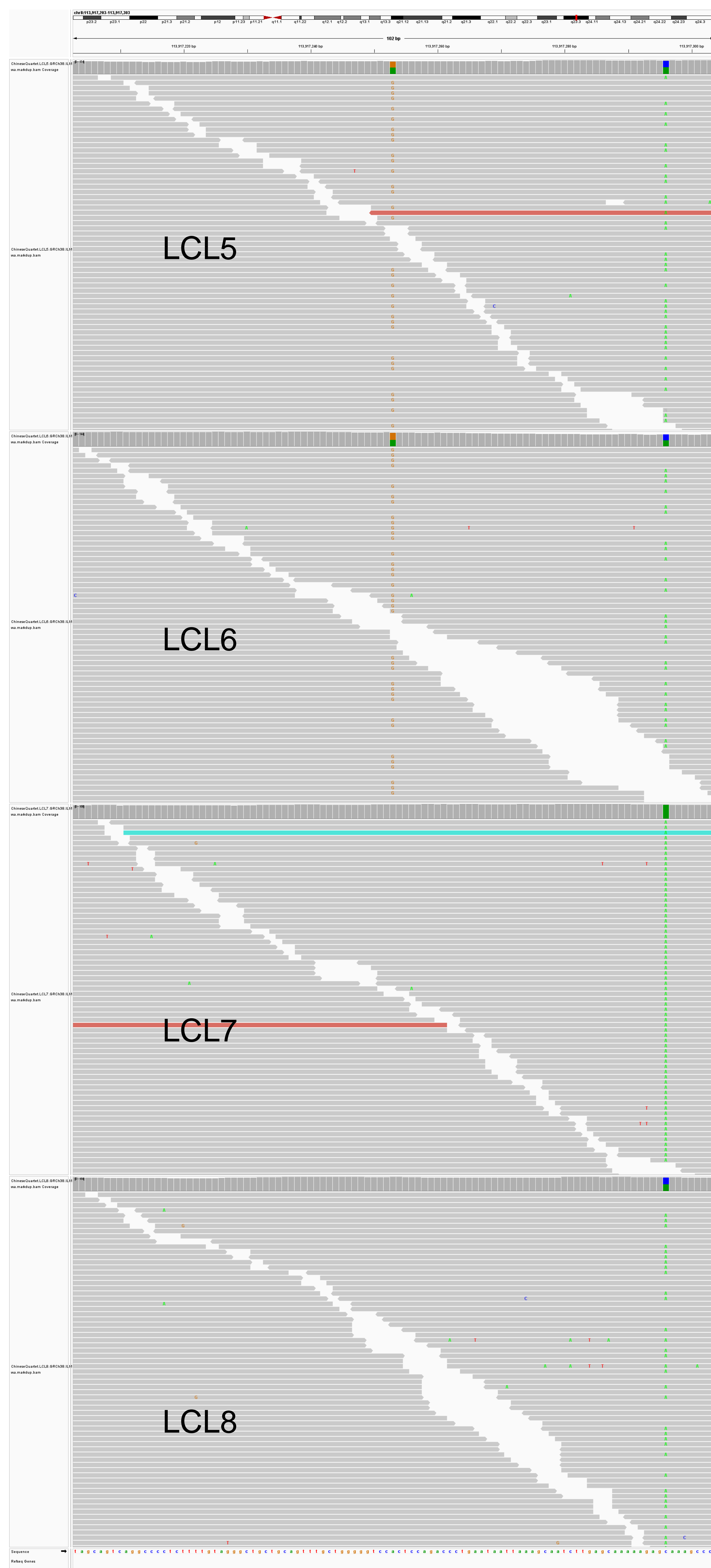


Illumina reads

# POS:chr8:113917253 Report DeNovo mutation by HiFi

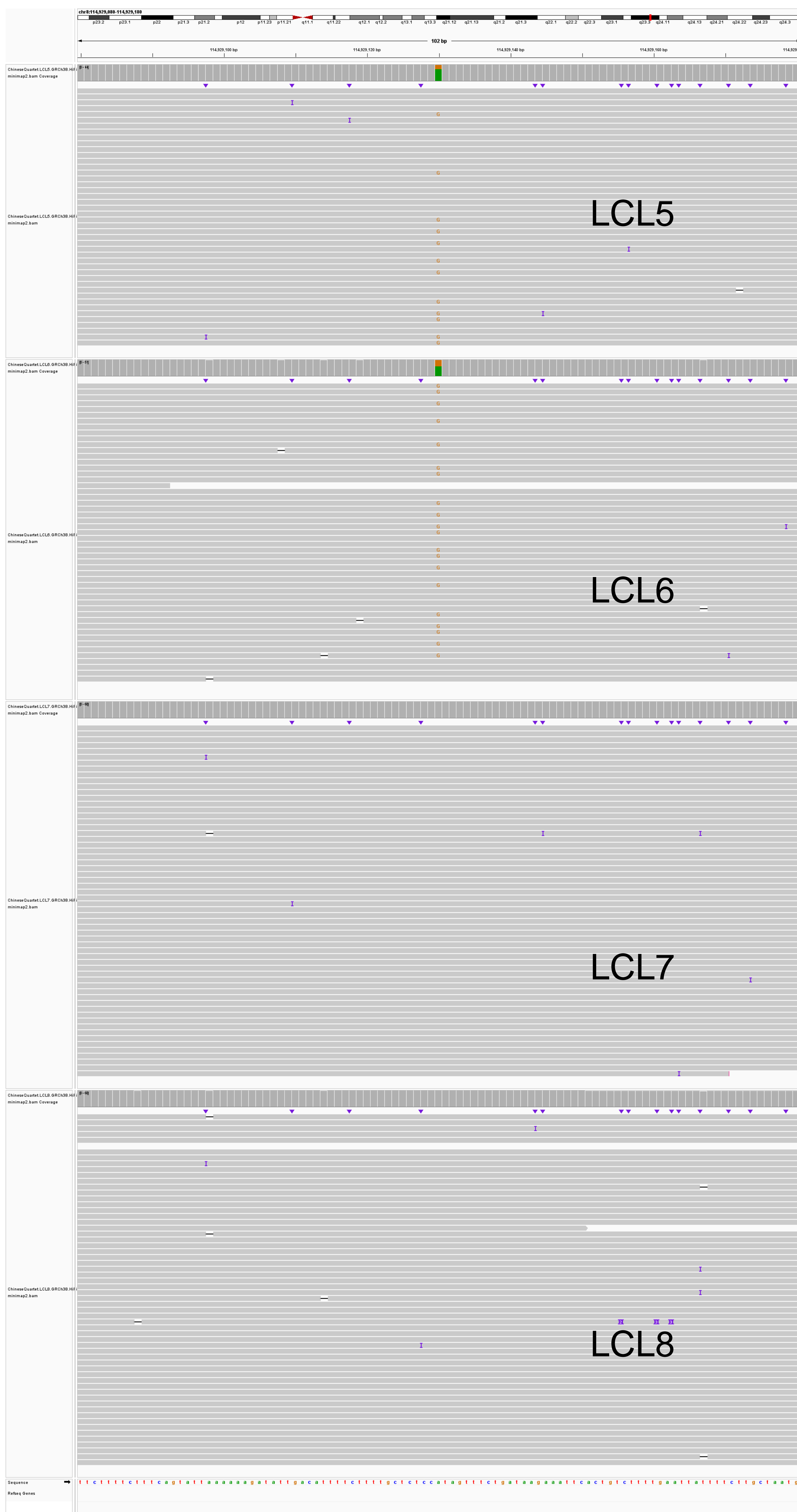


HiFi reads

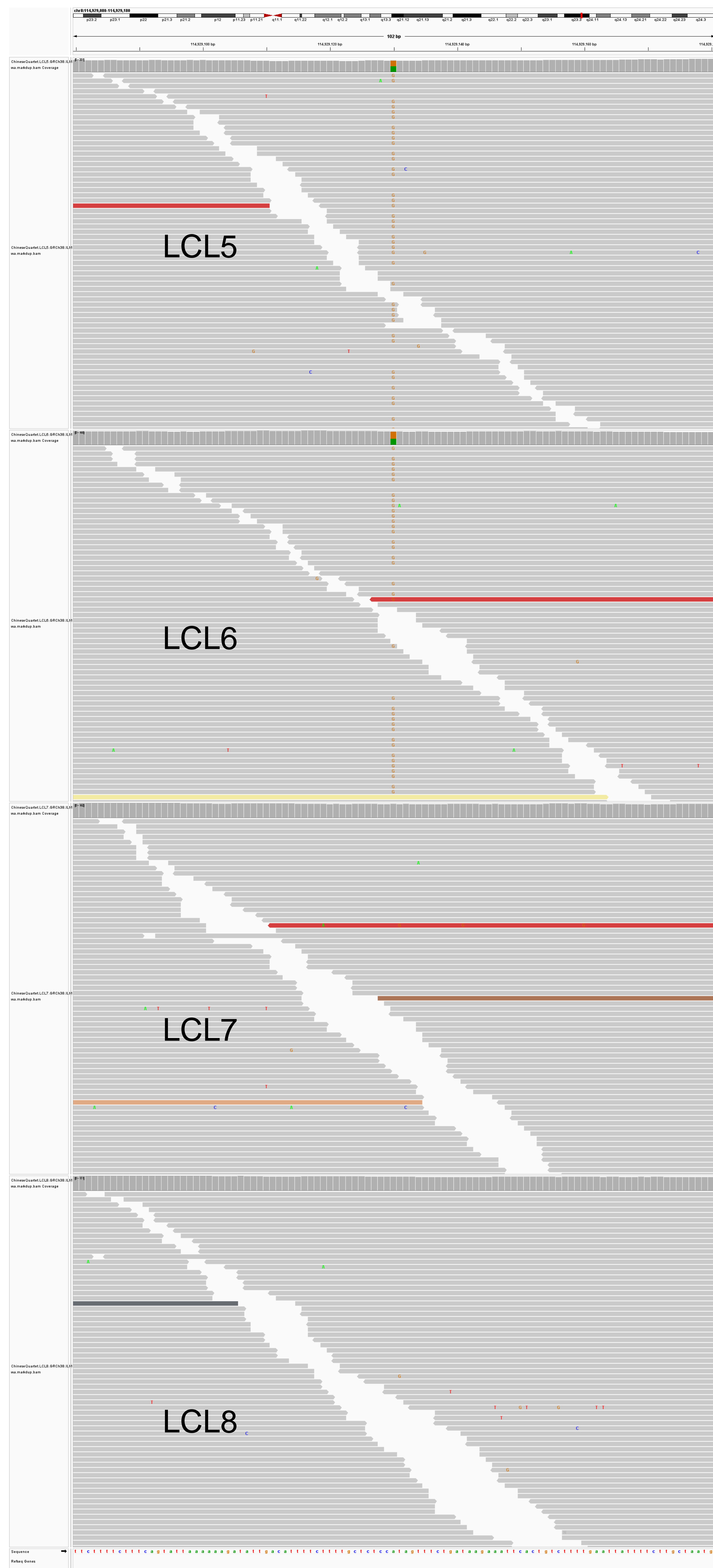


Illumina reads

# POS:chr8:114929130 Report DeNovo mutation by ILM

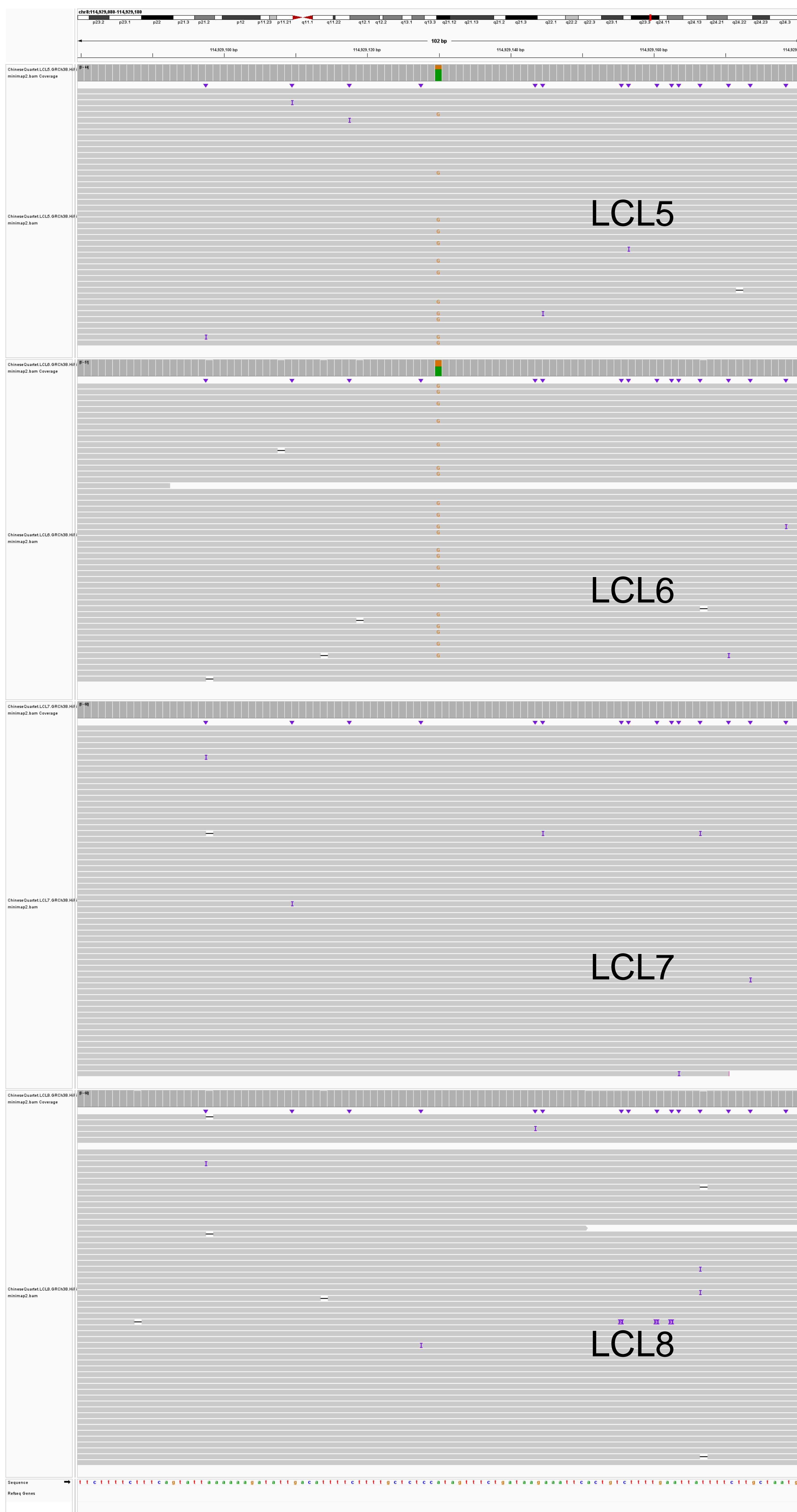


HiFi reads

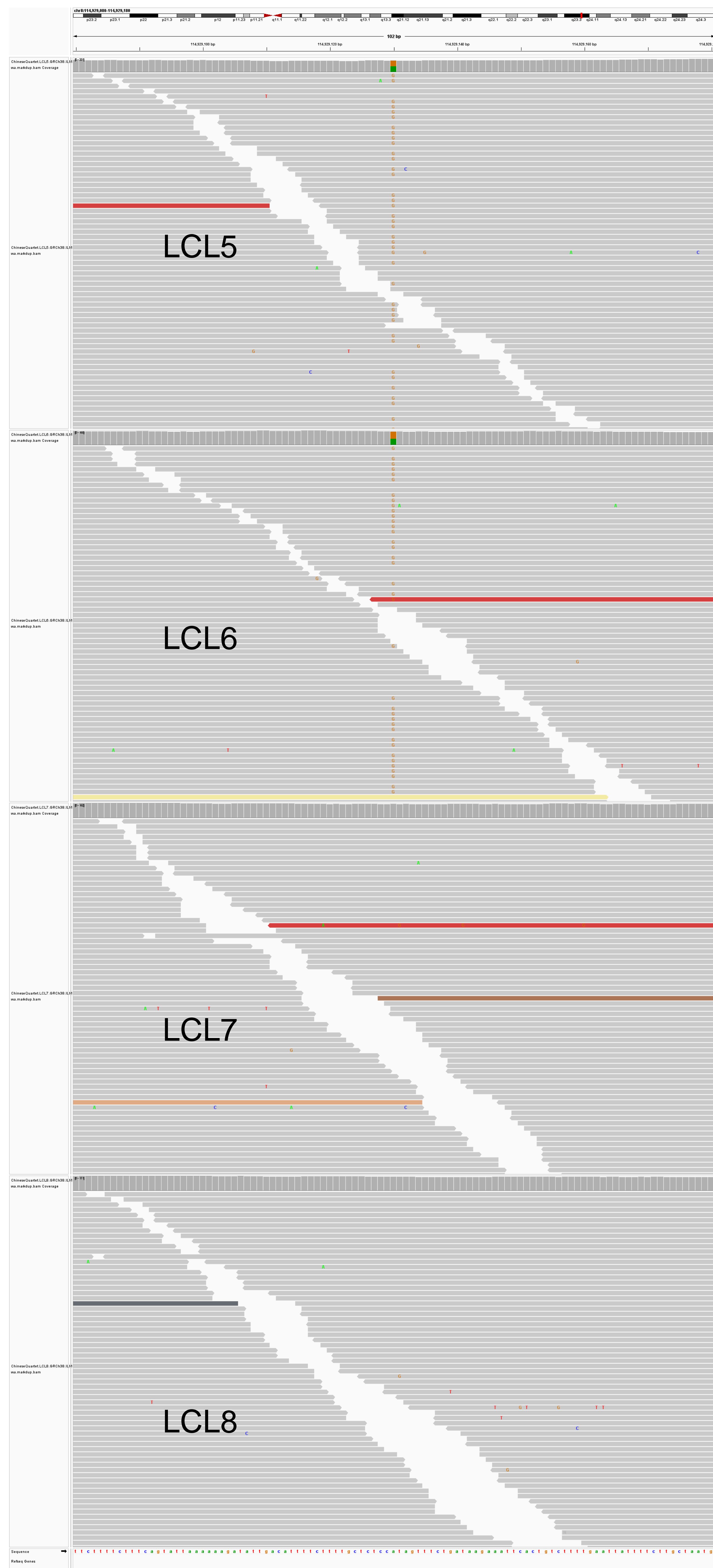


Illumina reads

# POS:chr8:114929130 Report DeNovo mutation by HiFi



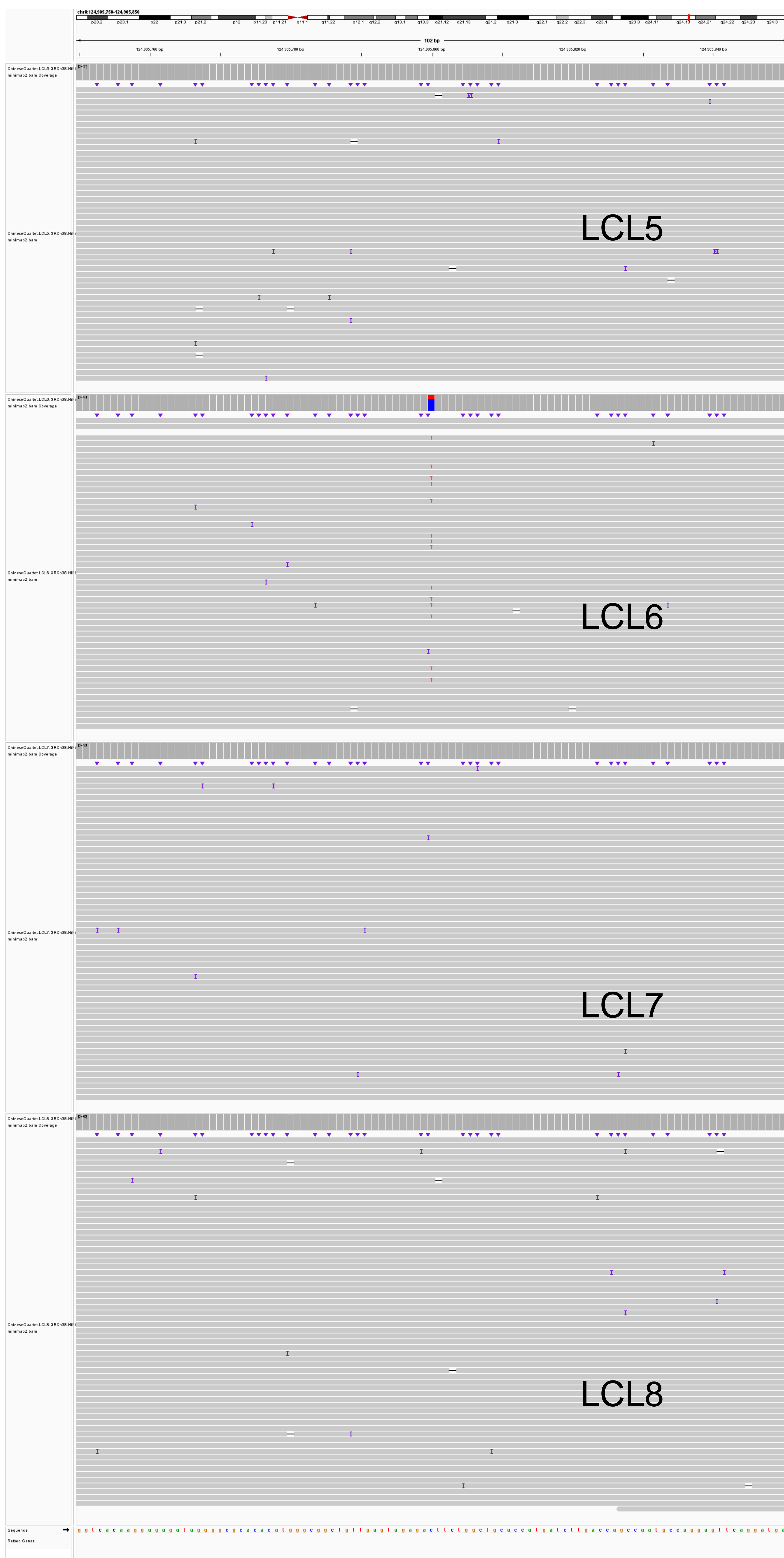
HiFi reads



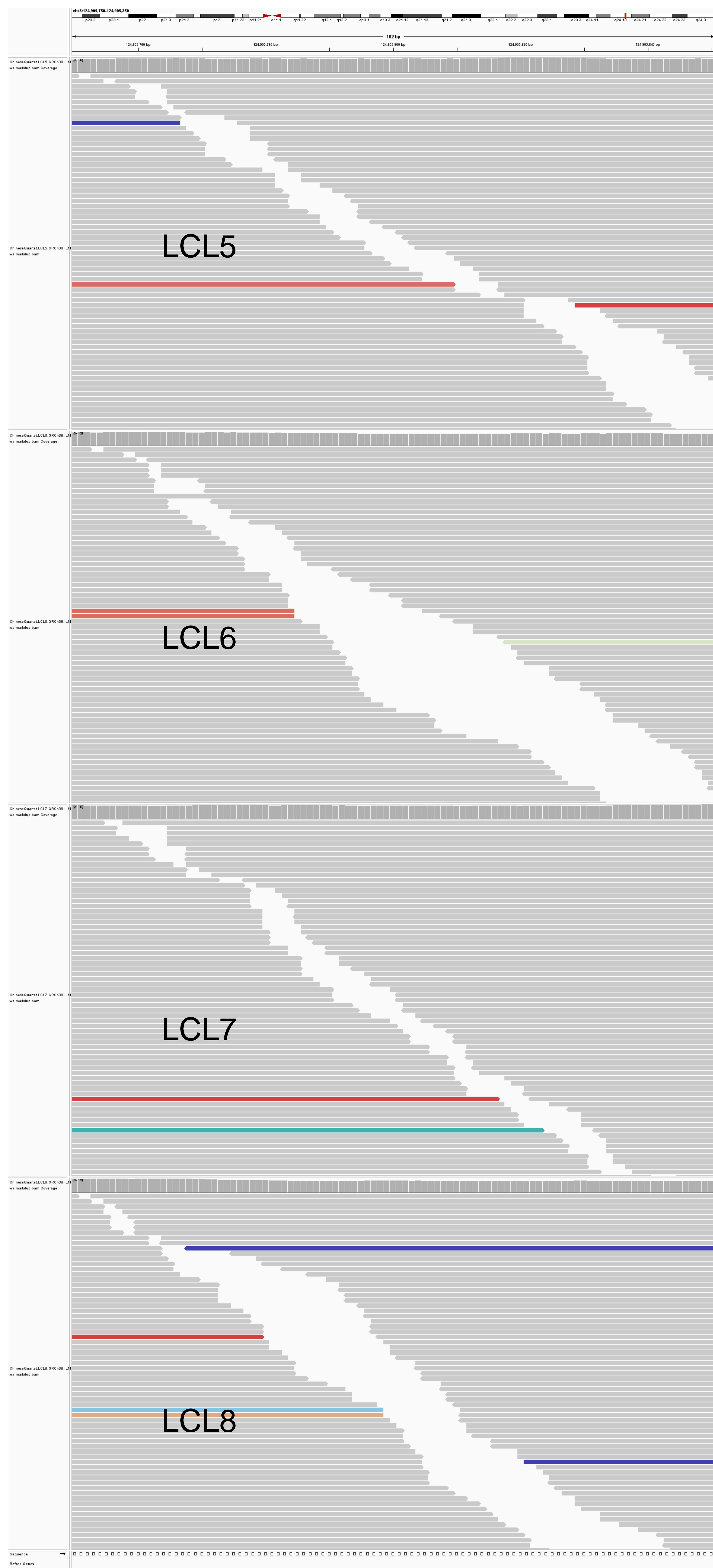
Illumina reads



# POS:chr8:124905800 Report Somatic mutation by HiFi

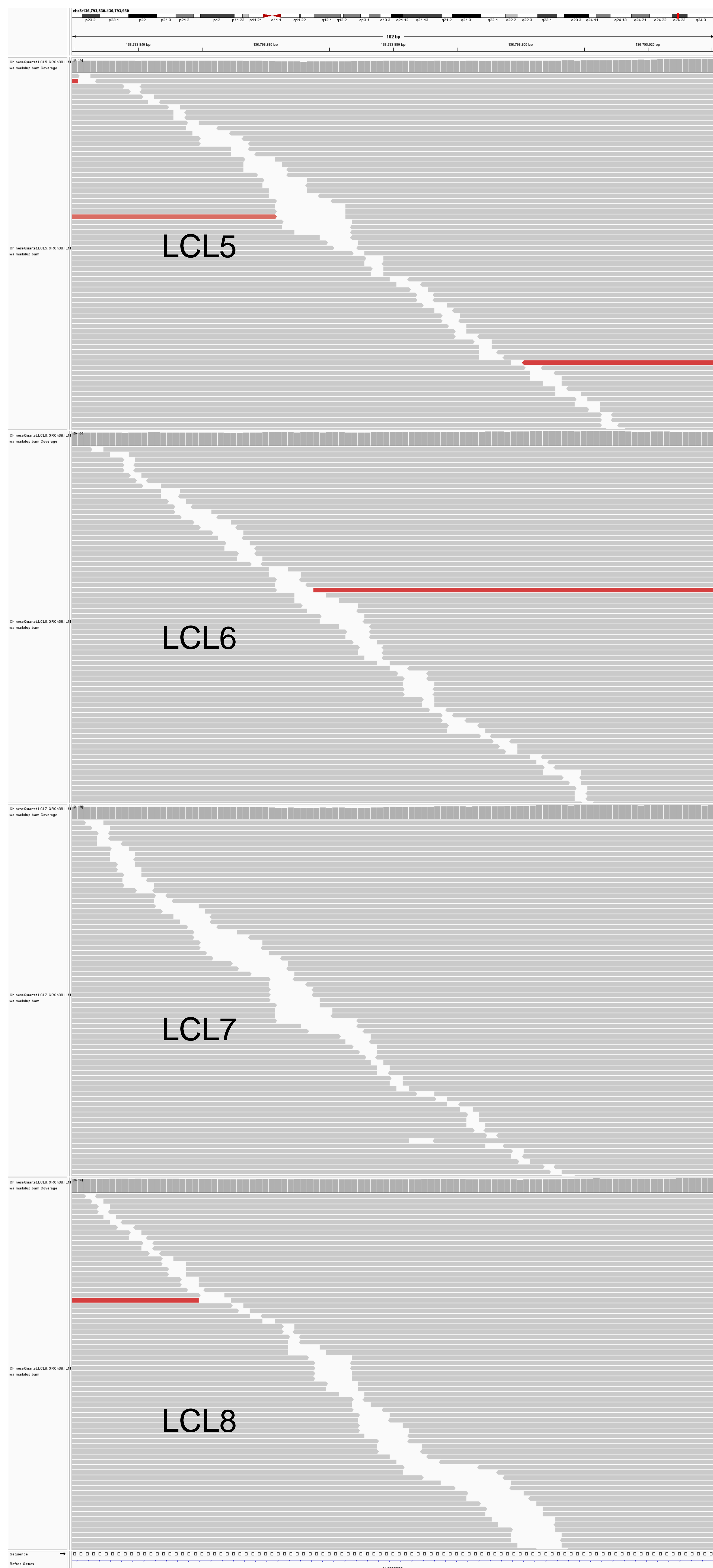
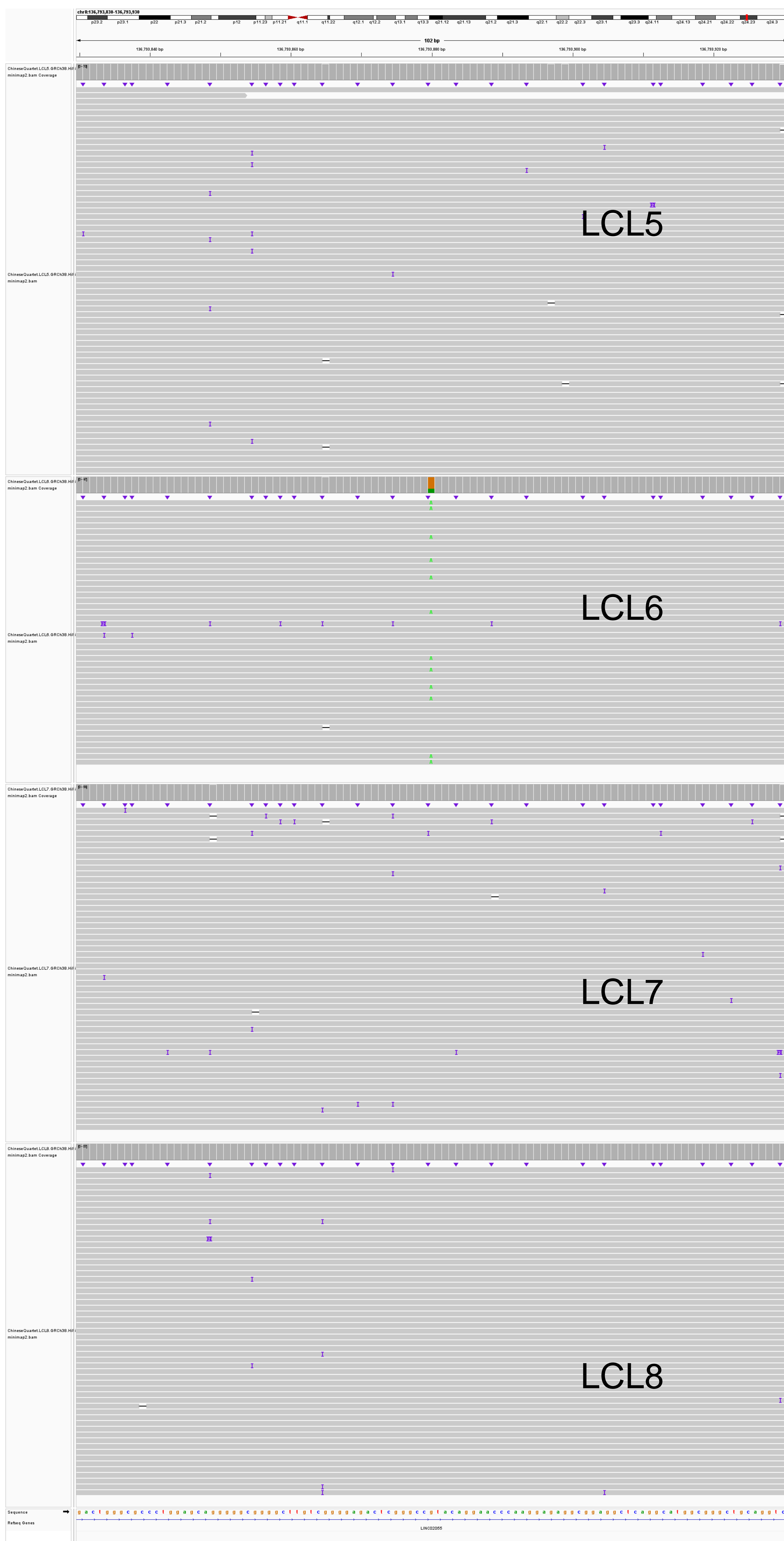


HiFi reads



Illumina reads

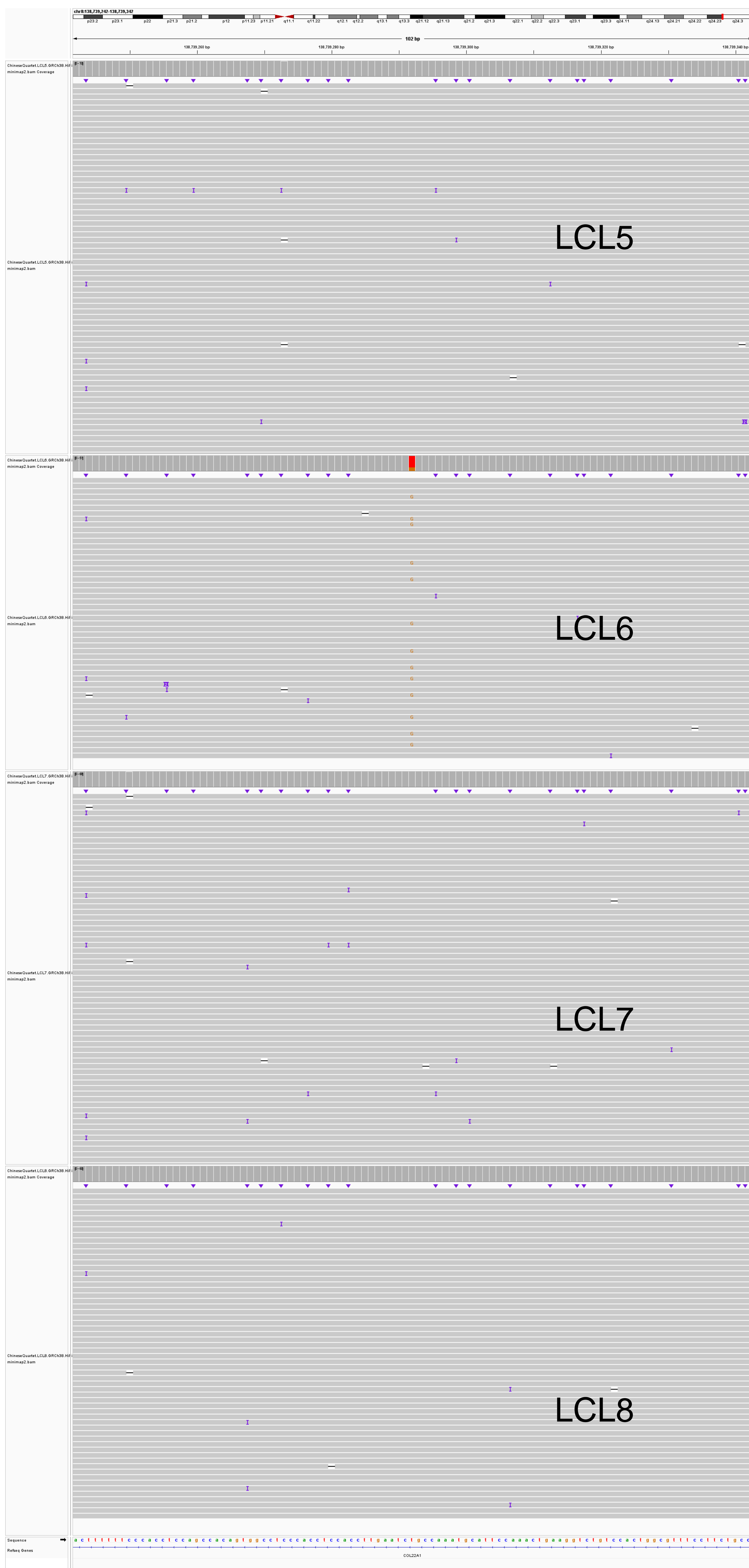
# POS:chr8:136793880 Report Somatic mutation by HiFi



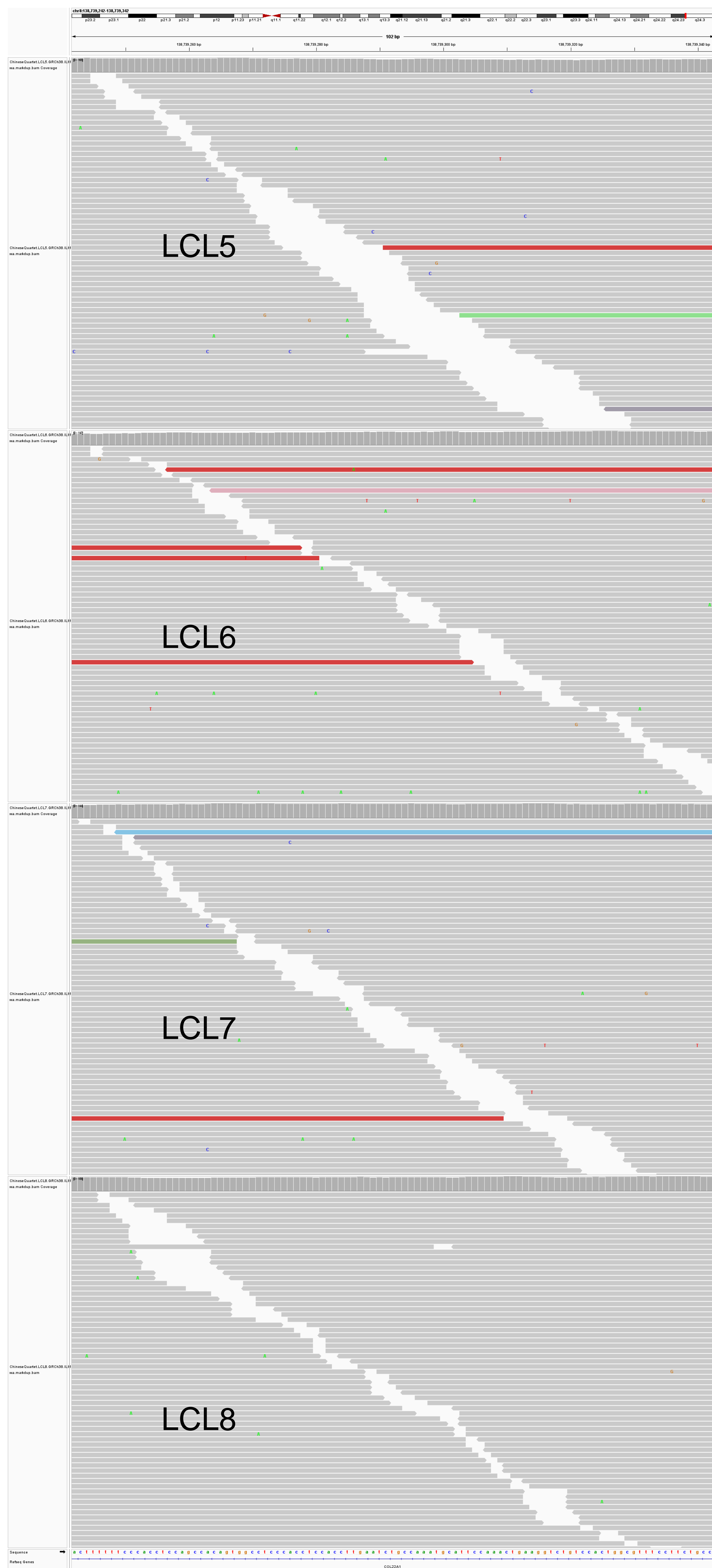
HiFi reads

Illumina reads

# POS:chr8:138739292 Report Somatic mutation by HiFi

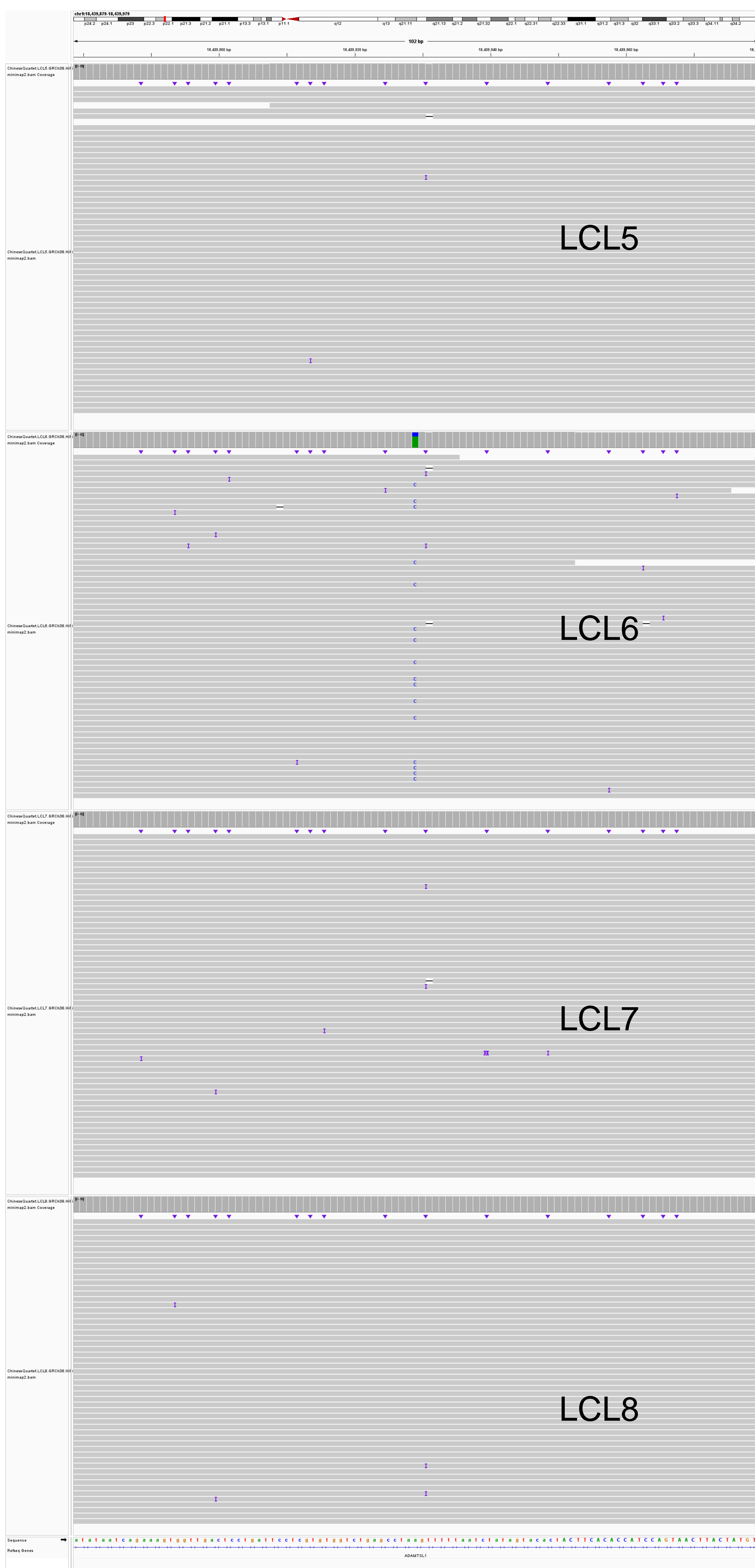


HiFi reads

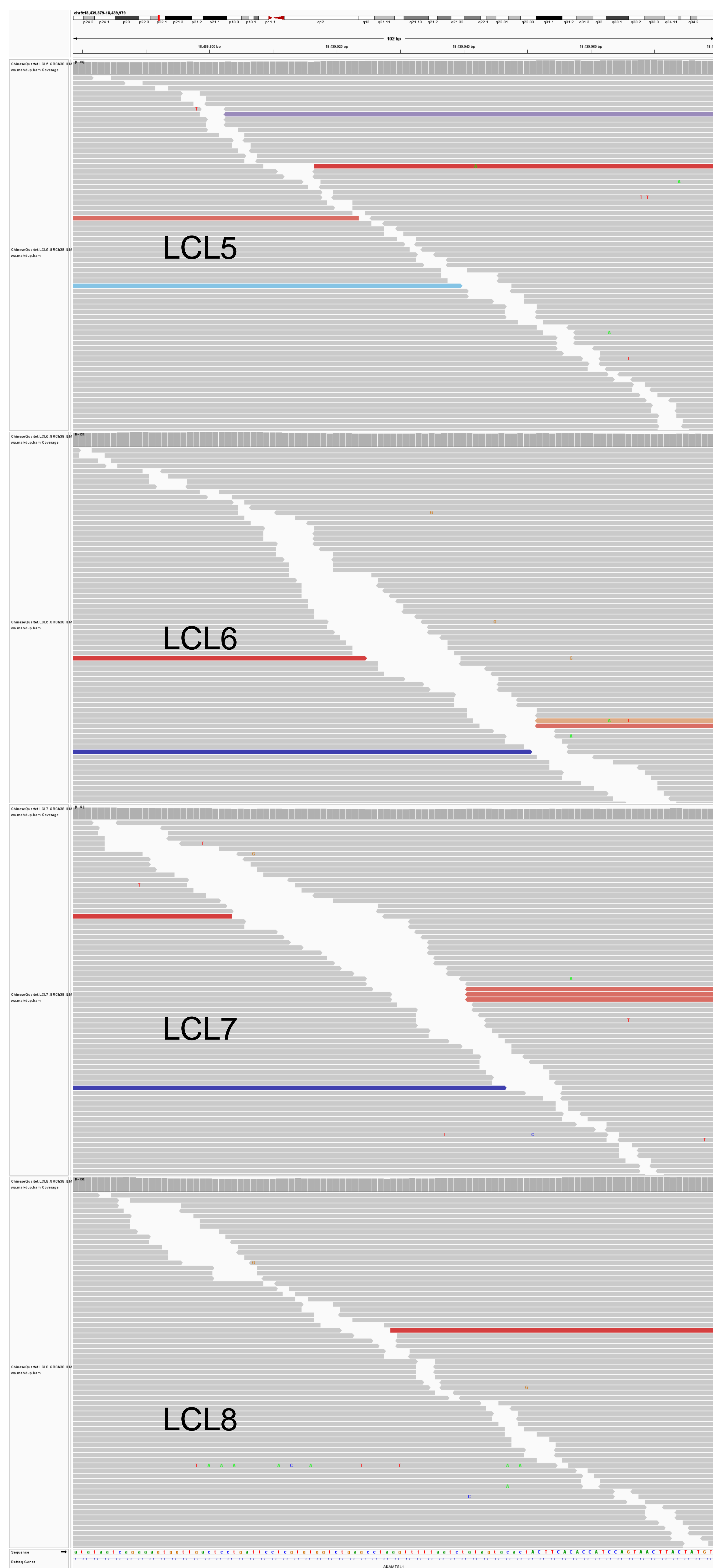


Illumina reads

# POS:chr9:18439929 Report Somatic mutation by HiFi



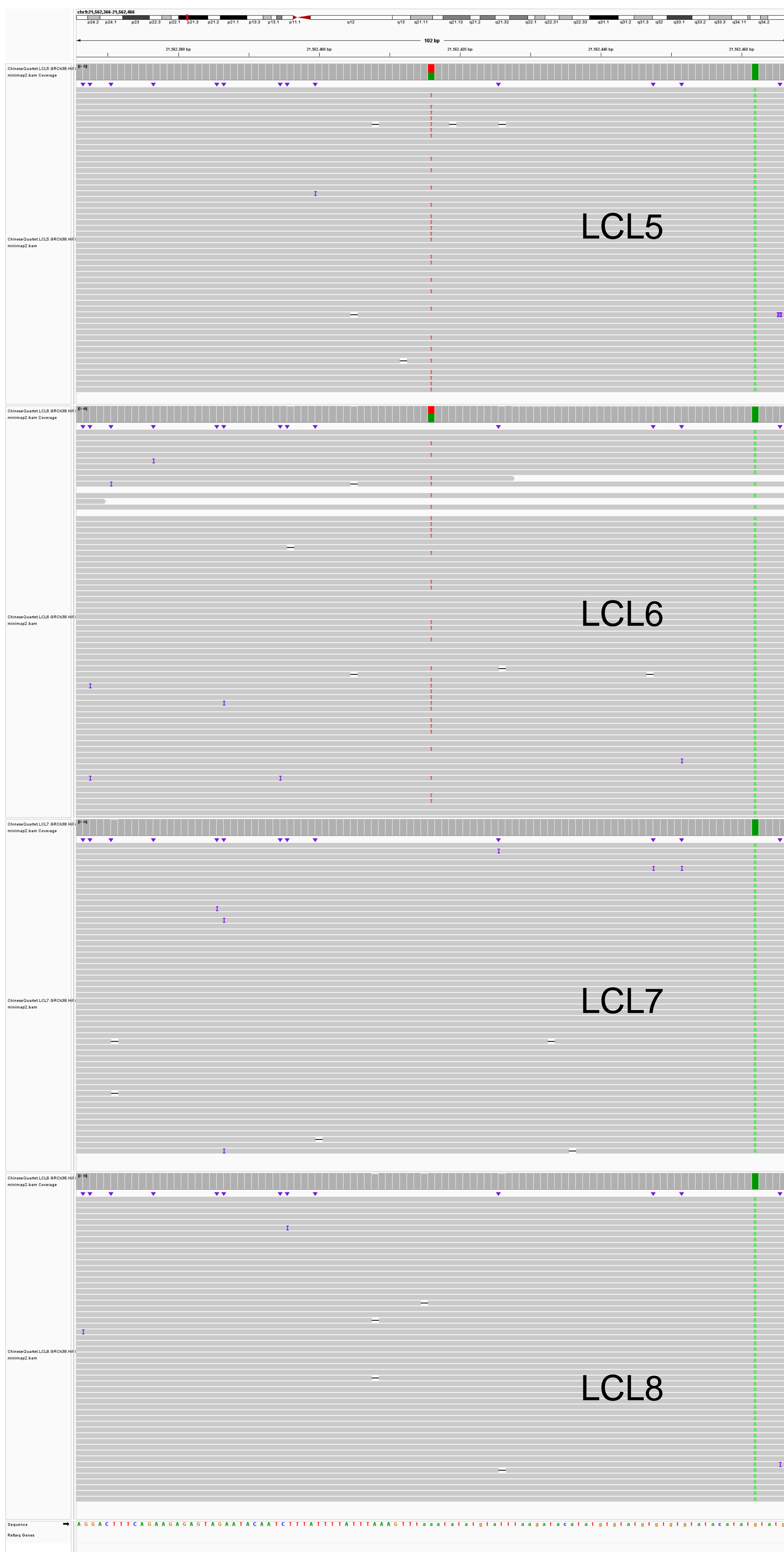
HiFi reads



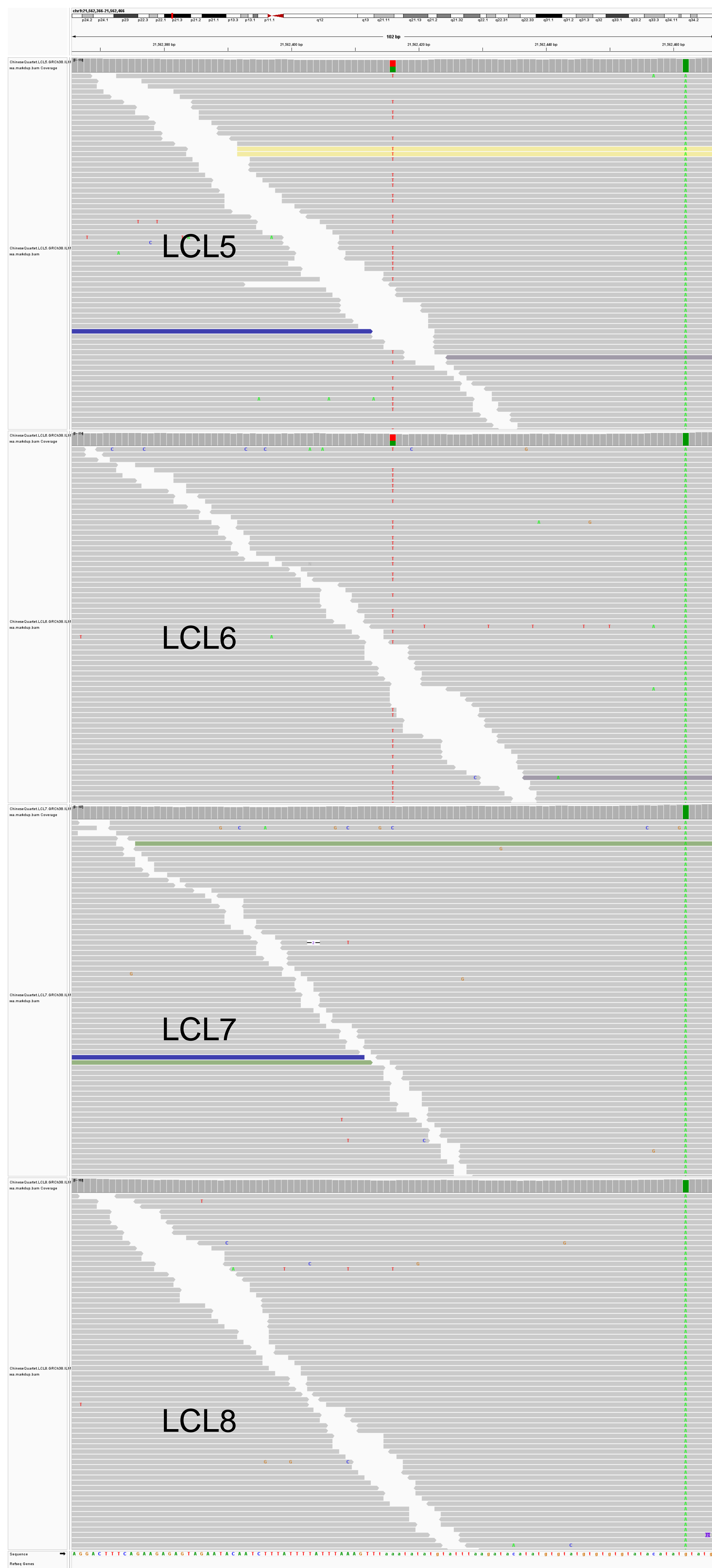
Illumina reads



# POS:chr9:21562416 Report DeNovo mutation by ILM



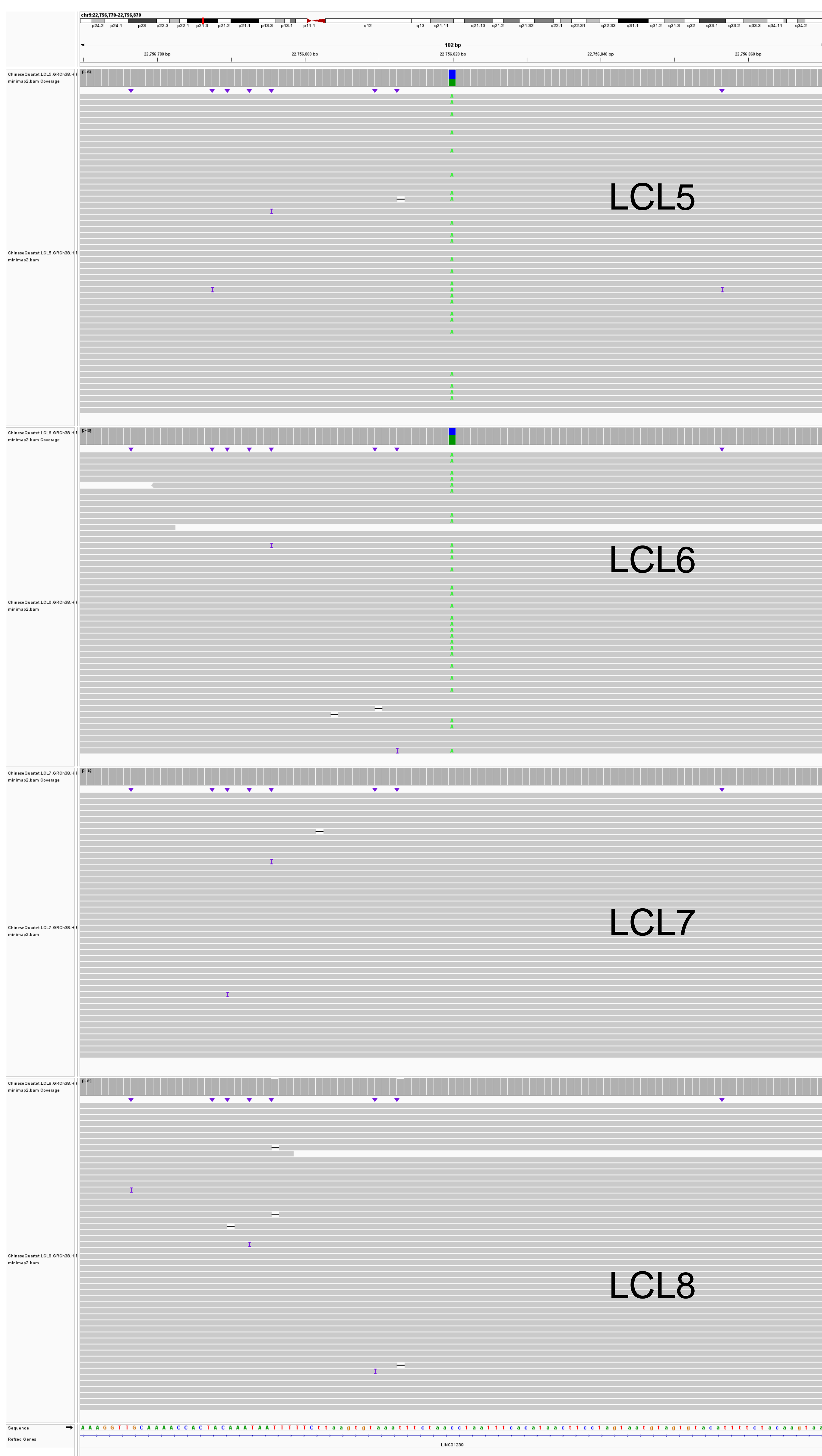
HiFi reads



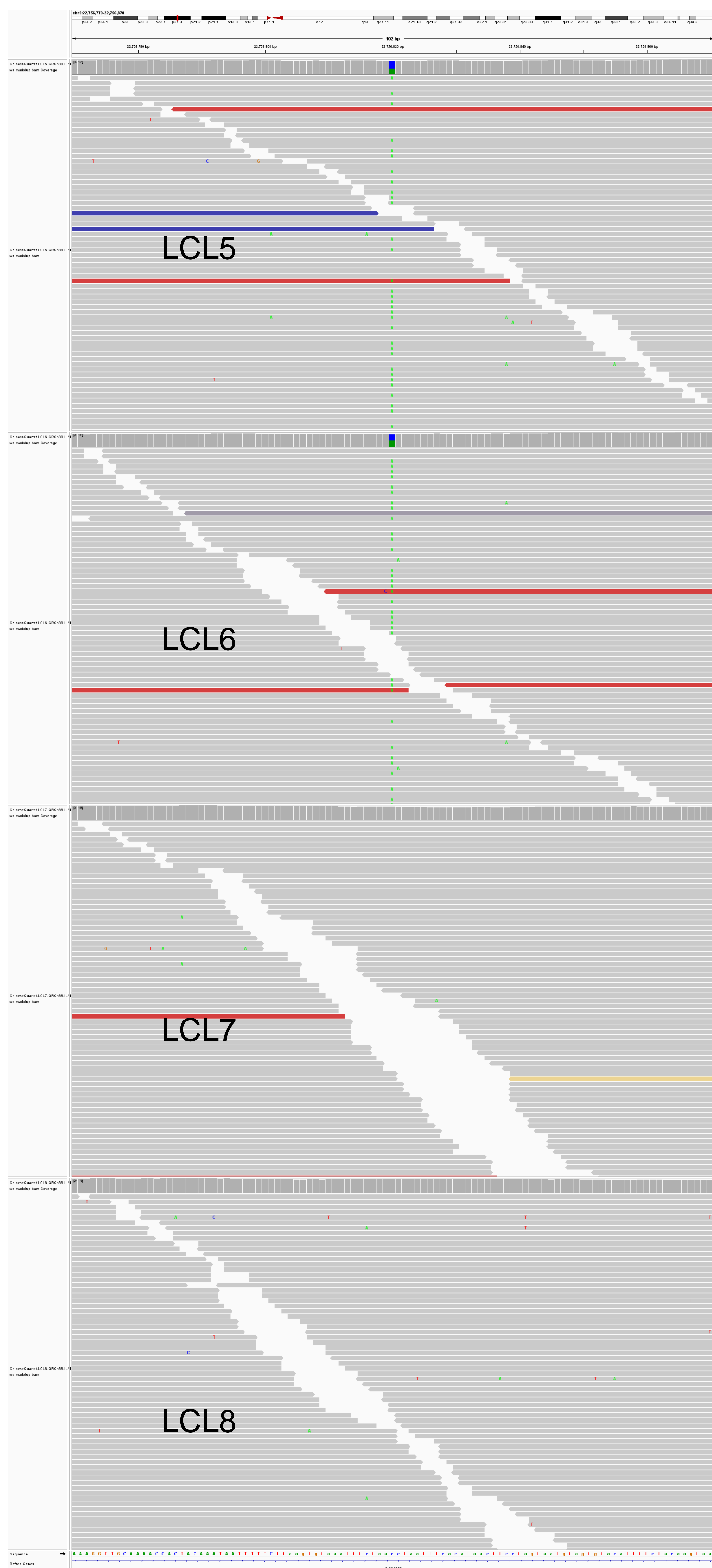
Illumina reads



# POS:chr9:22756820 Report DeNovo mutation by ILM



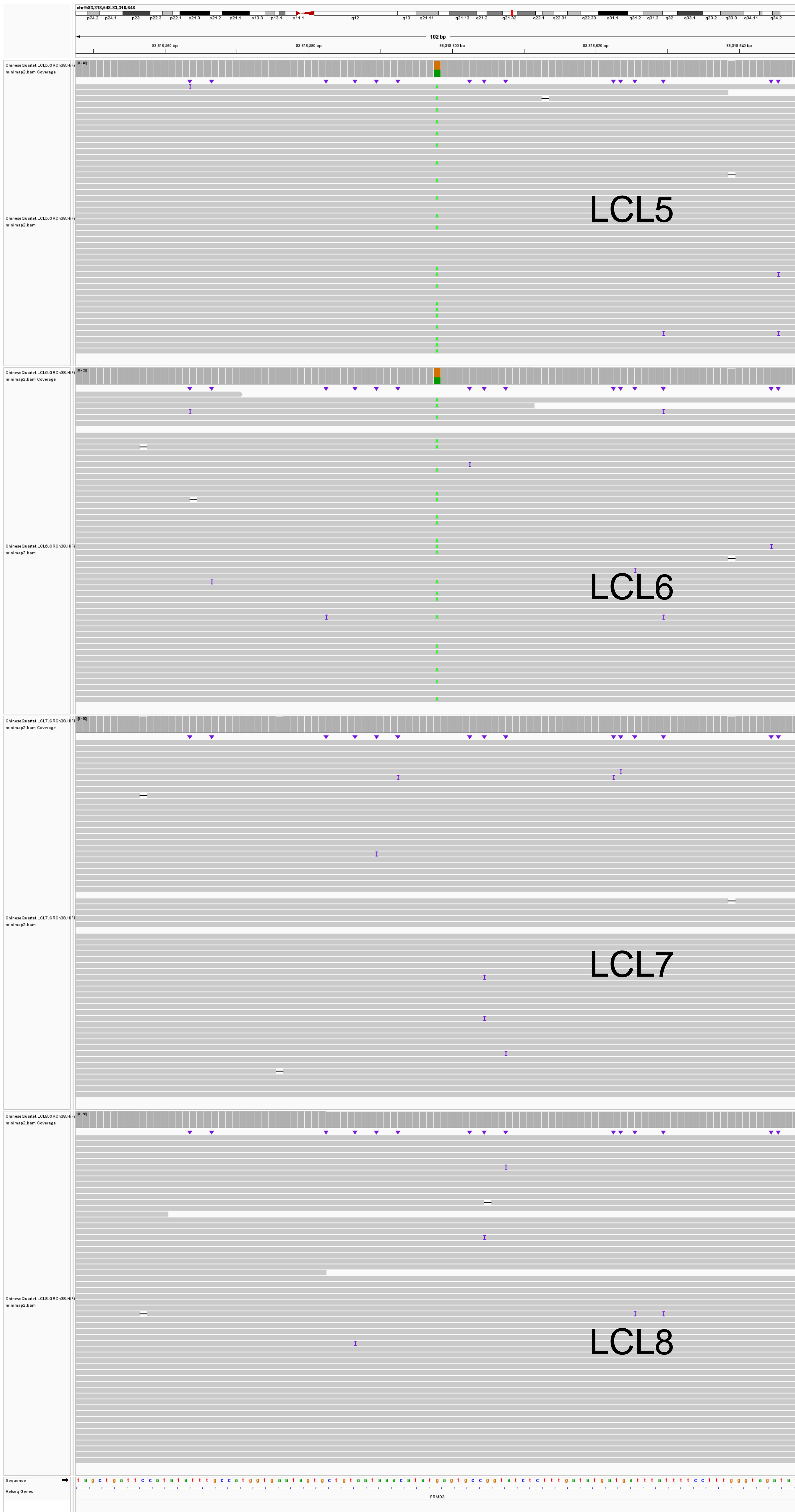
HiFi reads



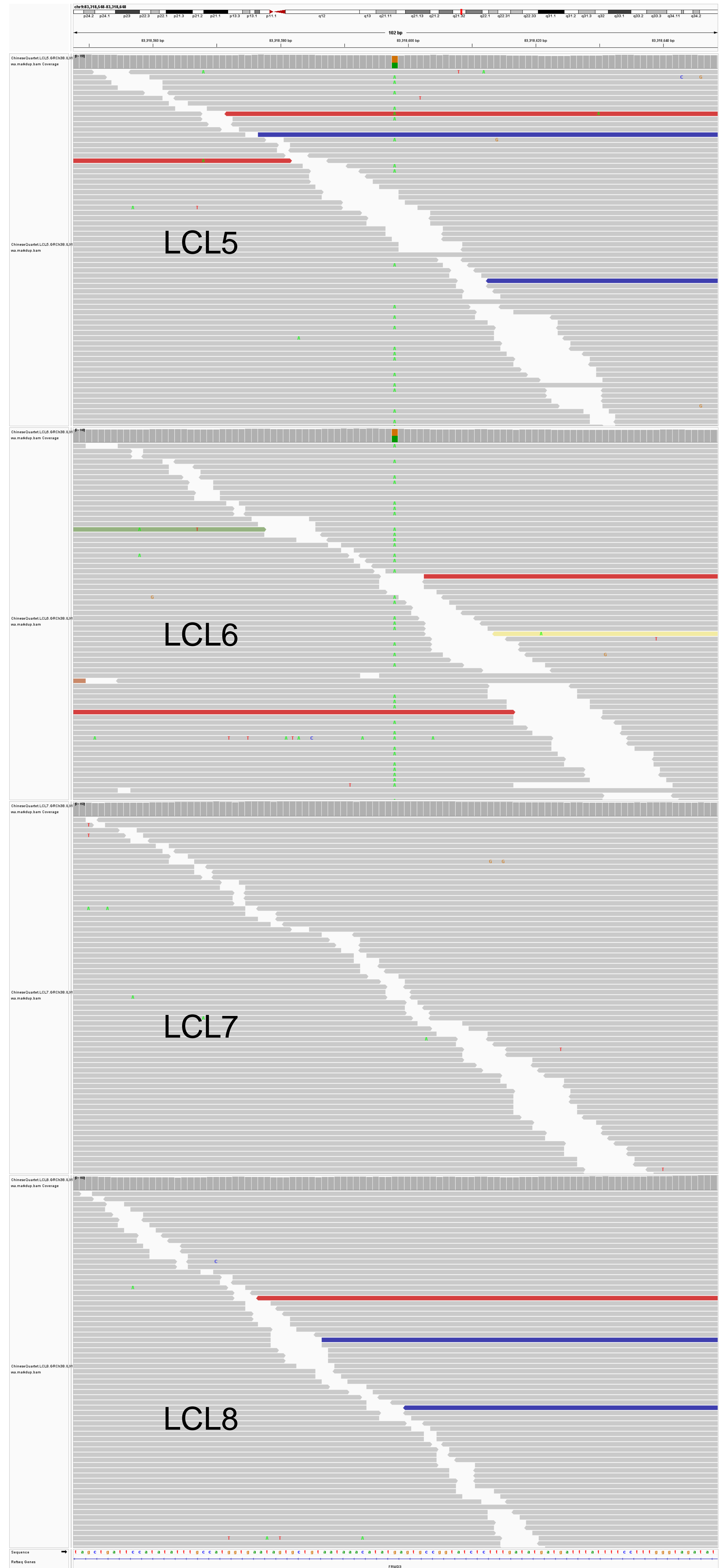
Illumina reads



POS:chr9:83318598 Report DeNovo mutation by ILM



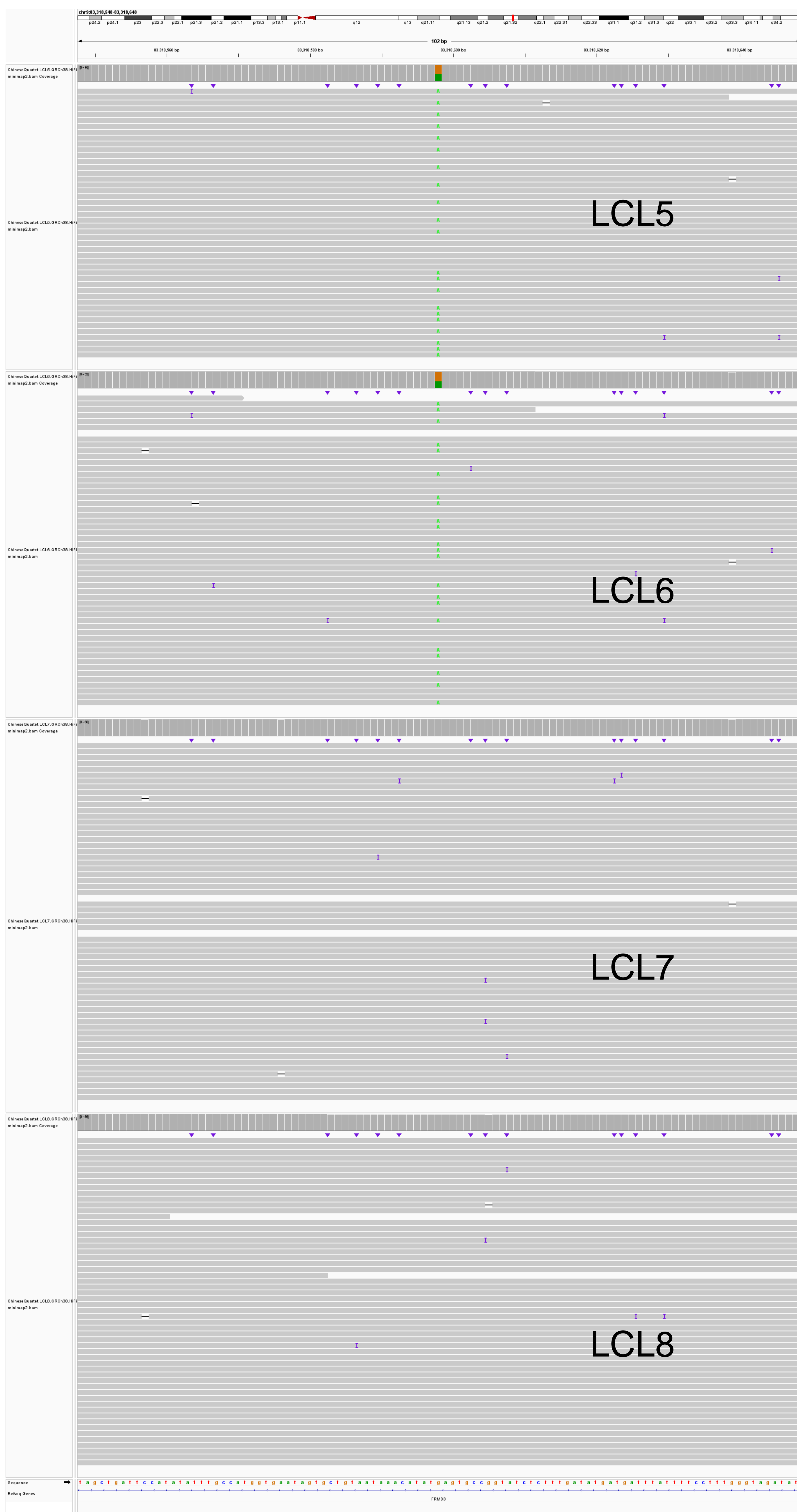
HiFi reads



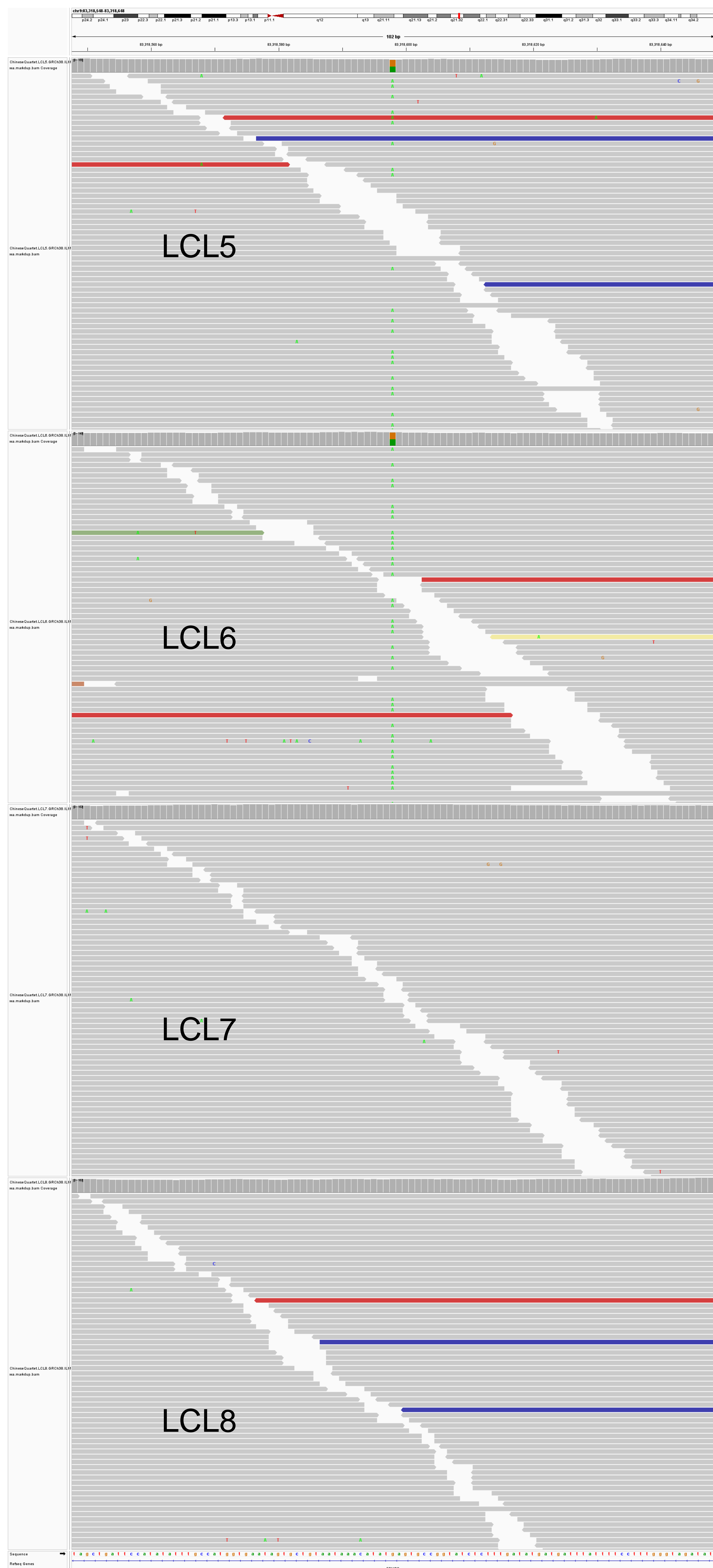
Illumina reads



# POS:chr9:83318598 Report DeNovo mutation by HiFi

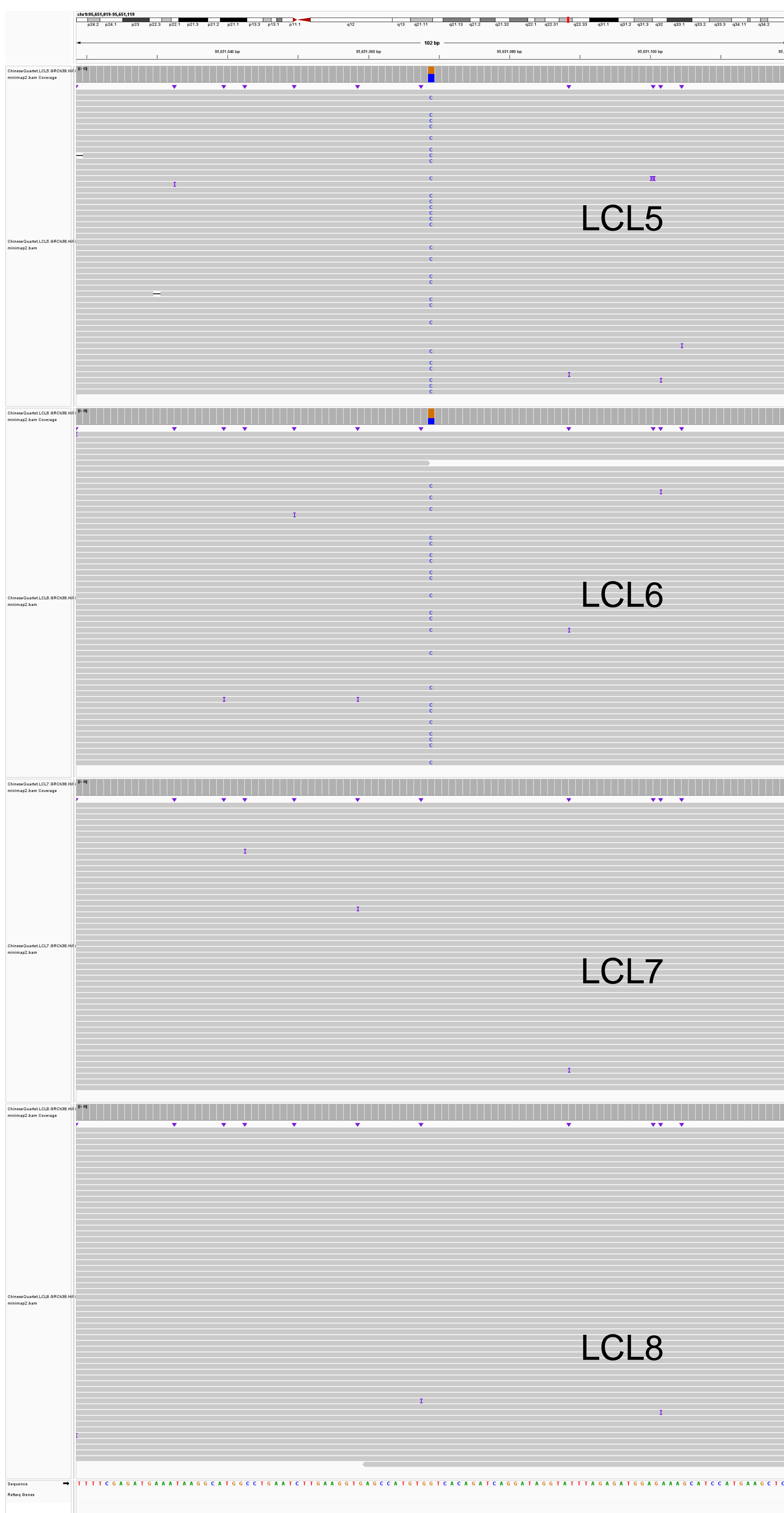


HiFi reads

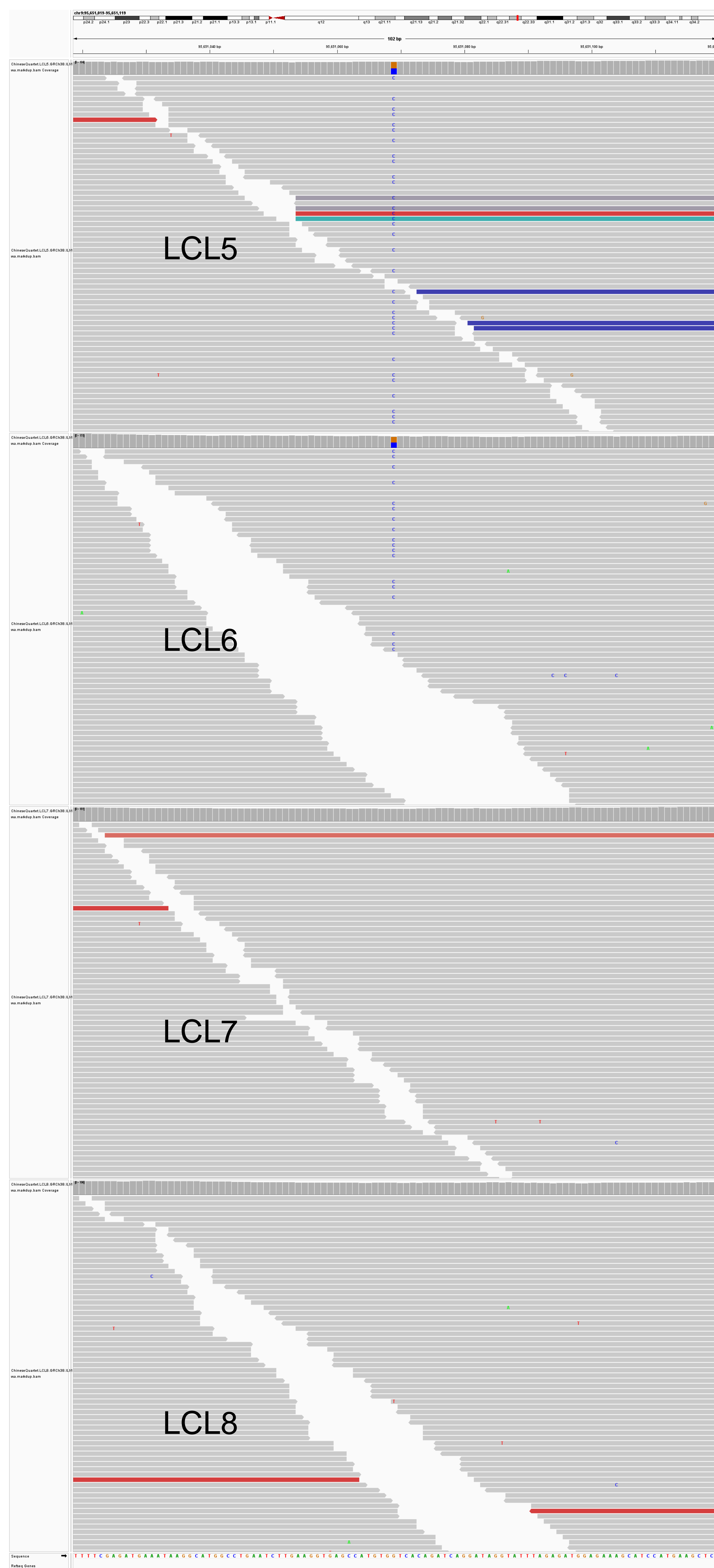


Illumina reads

# POS:chr9:95651069 Report DeNovo mutation by ILM

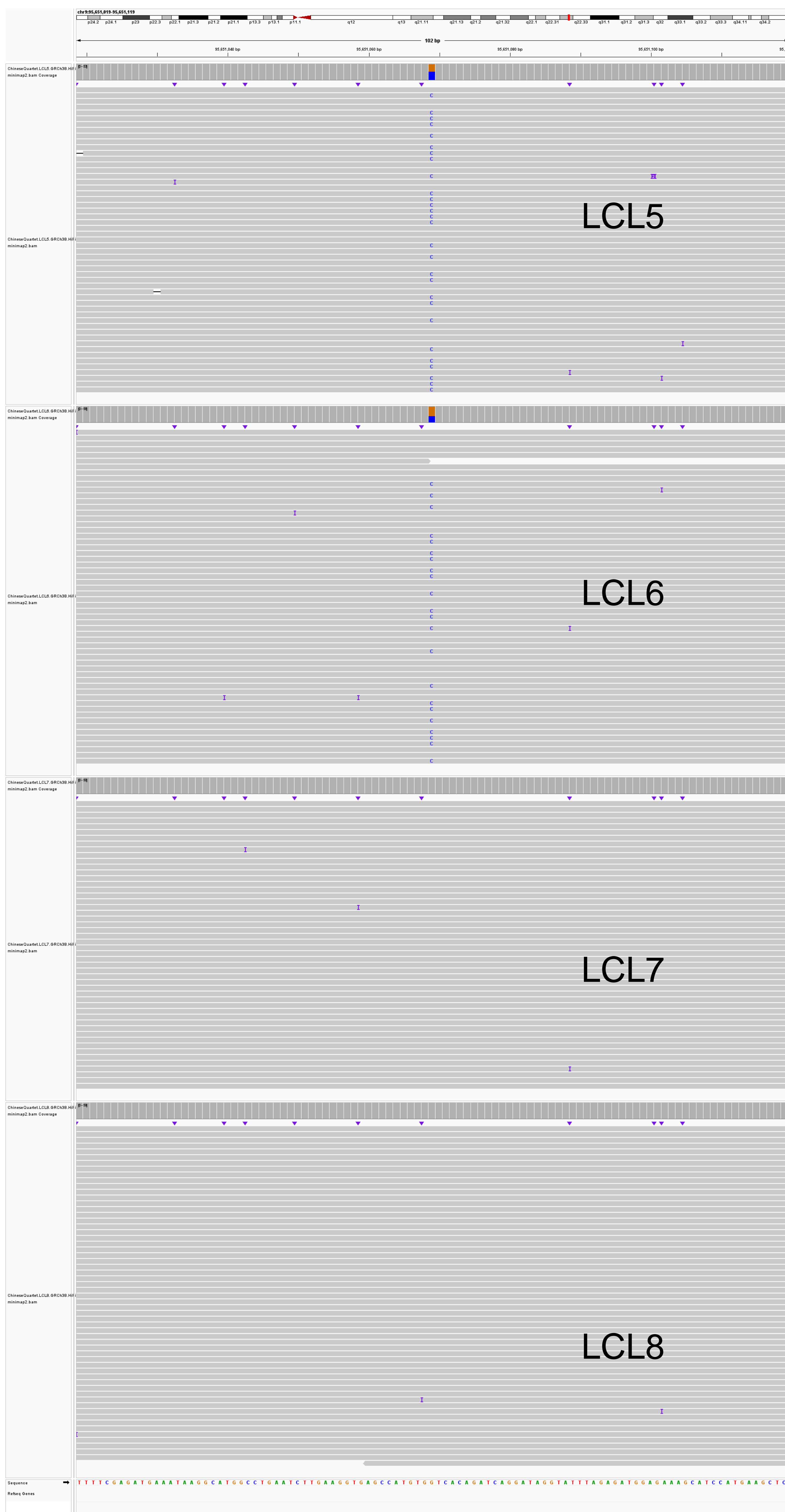


HiFi reads

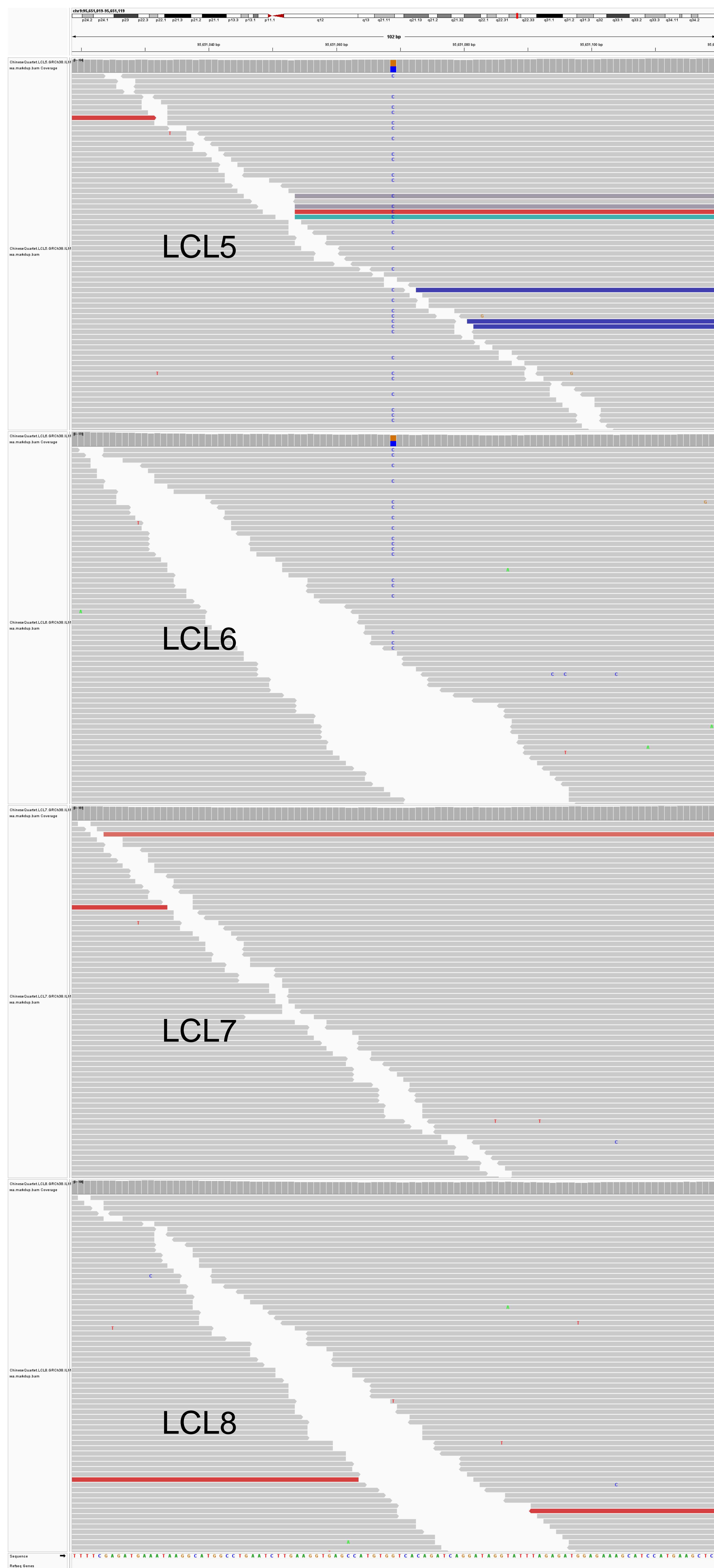


Illumina reads

# POS:chr9:95651069 Report DeNovo mutation by HiFi

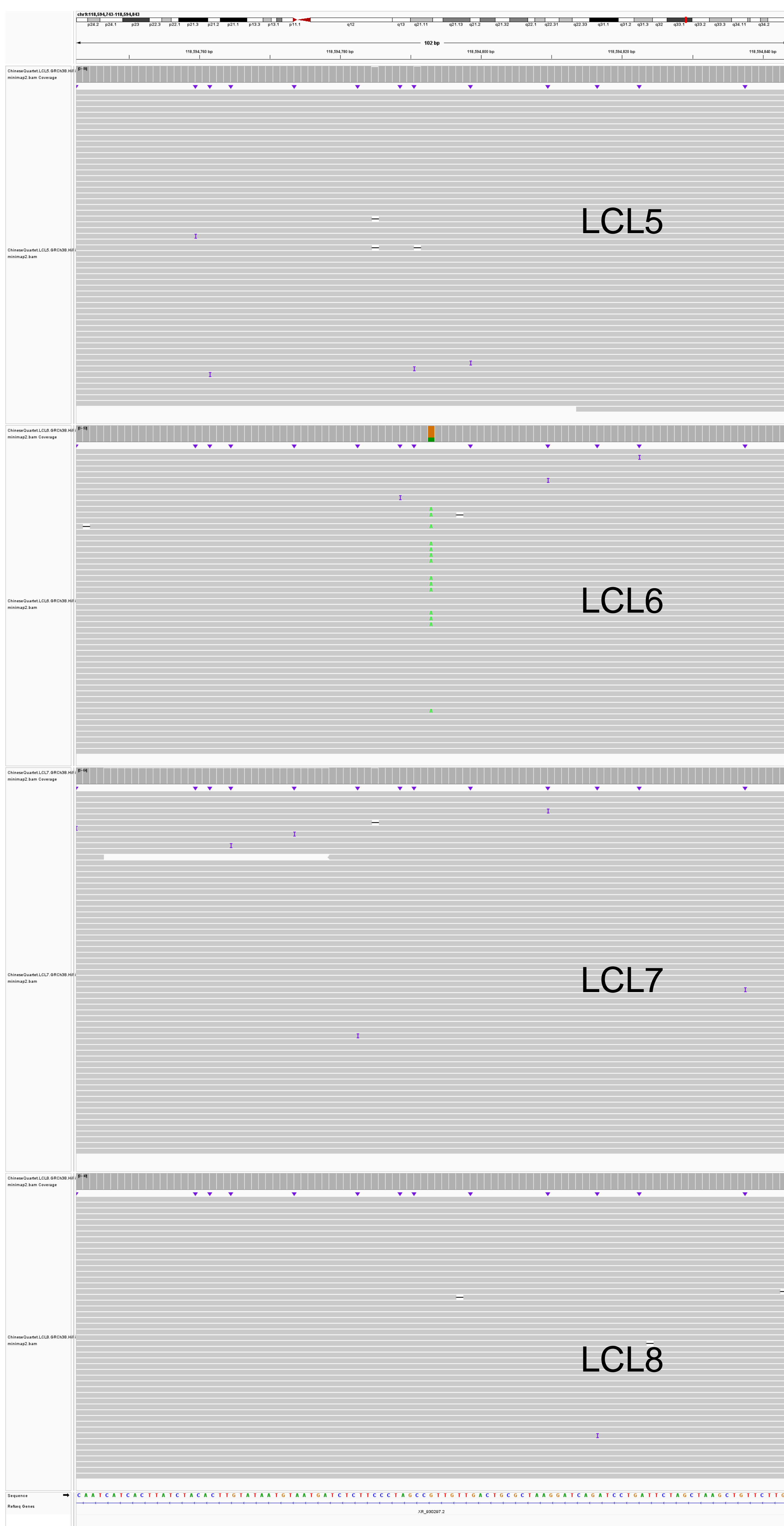


HiFi reads

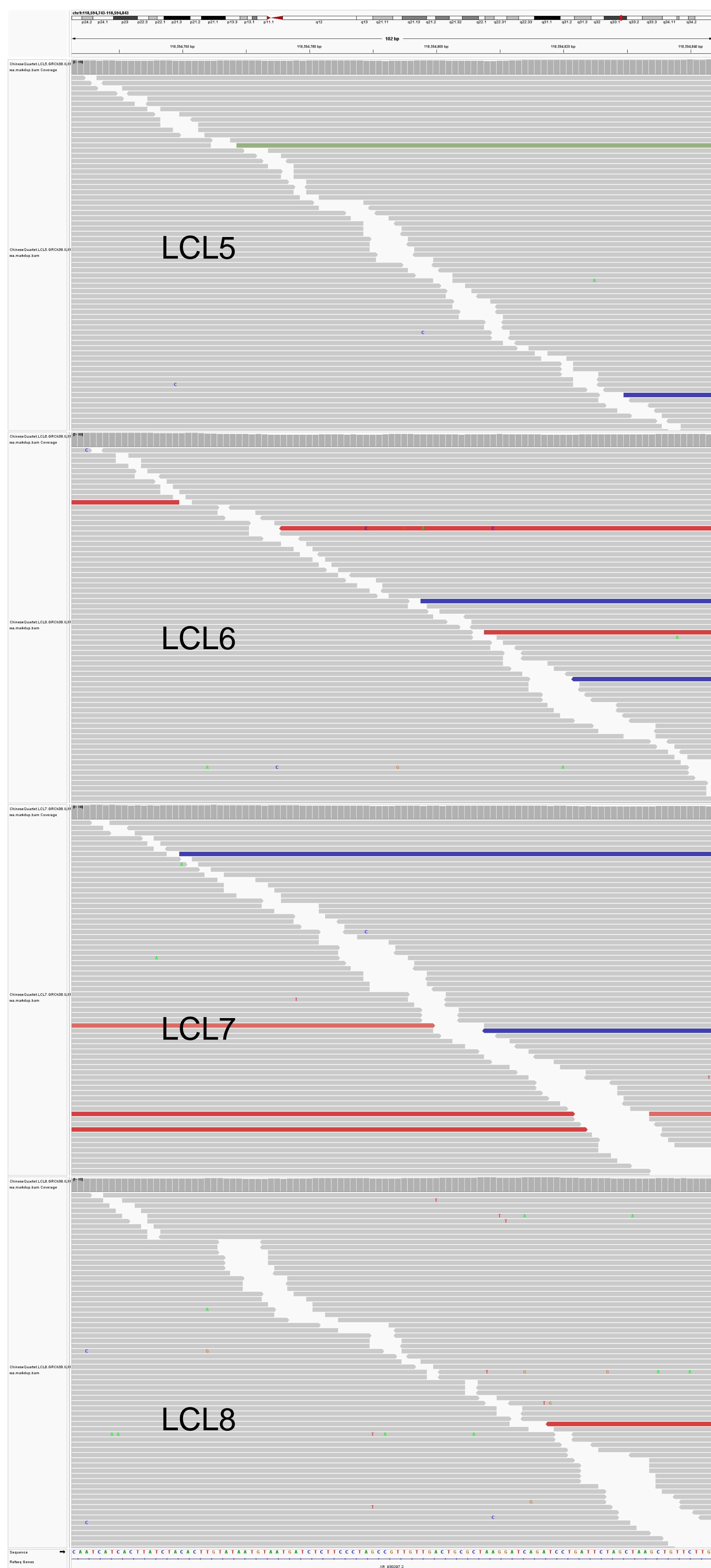


Illumina reads

# POS:chr9:118594793 Report Somatic mutation by HiFi



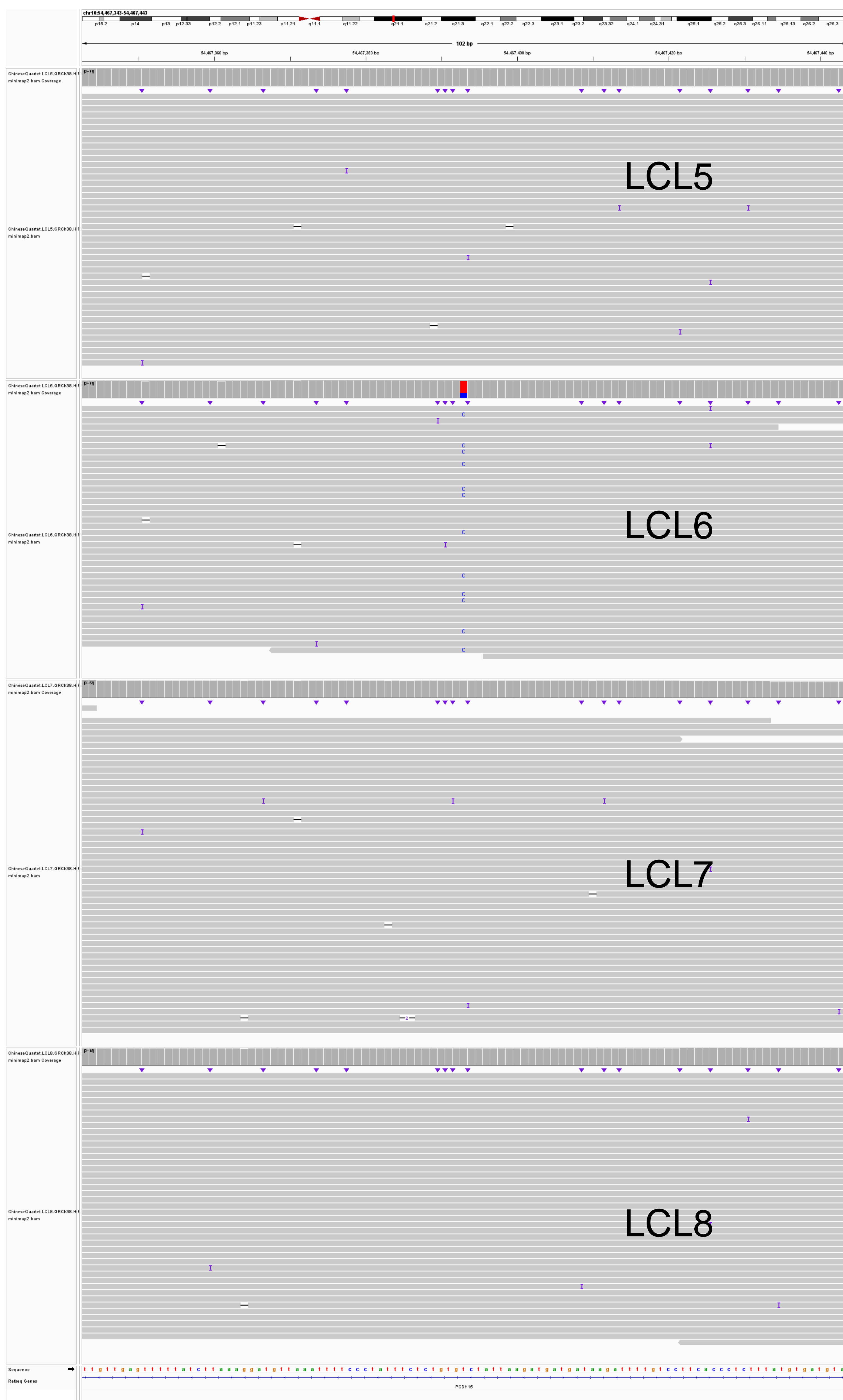
HiFi reads



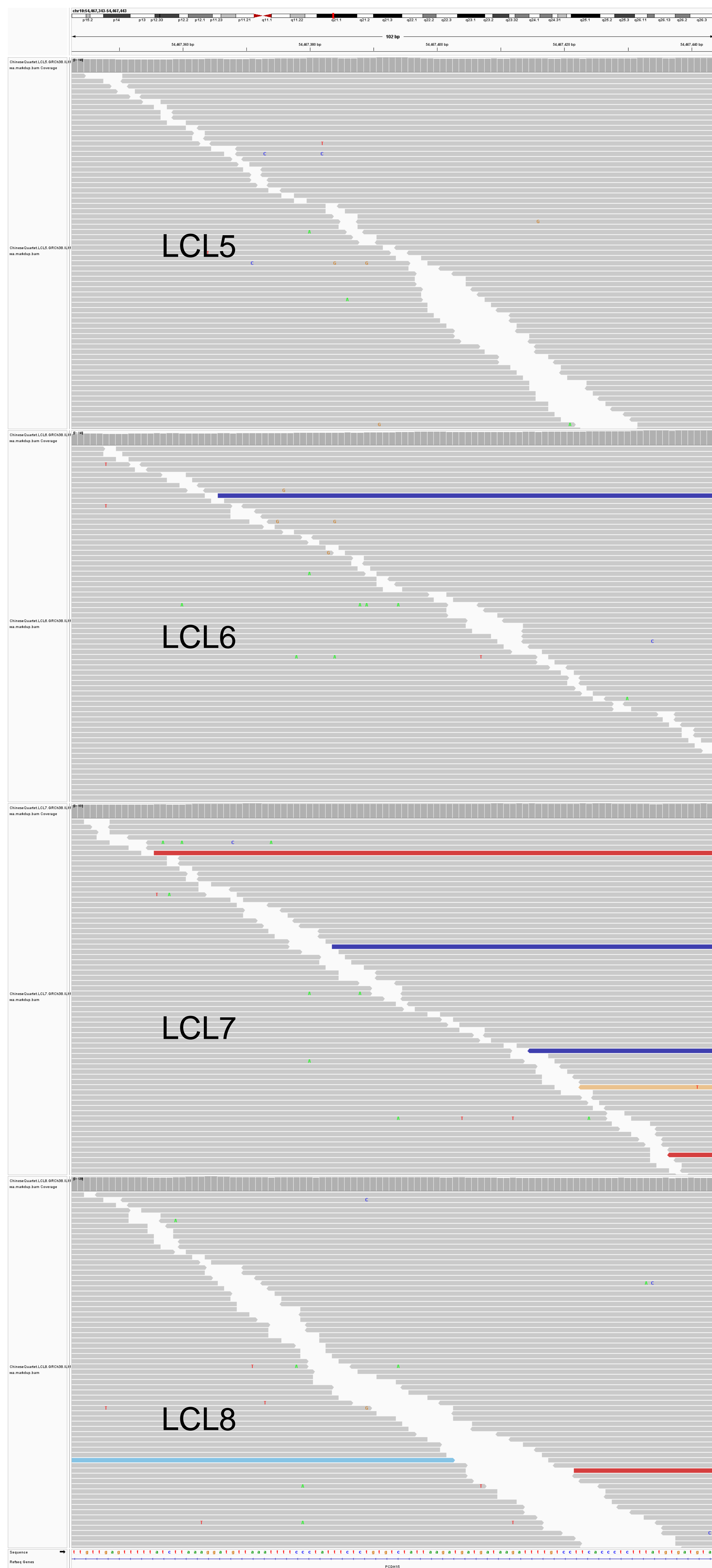
Illumina reads



# POS:chr10:54467393 Report Somatic mutation by HiFi

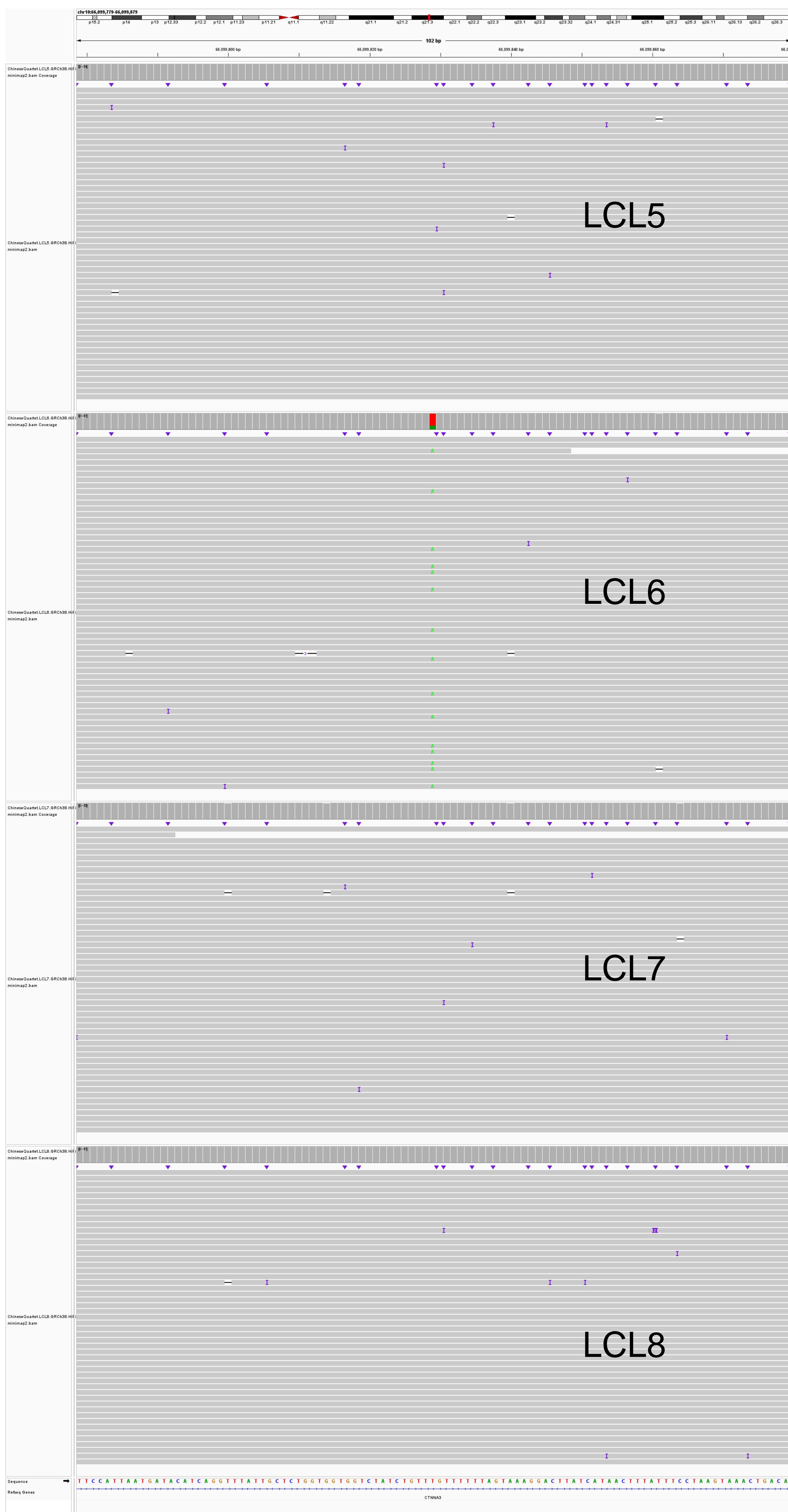


HiFi reads

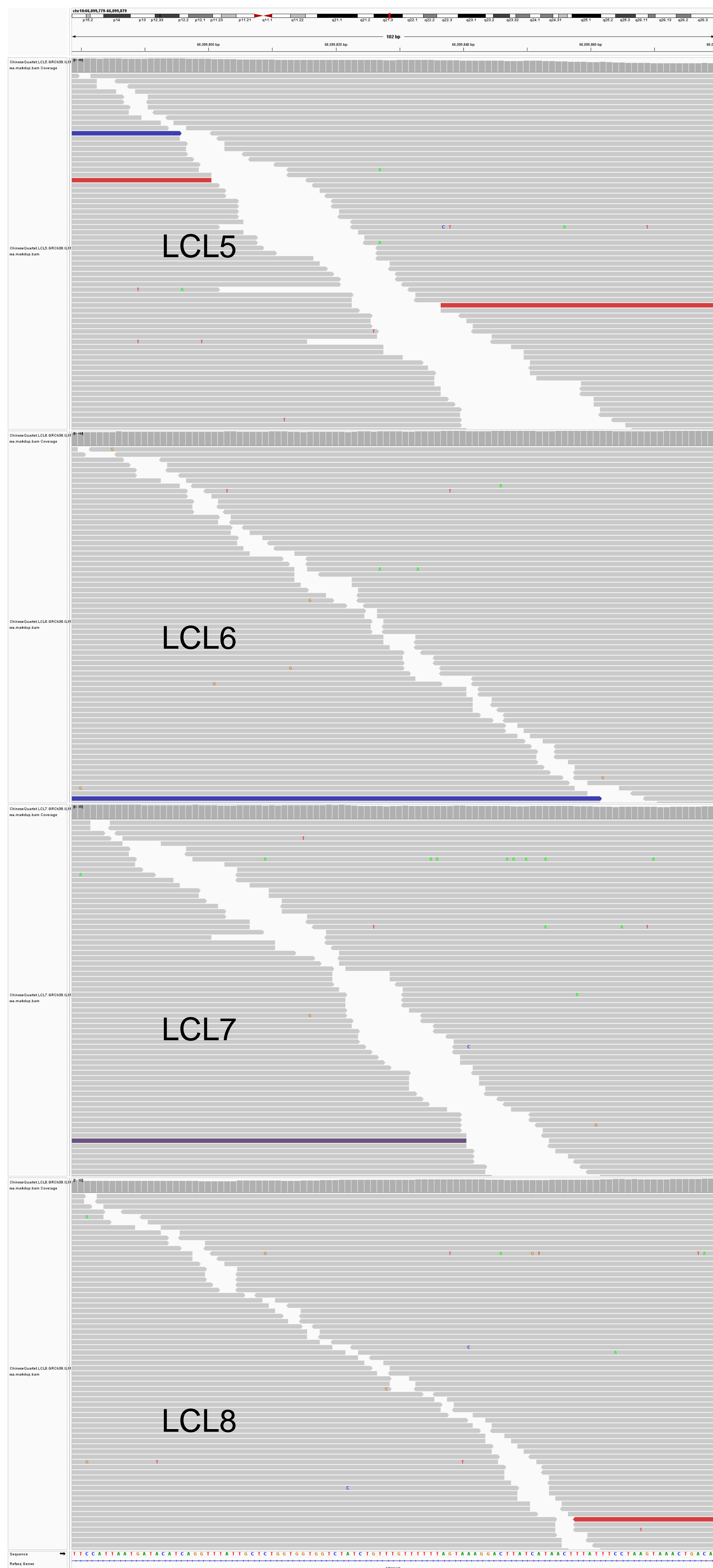


Illumina reads

# POS:chr10:66099829 Report Somatic mutation by HiFi



HiFi reads

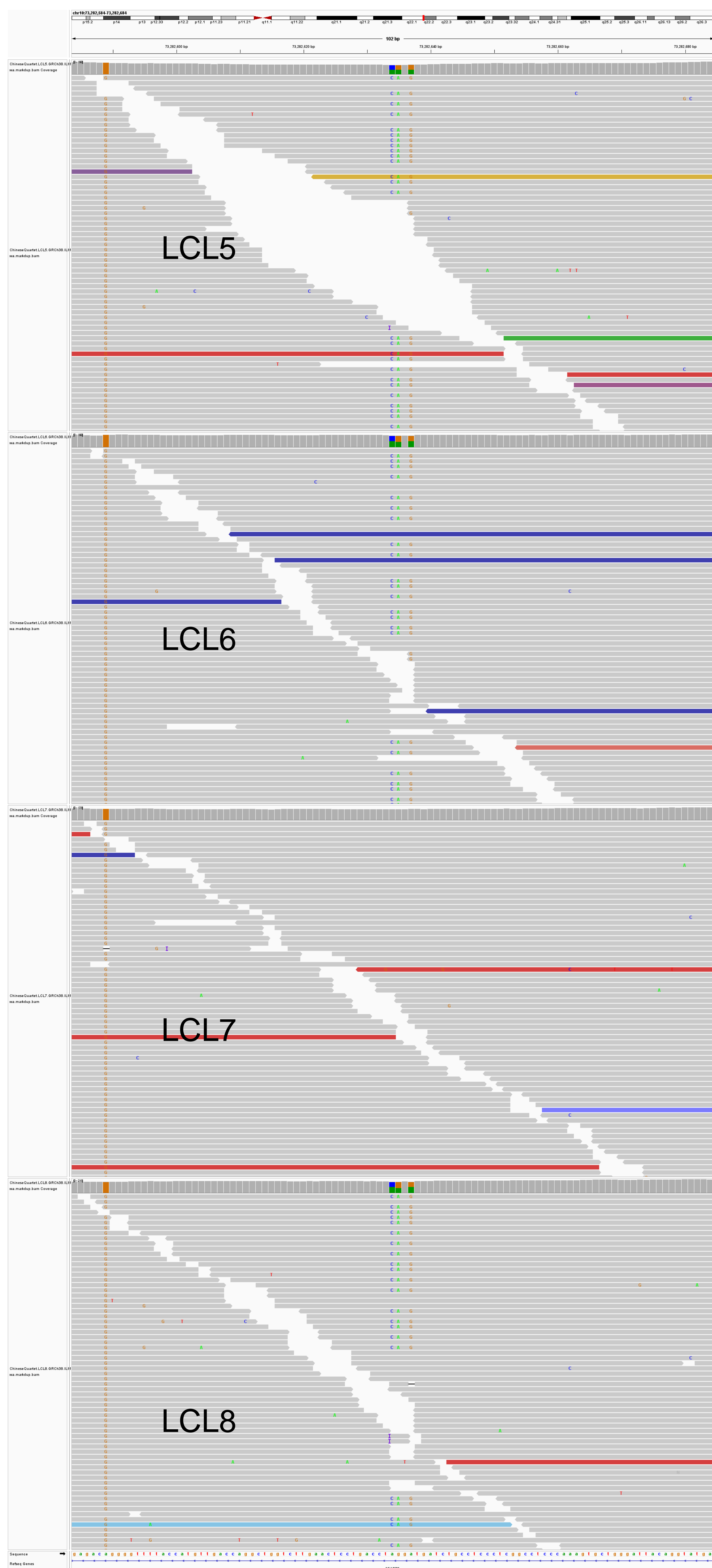


Illumina reads

# POS:chr10:73282634 Report Somatic mutation by ILM



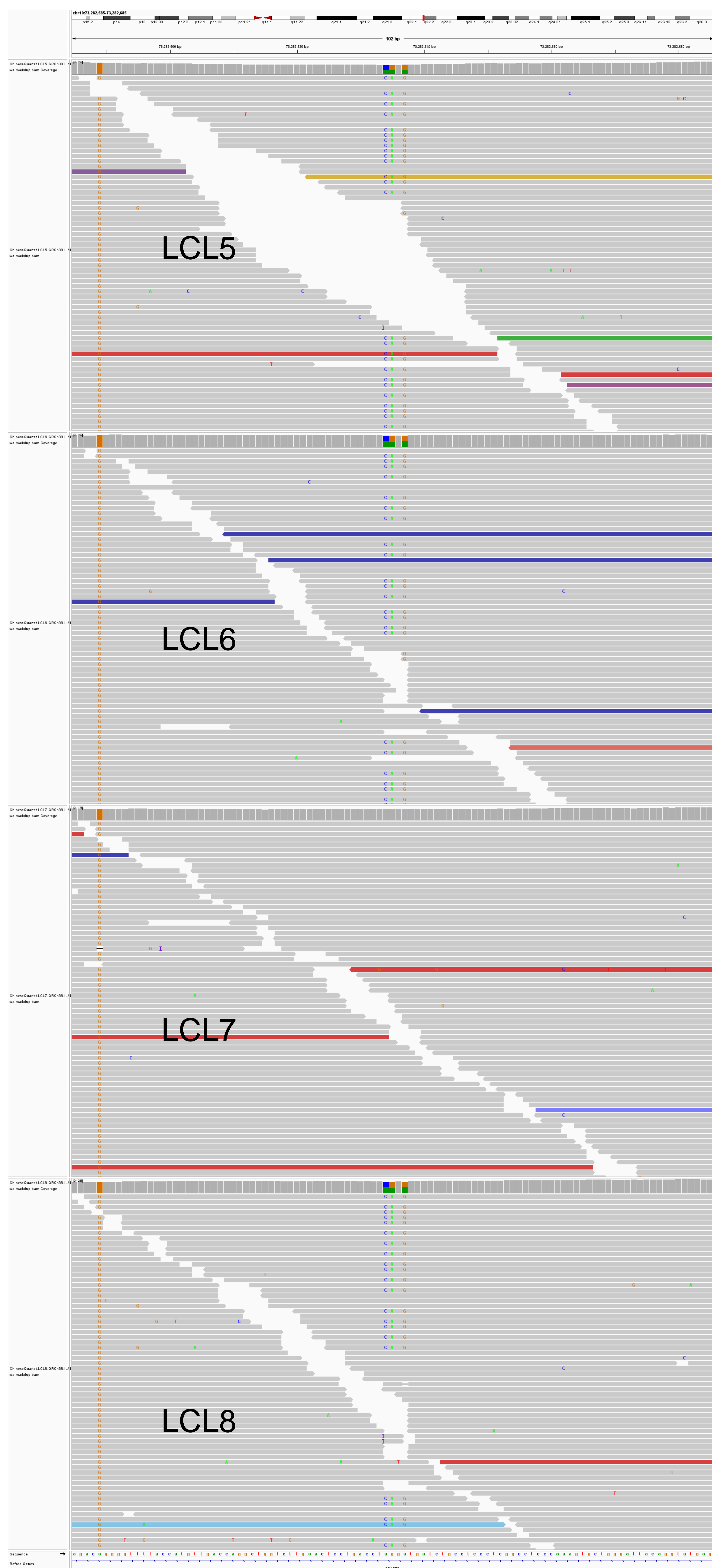
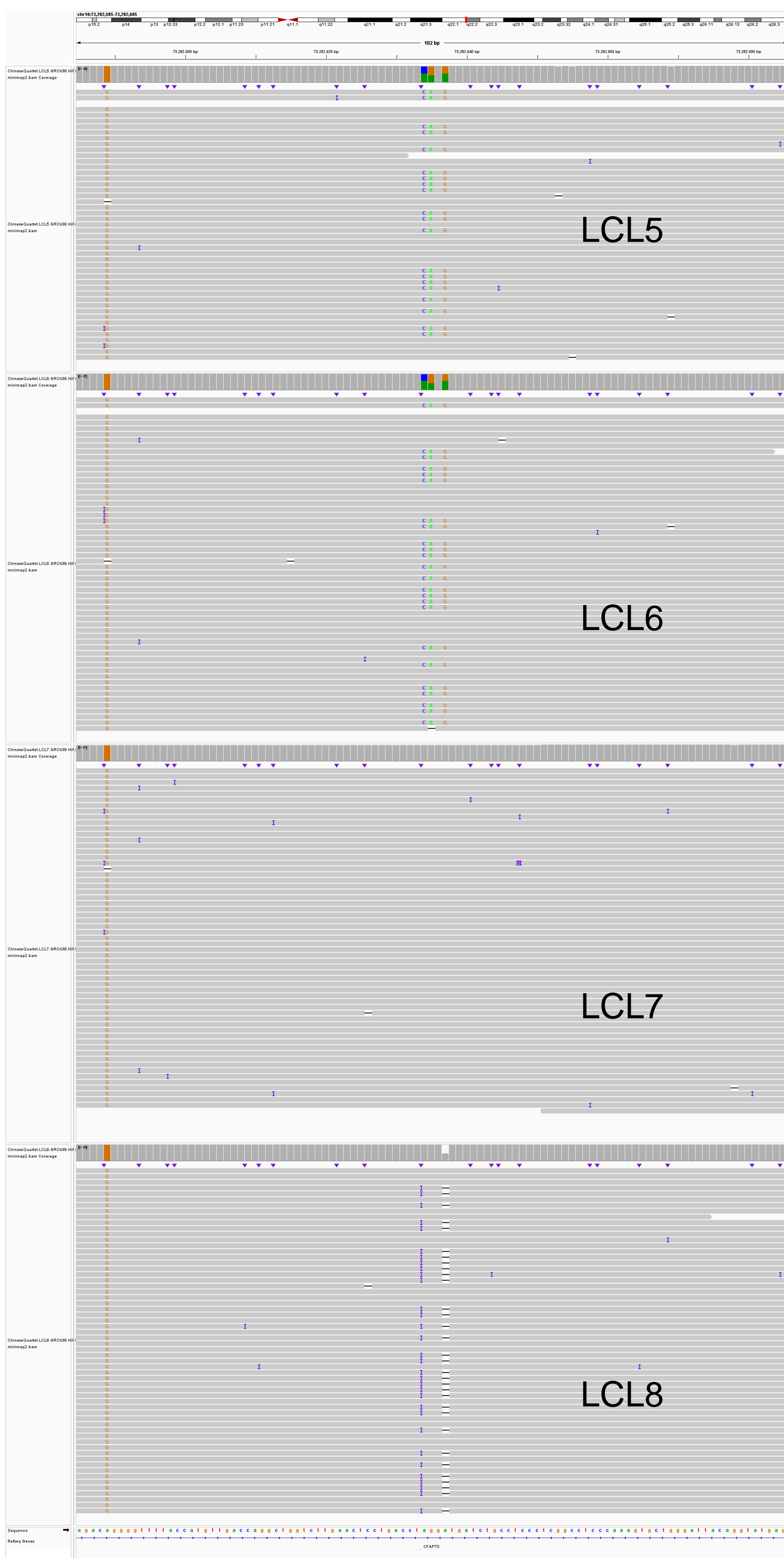
HiFi reads



Illumina reads



# POS:chr10:73282635 Report Somatic mutation by ILM

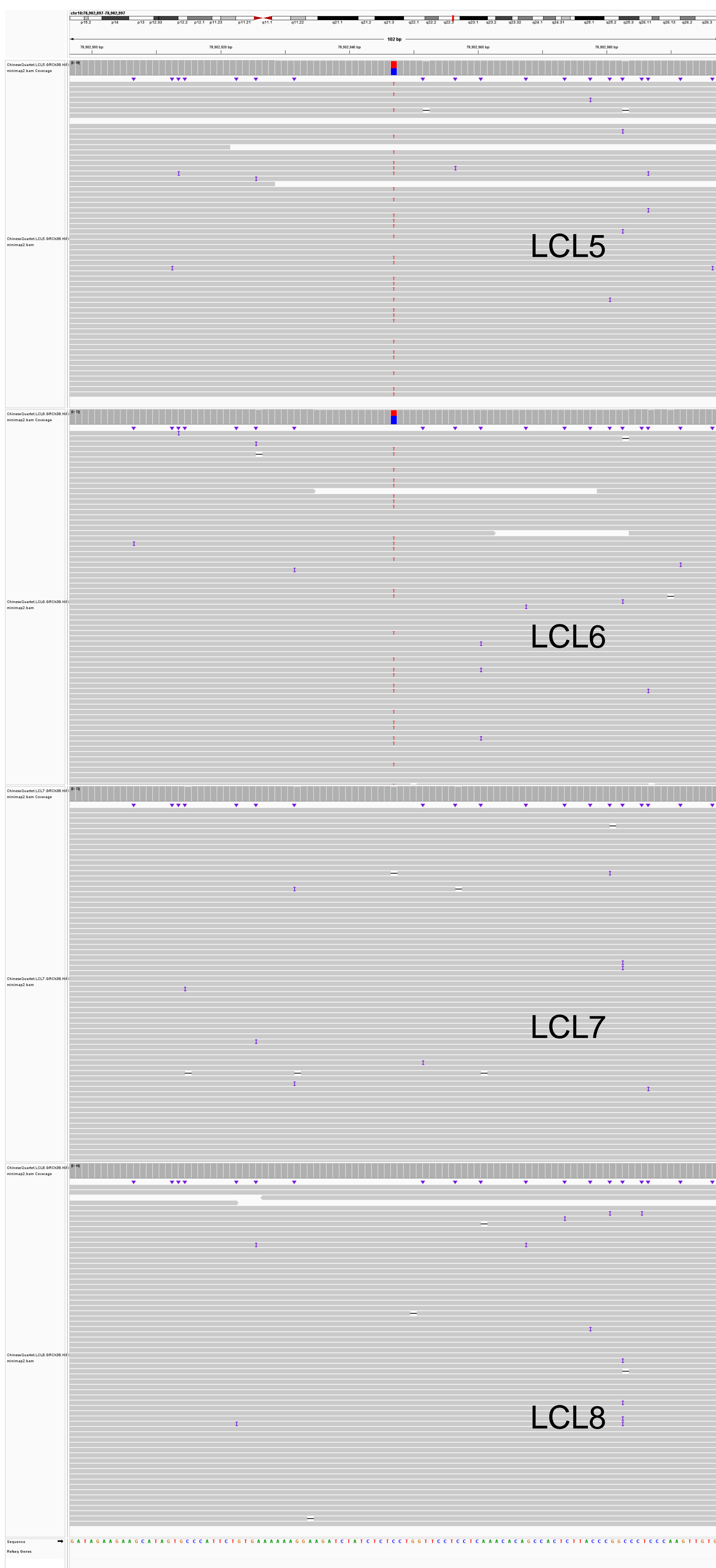


HiFi reads

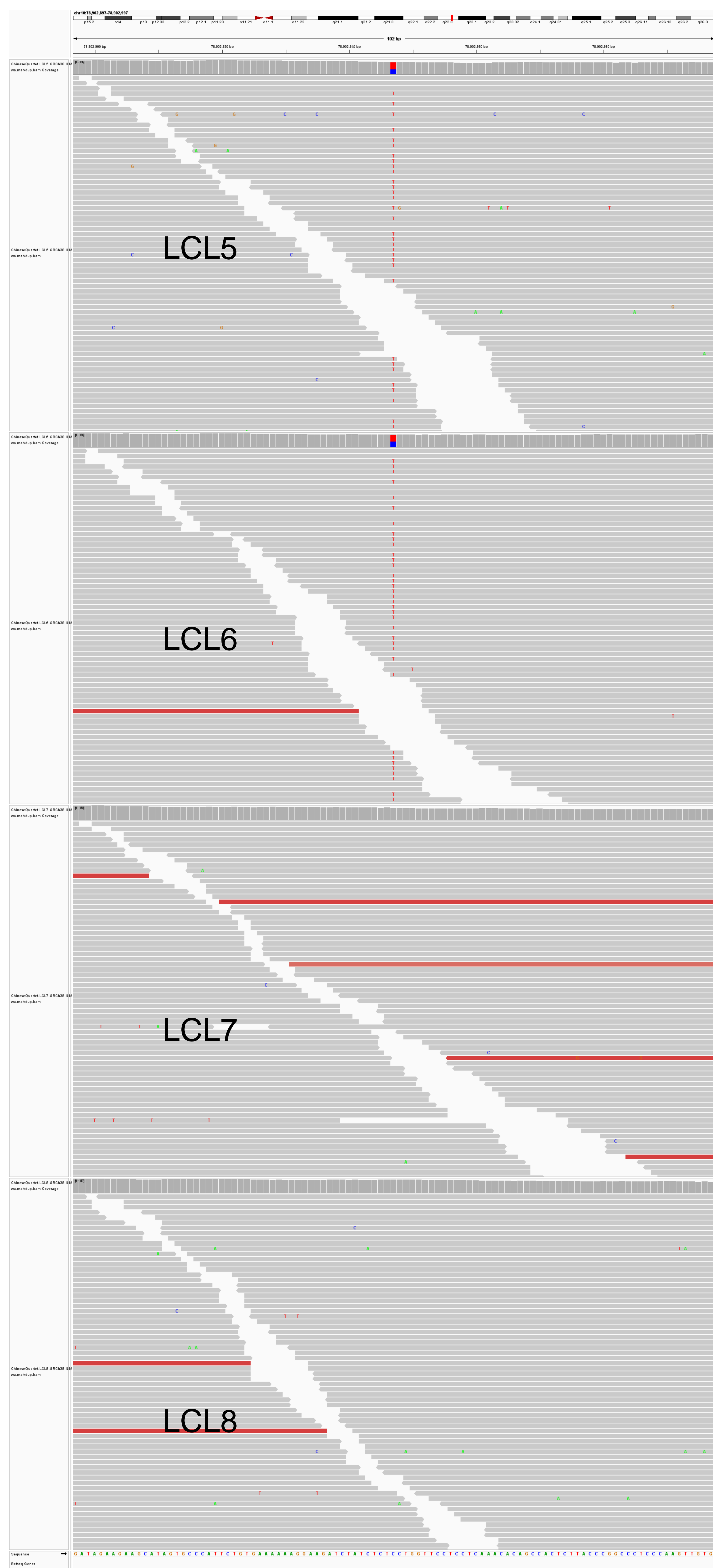
Illumina reads



# POS:chr10:78902947 Report DeNovo mutation by ILM

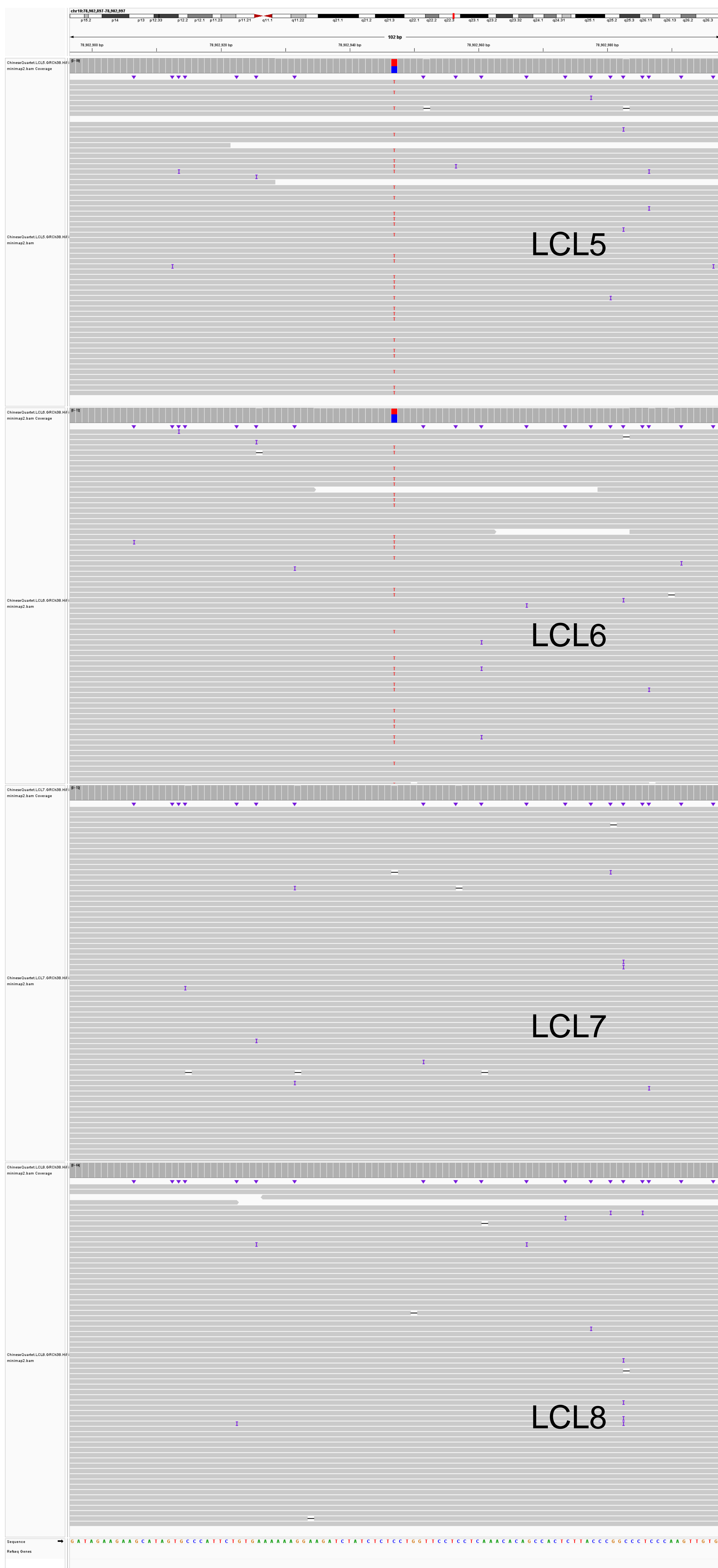


HiFi reads

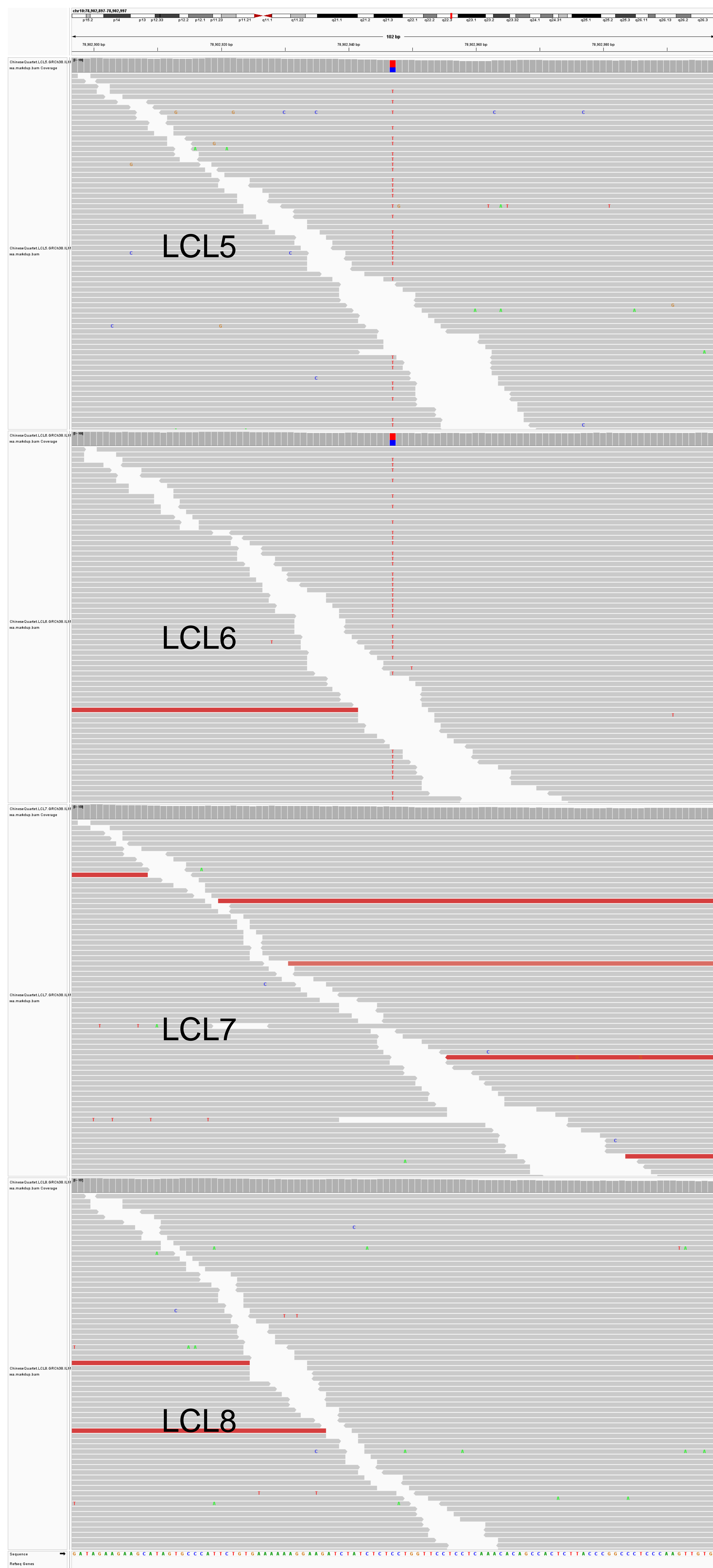


Illumina reads

# POS:chr10:78902947 Report DeNovo mutation by HiFi



HiFi reads

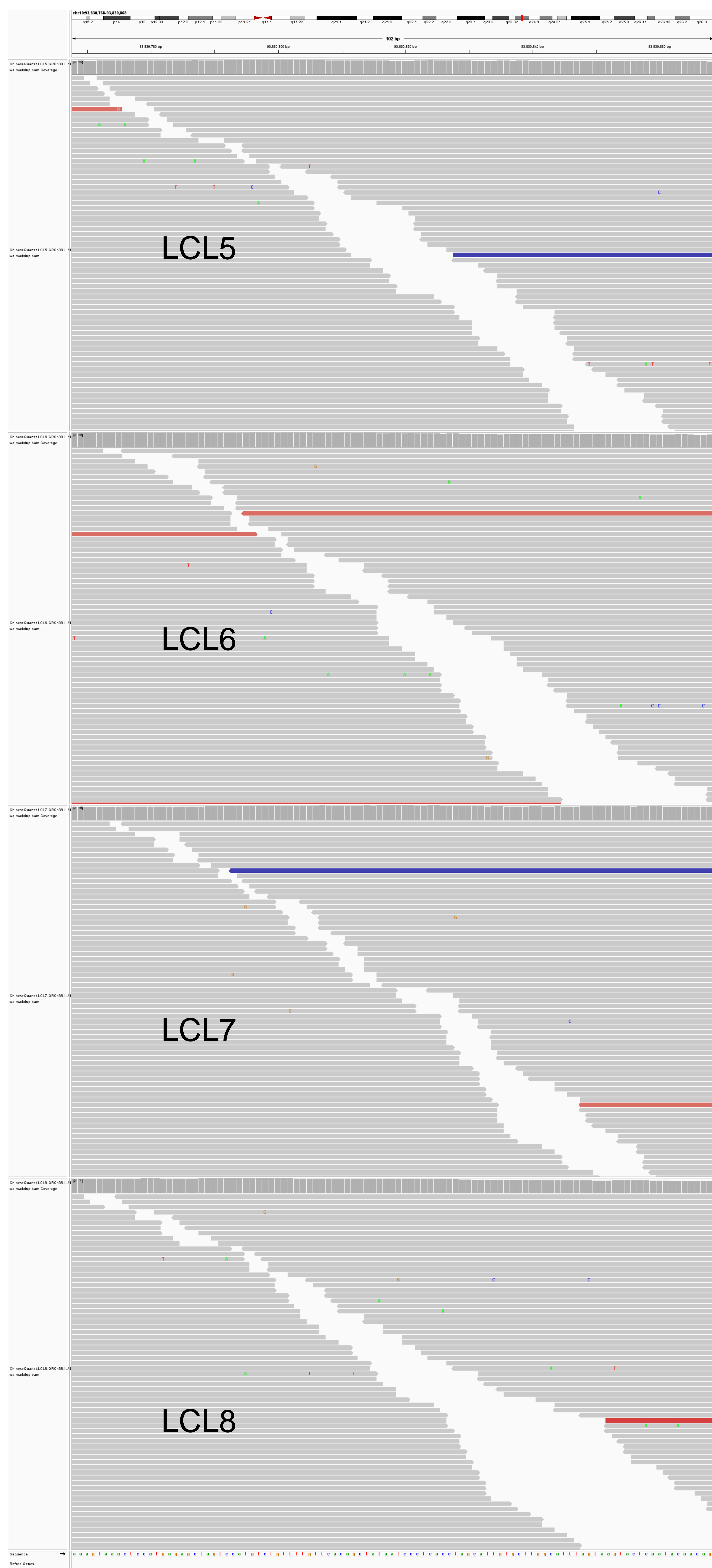


Illumina reads

# POS:chr10:93830818 Report Somatic mutation by HiFi



HiFi reads

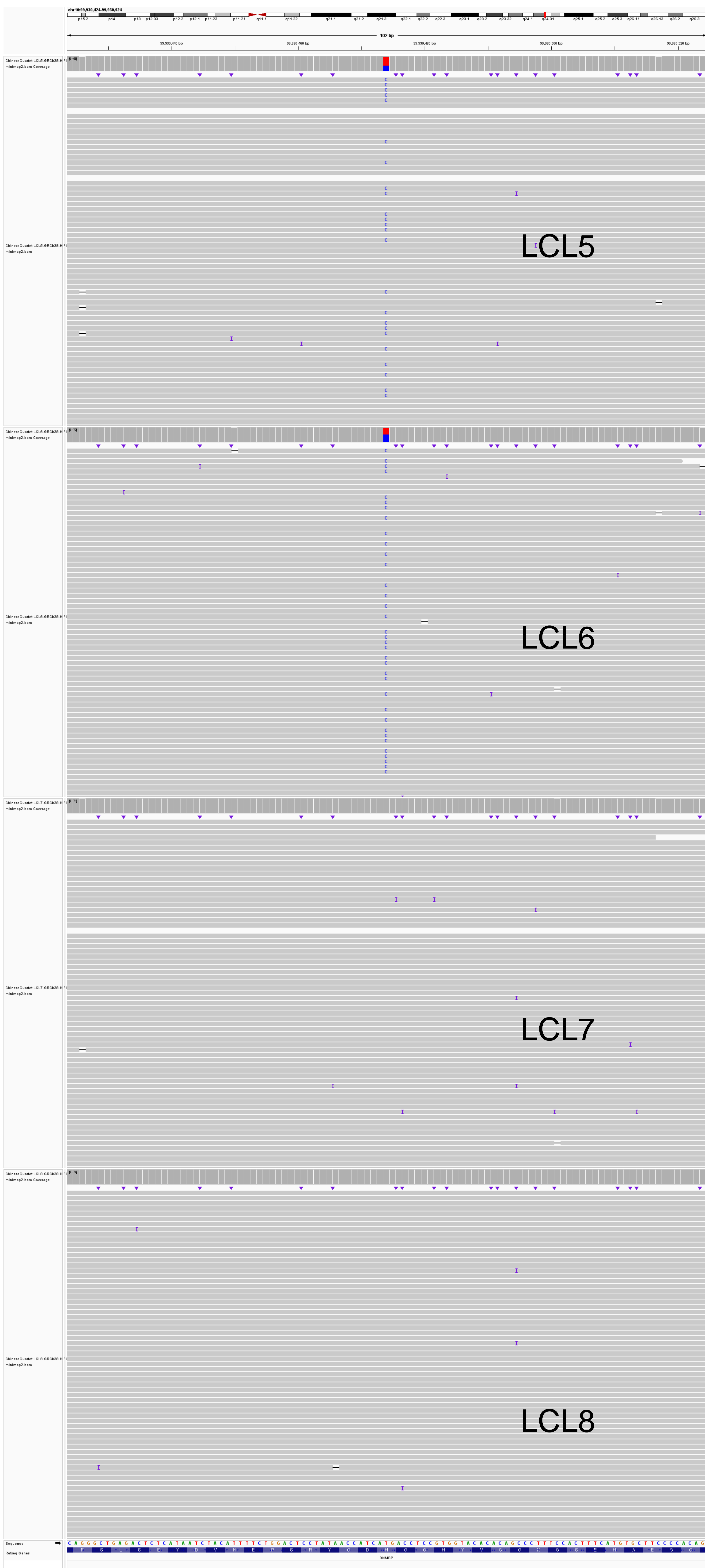


Illumina reads

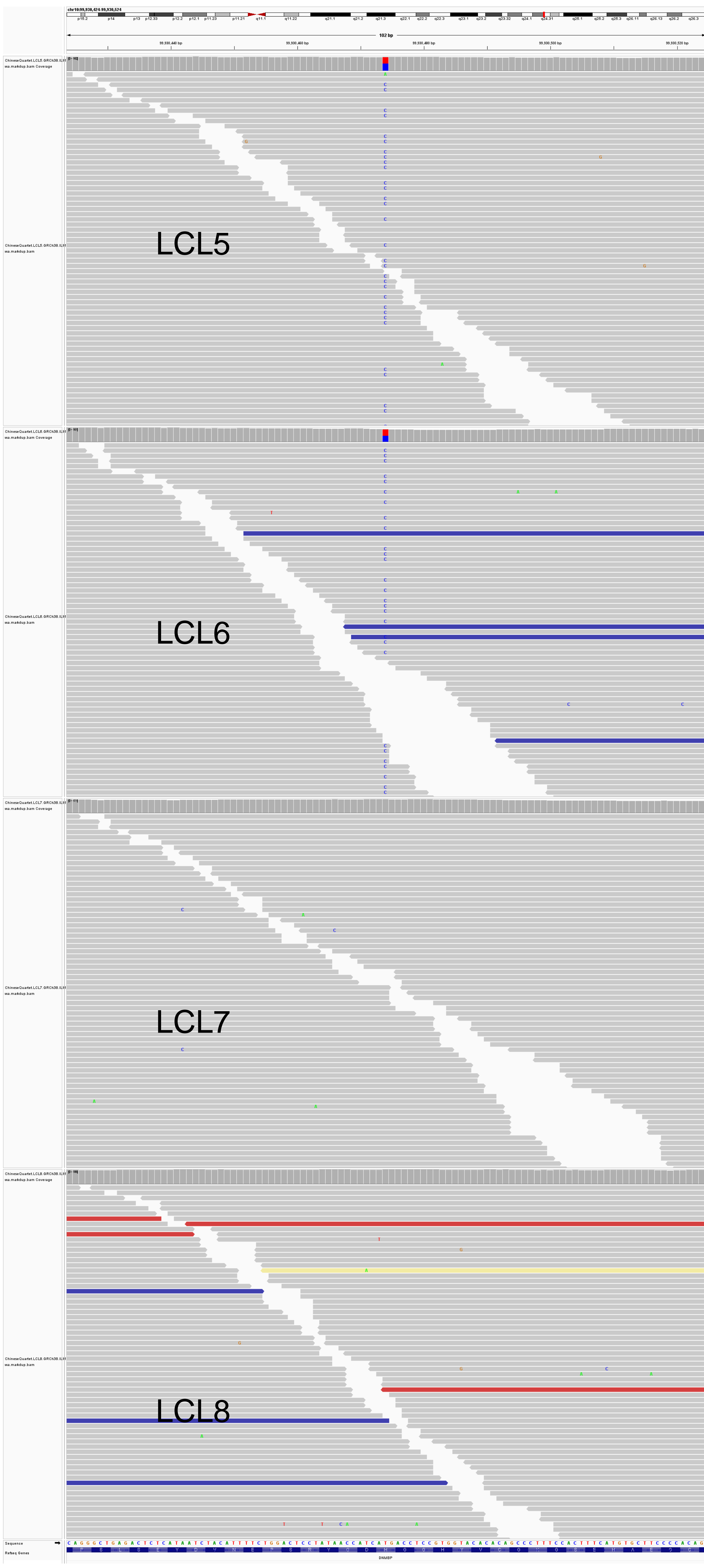




# POS:chr10:99930474 Report DeNovo mutation by ILM

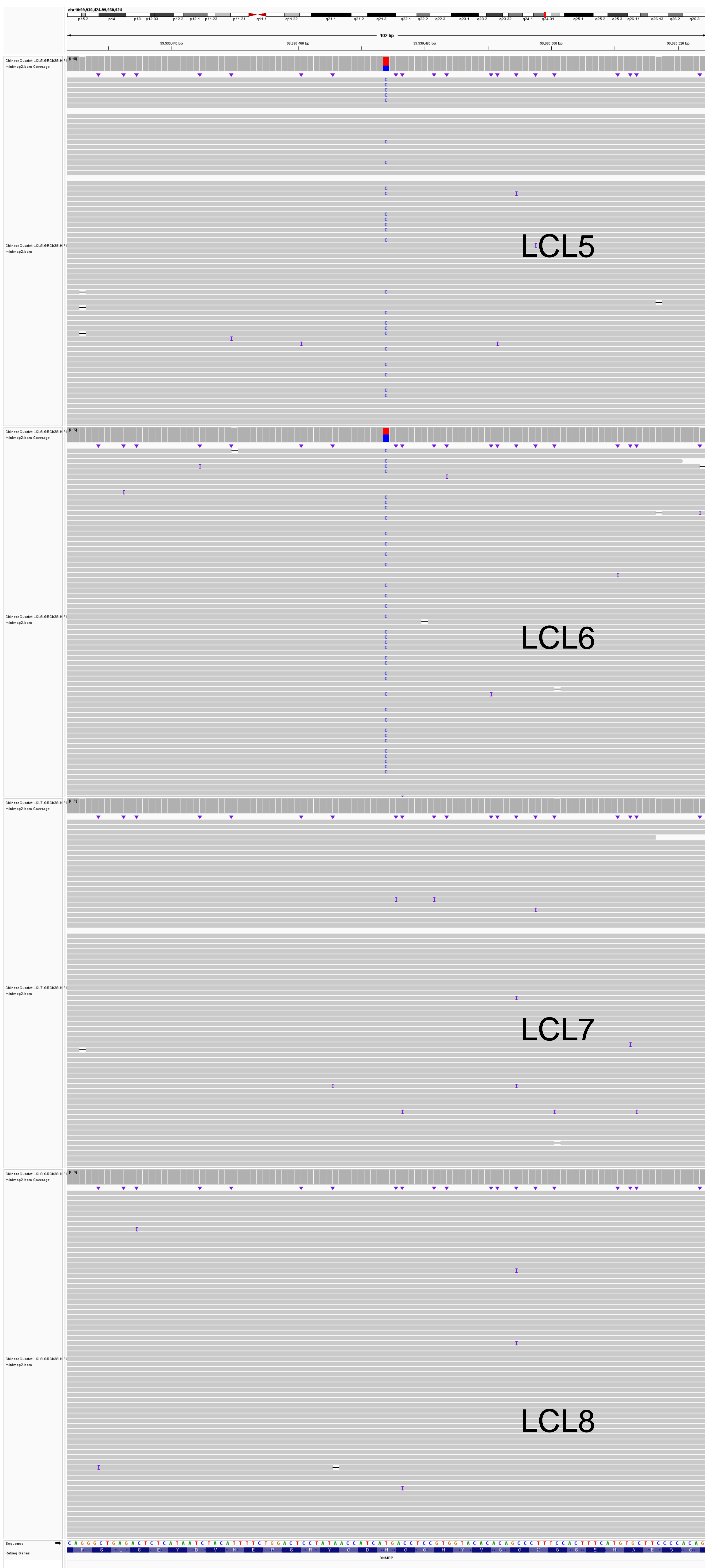


HiFi reads

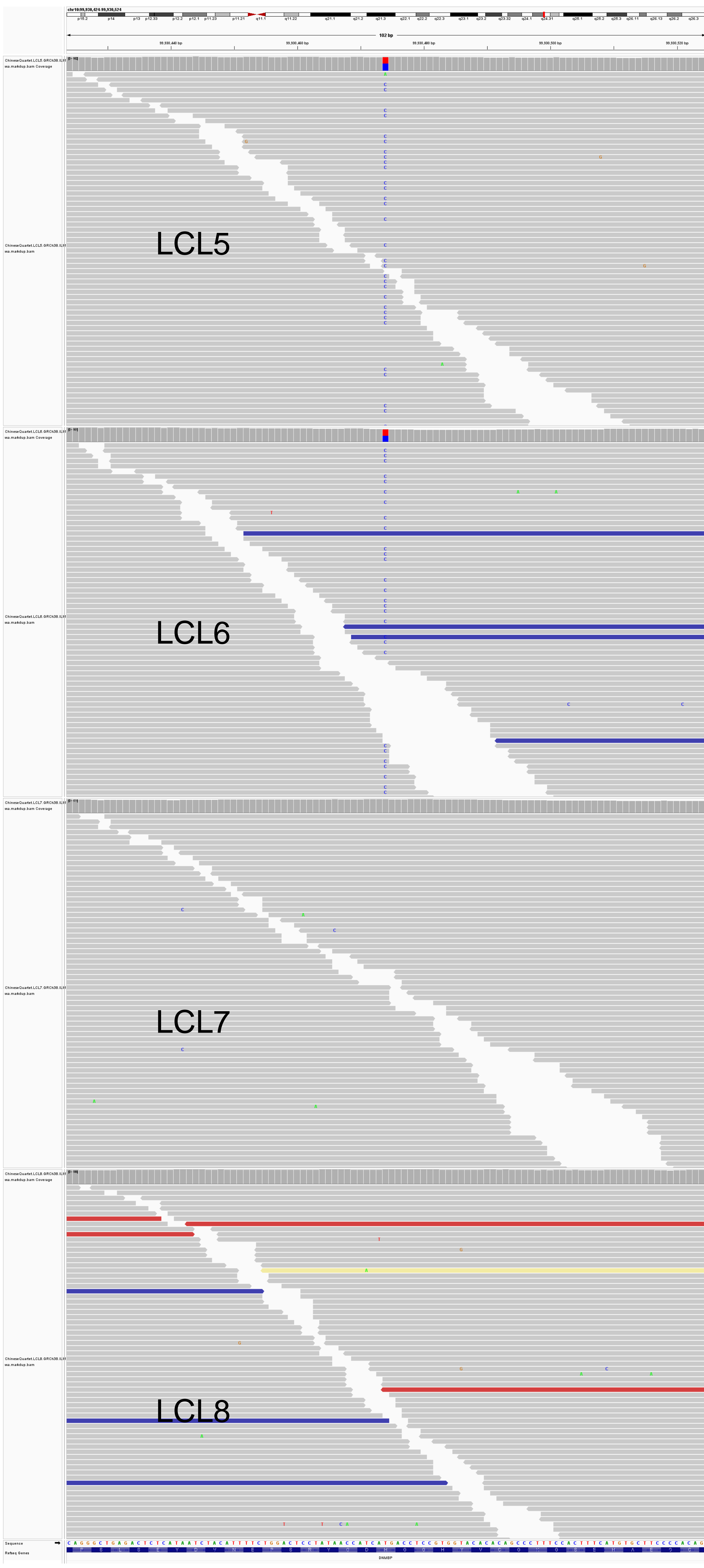


Illumina reads

# POS:chr10:99930474 Report DeNovo mutation by HiFi



HiFi reads

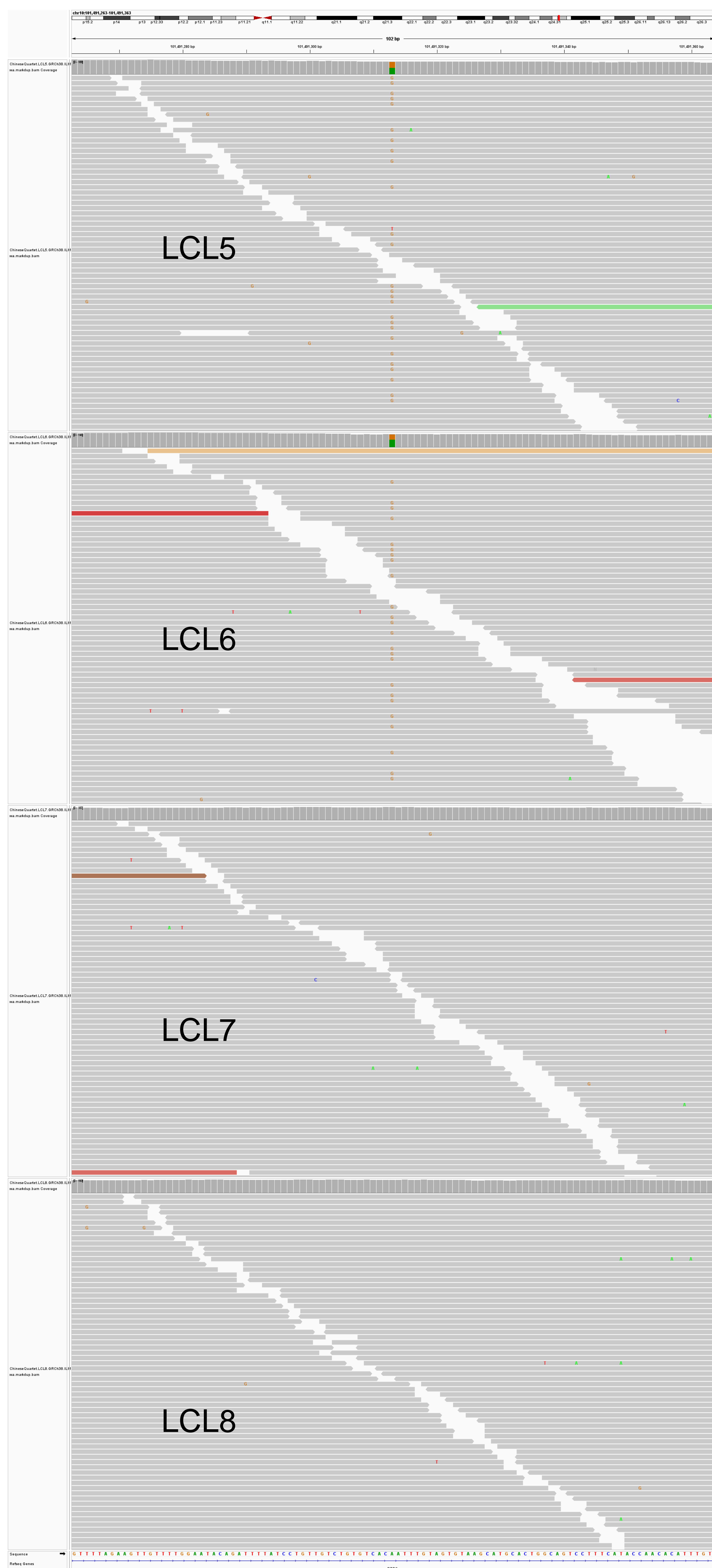


Illumina reads

# POS:chr10:101491313 Report DeNovo mutation by ILM



HiFi reads

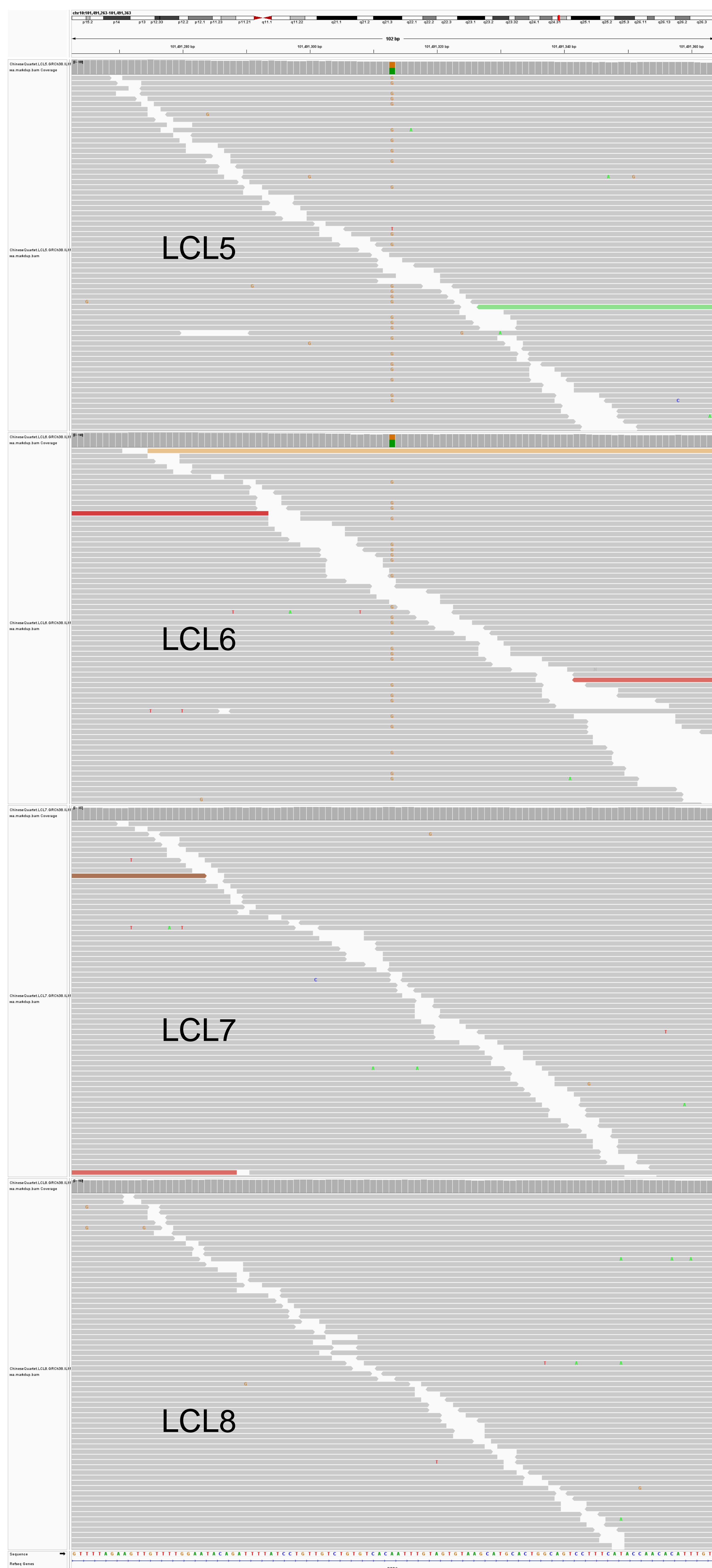


Illumina reads

# POS:chr10:101491313 Report DeNovo mutation by HiFi



HiFi reads

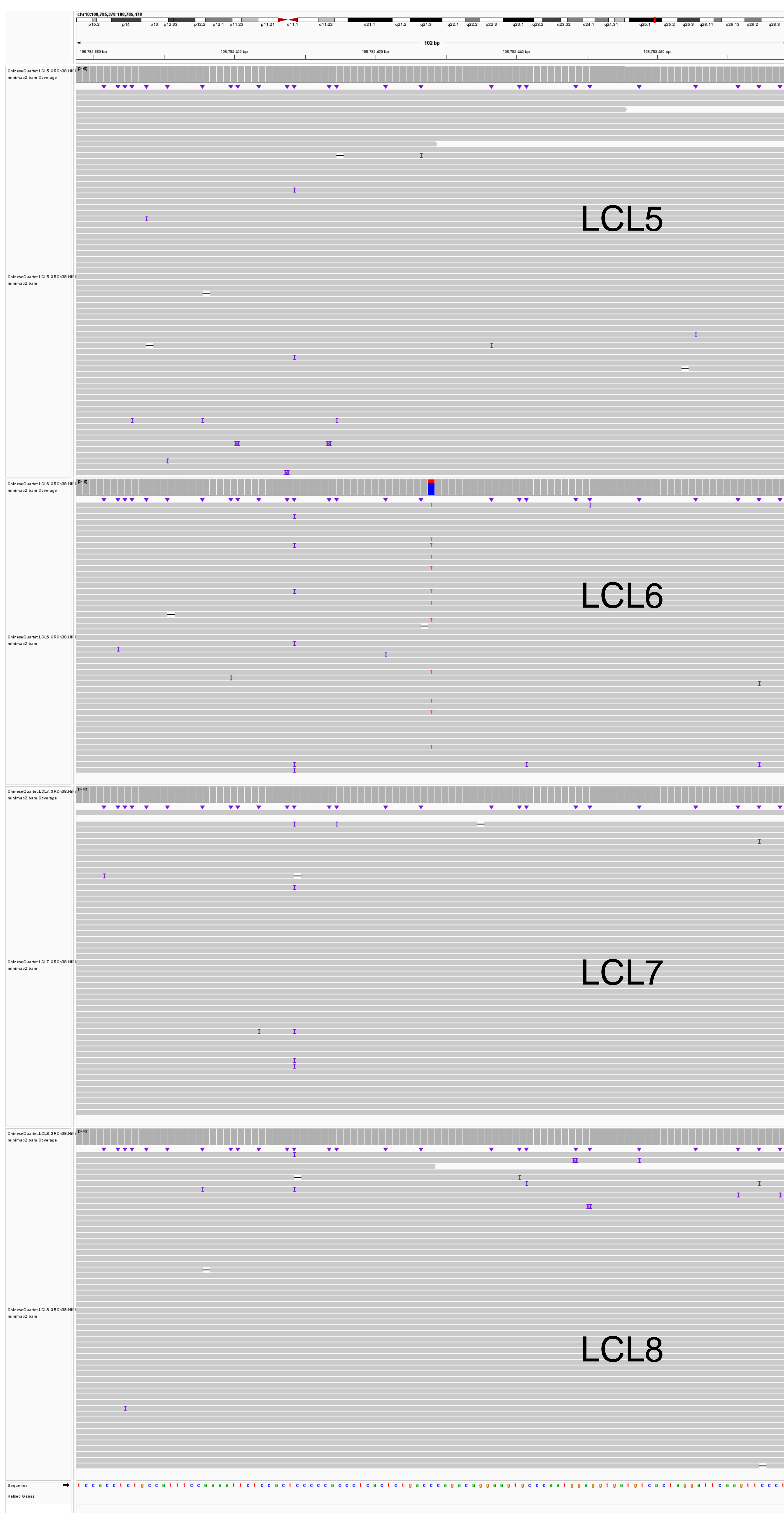


Illumina reads

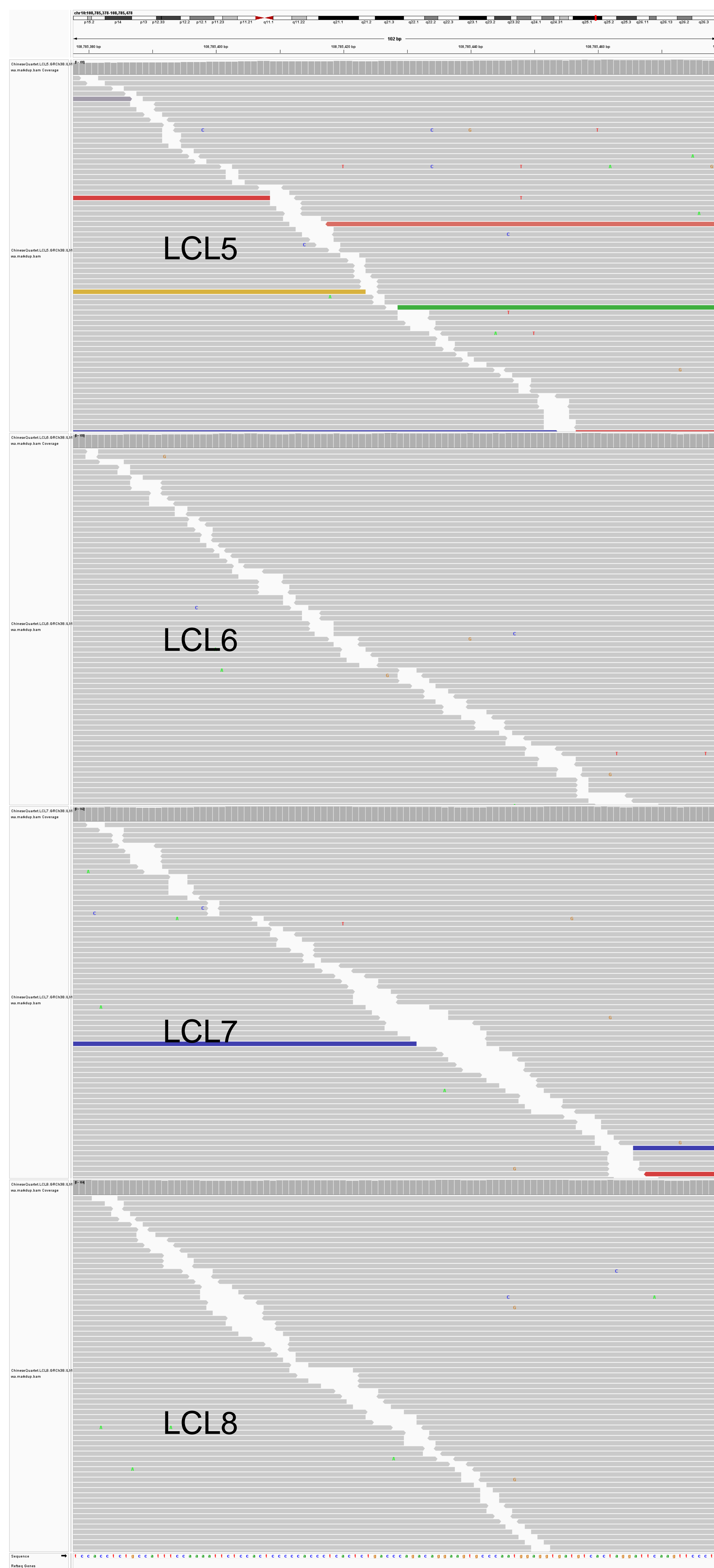




# POS:chr10:108785428 Report Somatic mutation by HiFi

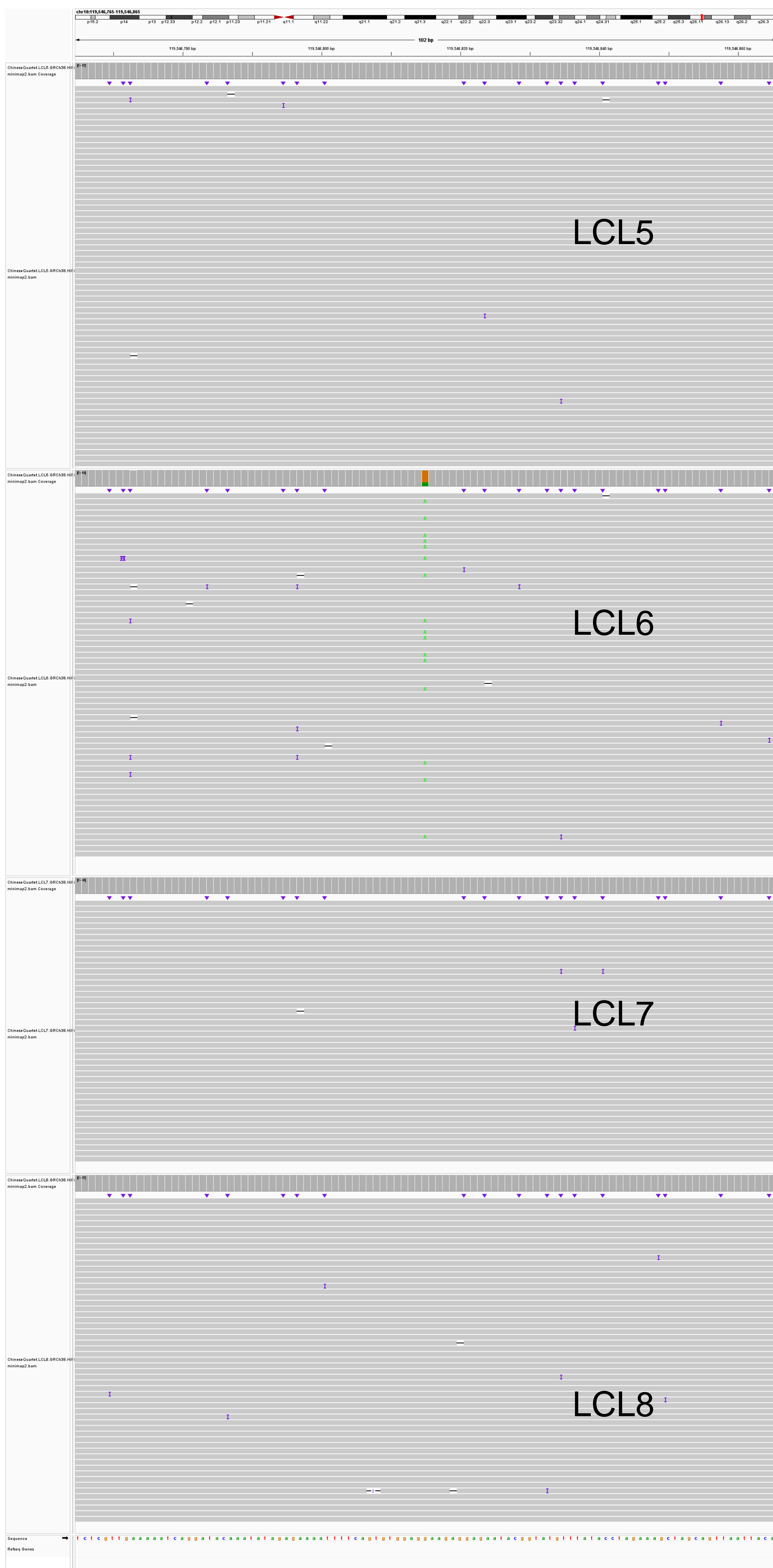


HiFi reads

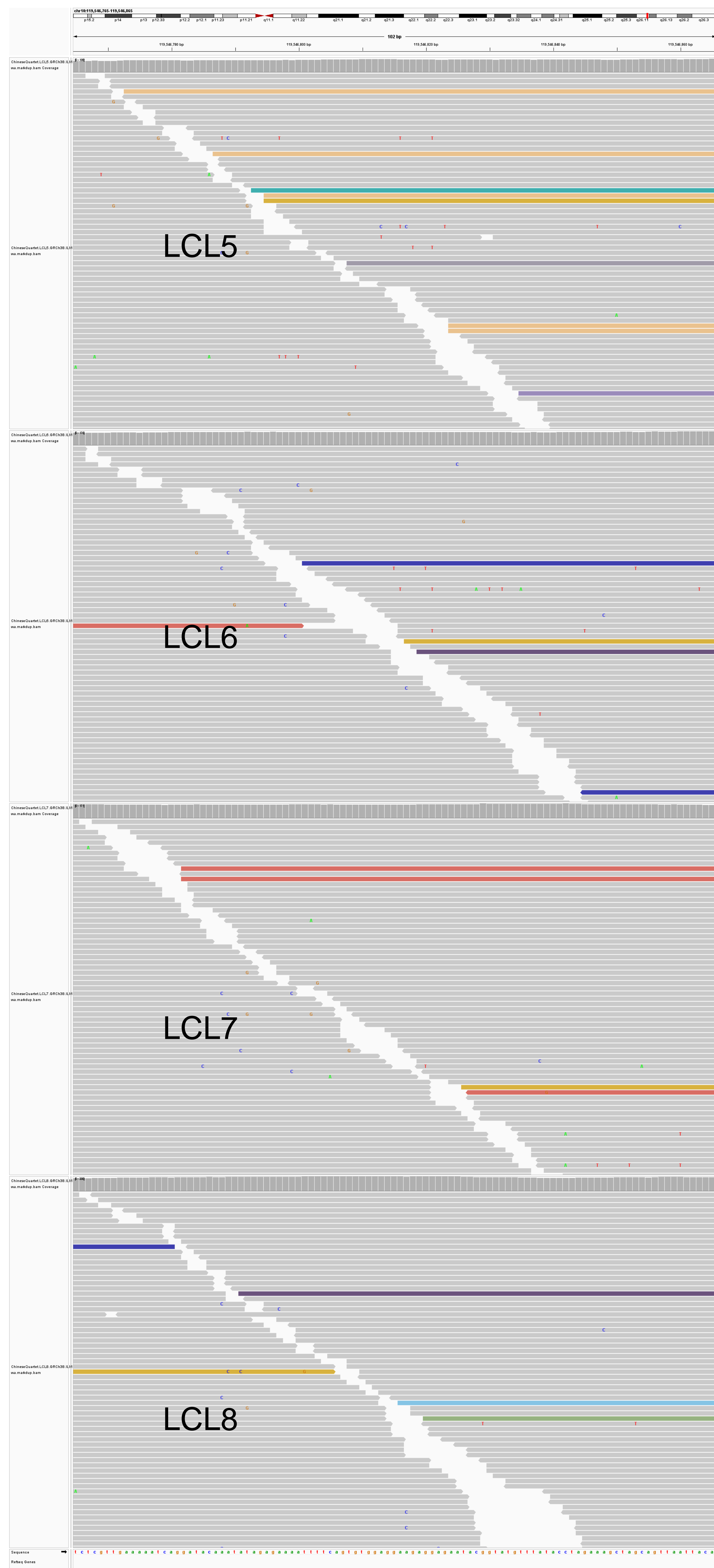


Illumina reads

POS:chr10:119546815 Report Somatic mutation by HiFi

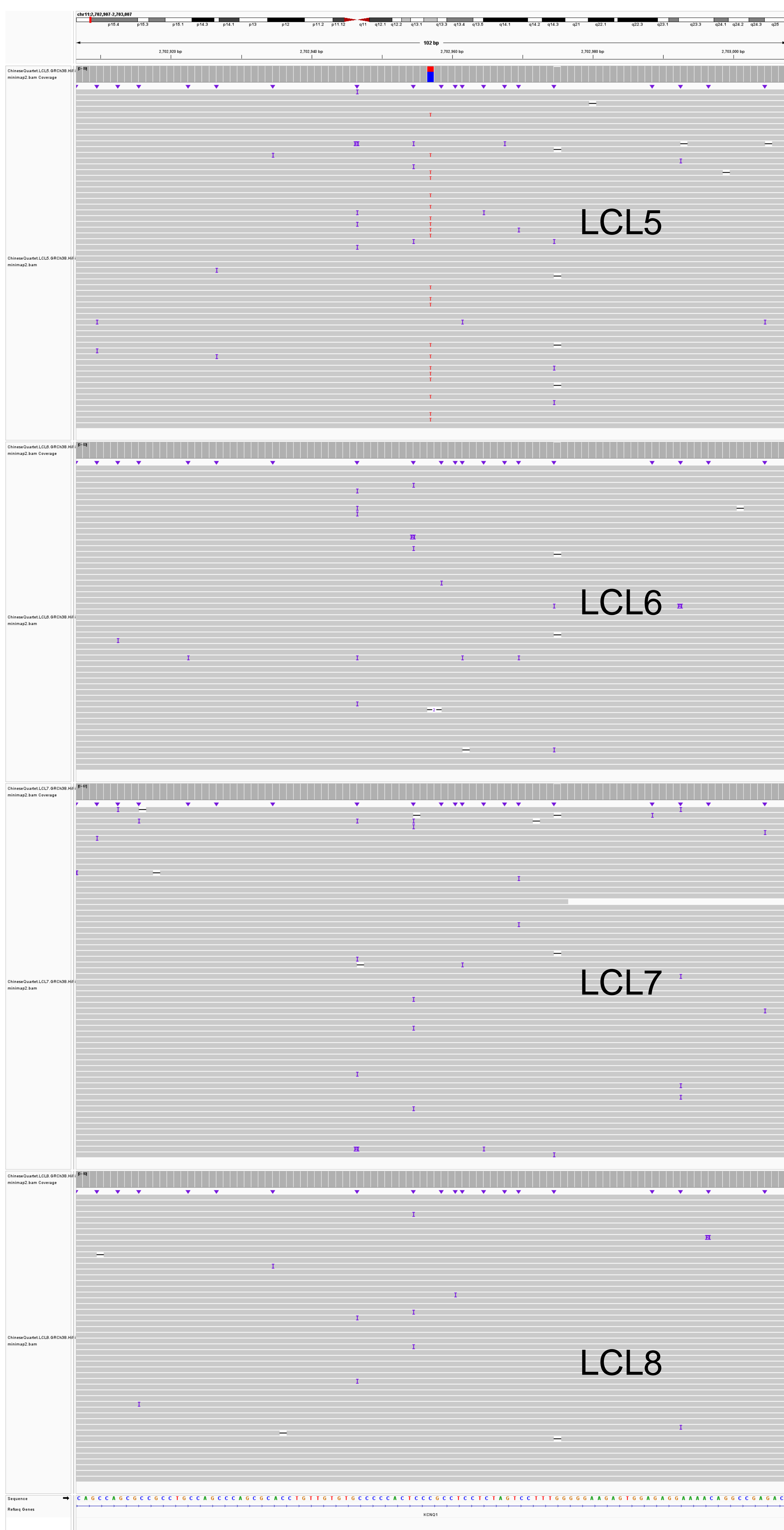


HiFi reads

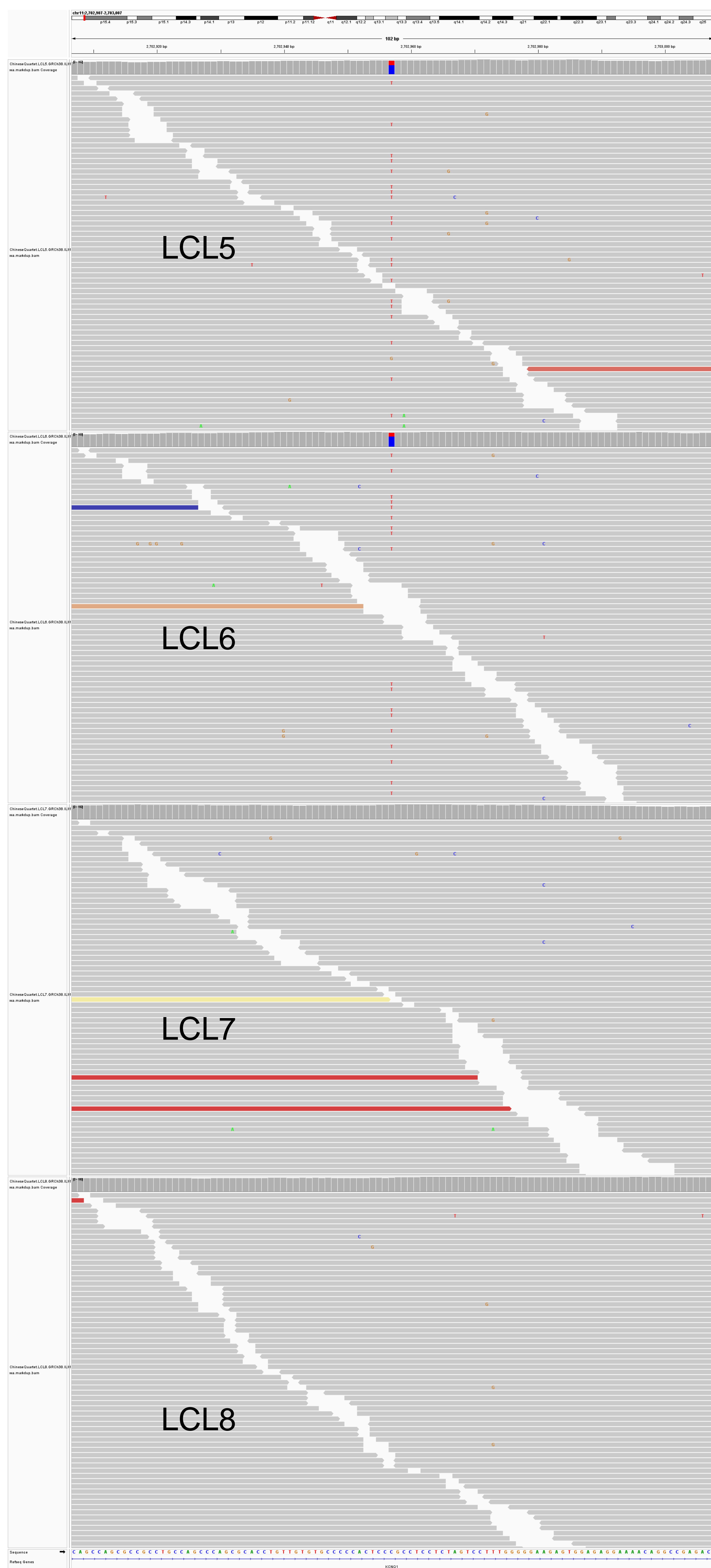


Illumina reads

# POS:chr11:2702957 Report DeNovo mutation by ILM



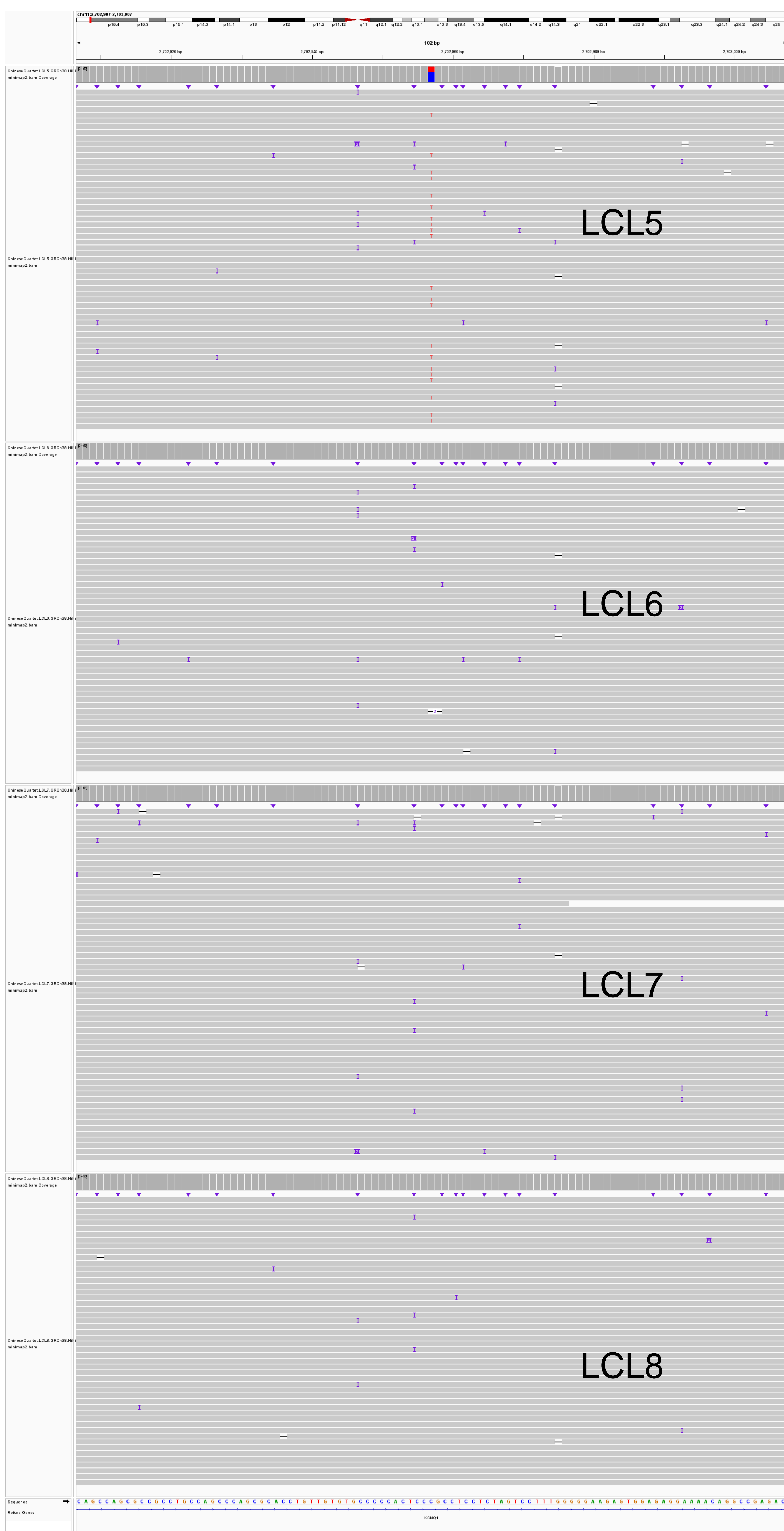
HiFi reads



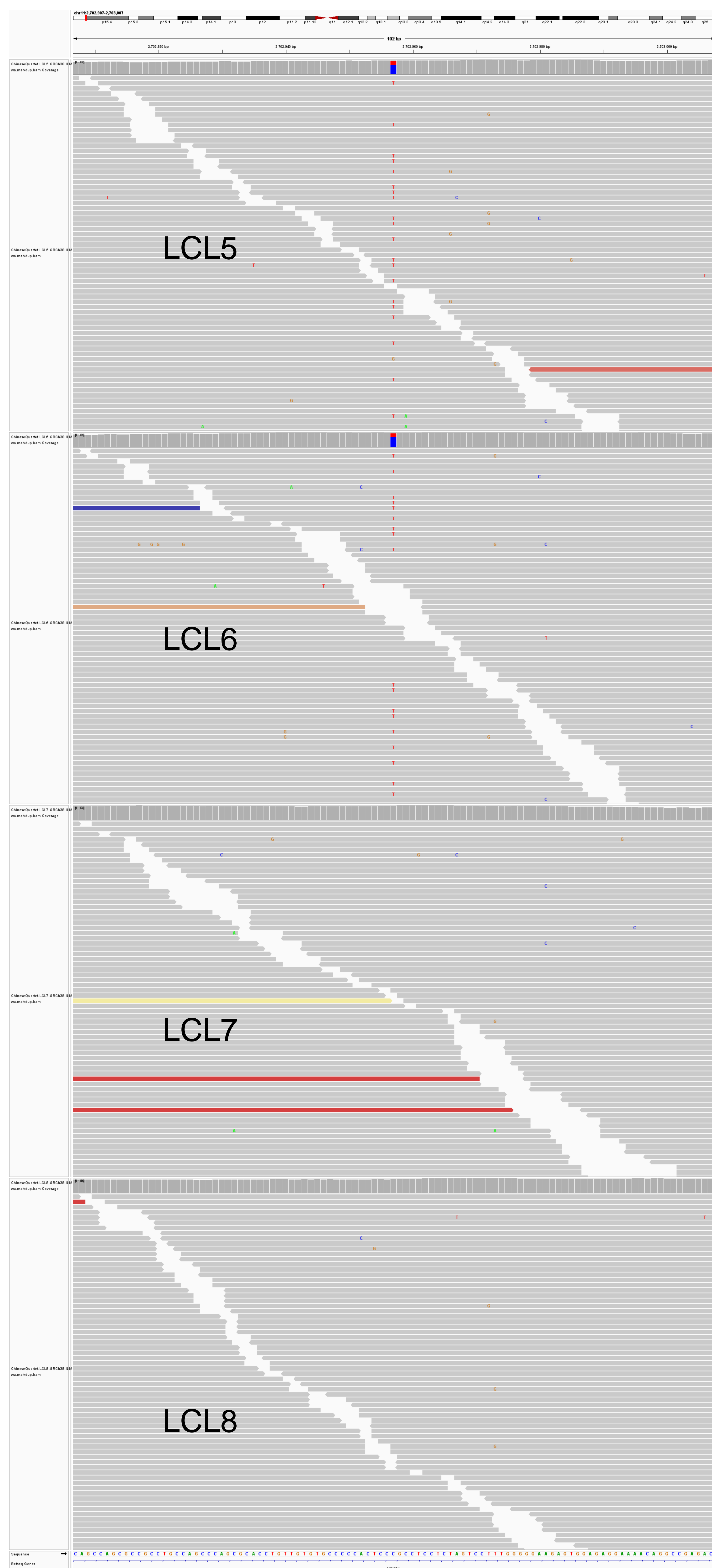
Illumina reads



# POS:chr11:2702957 Report Somatic mutation by HiFi

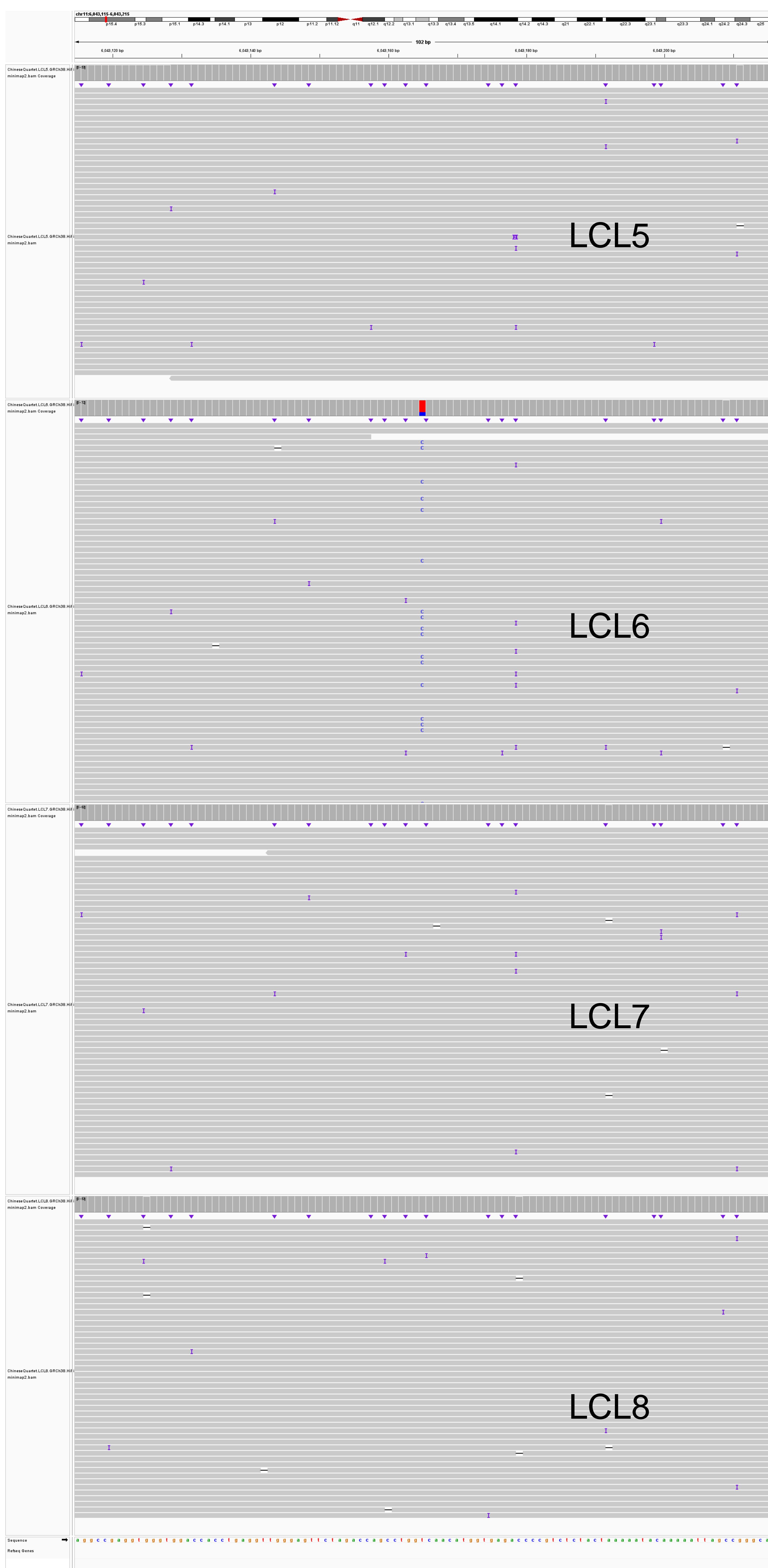


HiFi reads

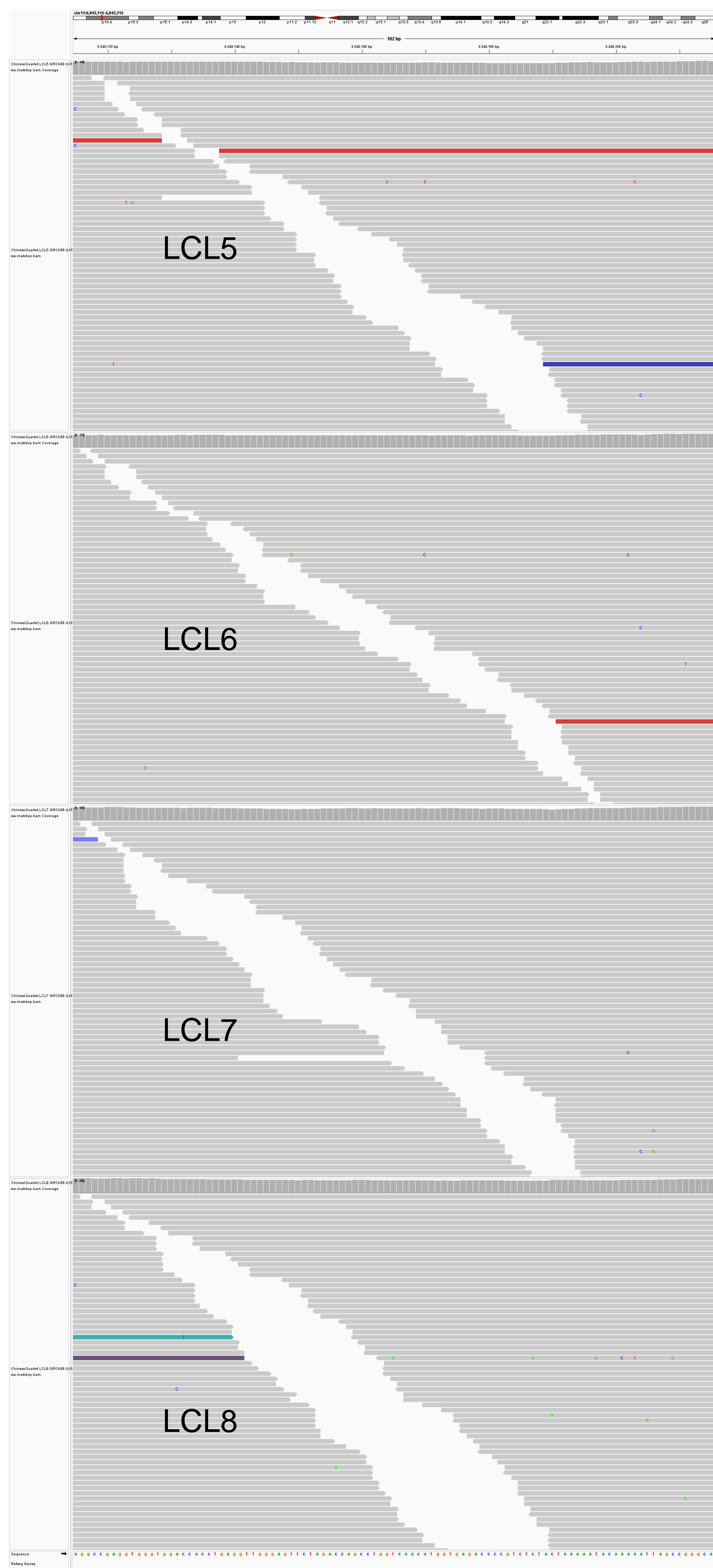


Illumina reads

# POS:chr11:6043165 Report Somatic mutation by HiFi



HiFi reads



Illumina reads

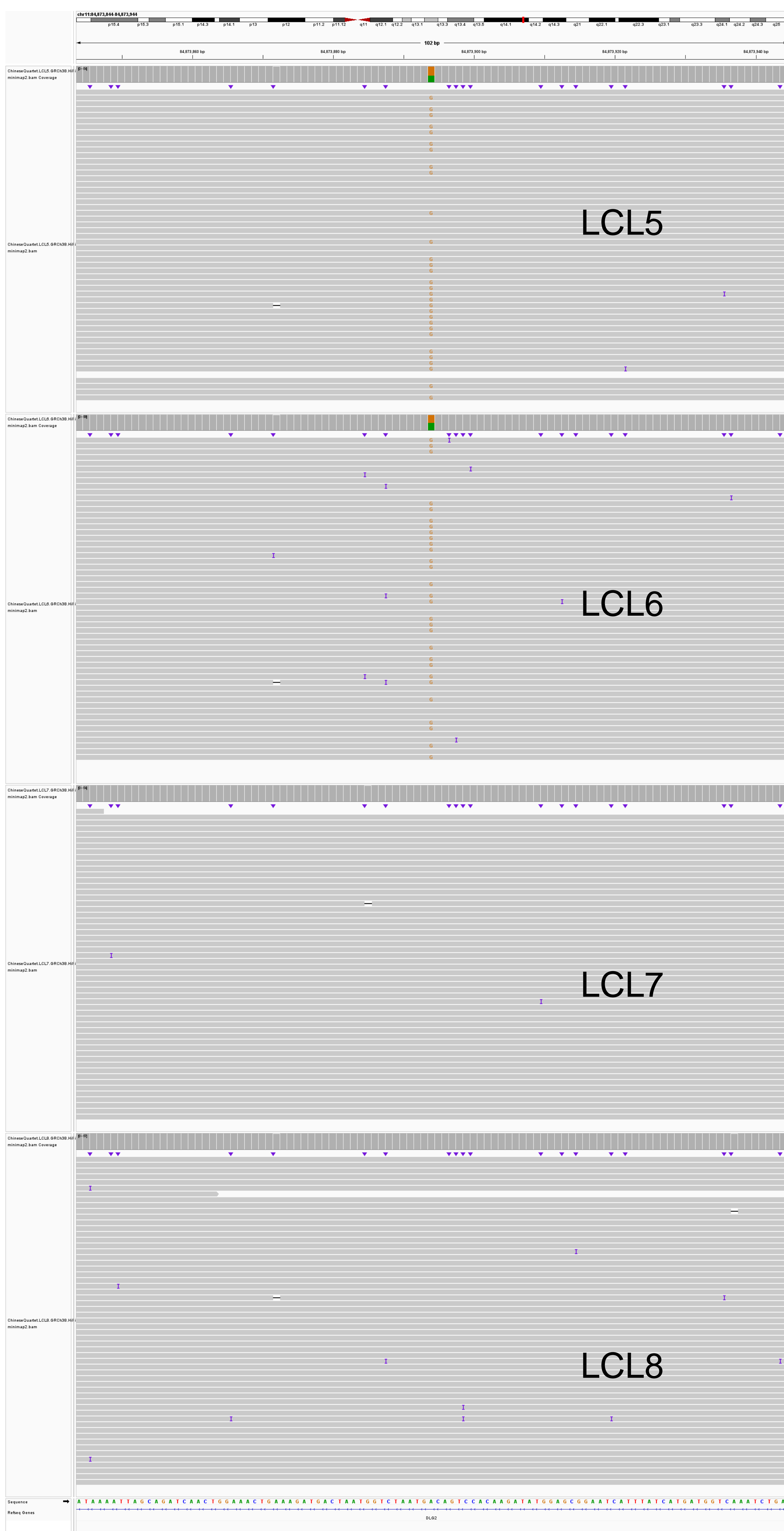




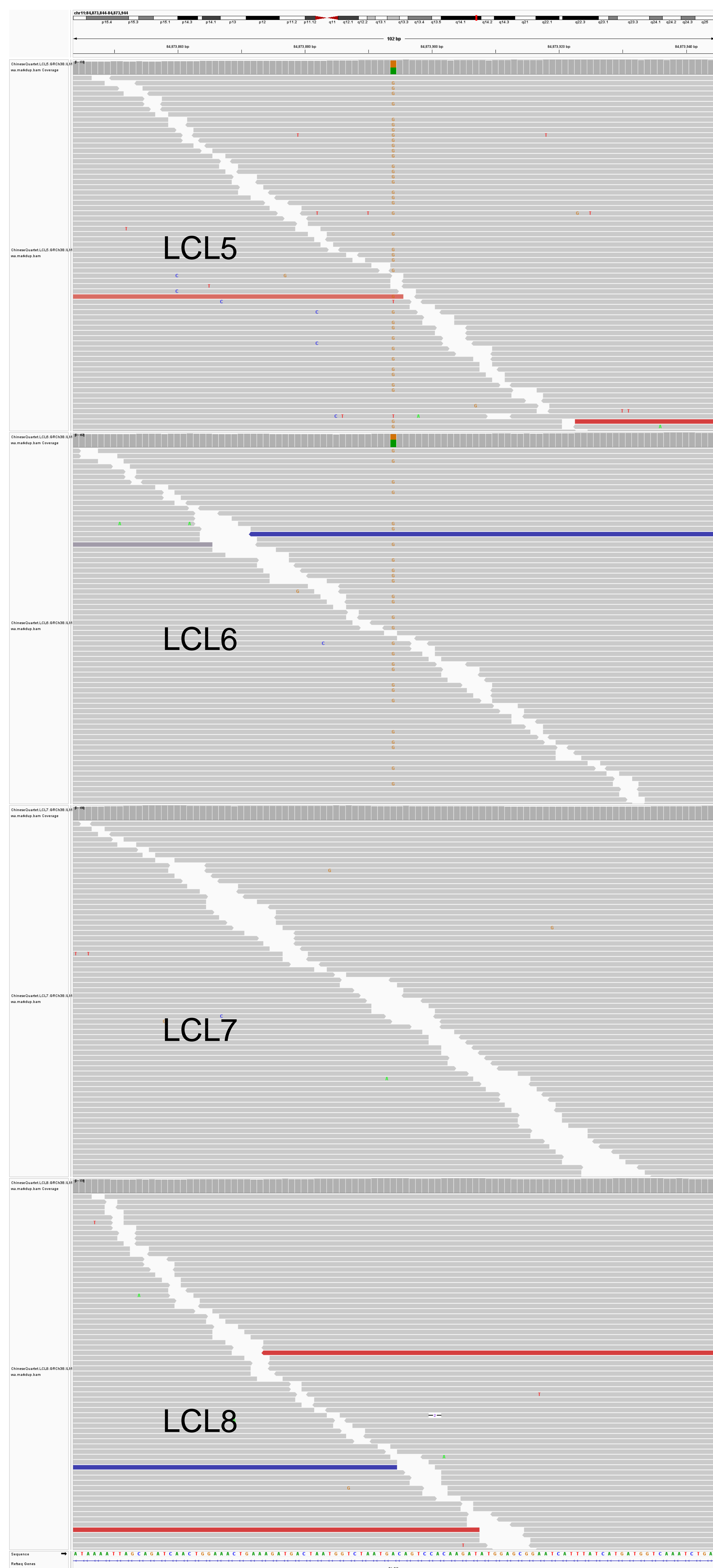




# POS:chr11:84873894 Report DeNovo mutation by ILM

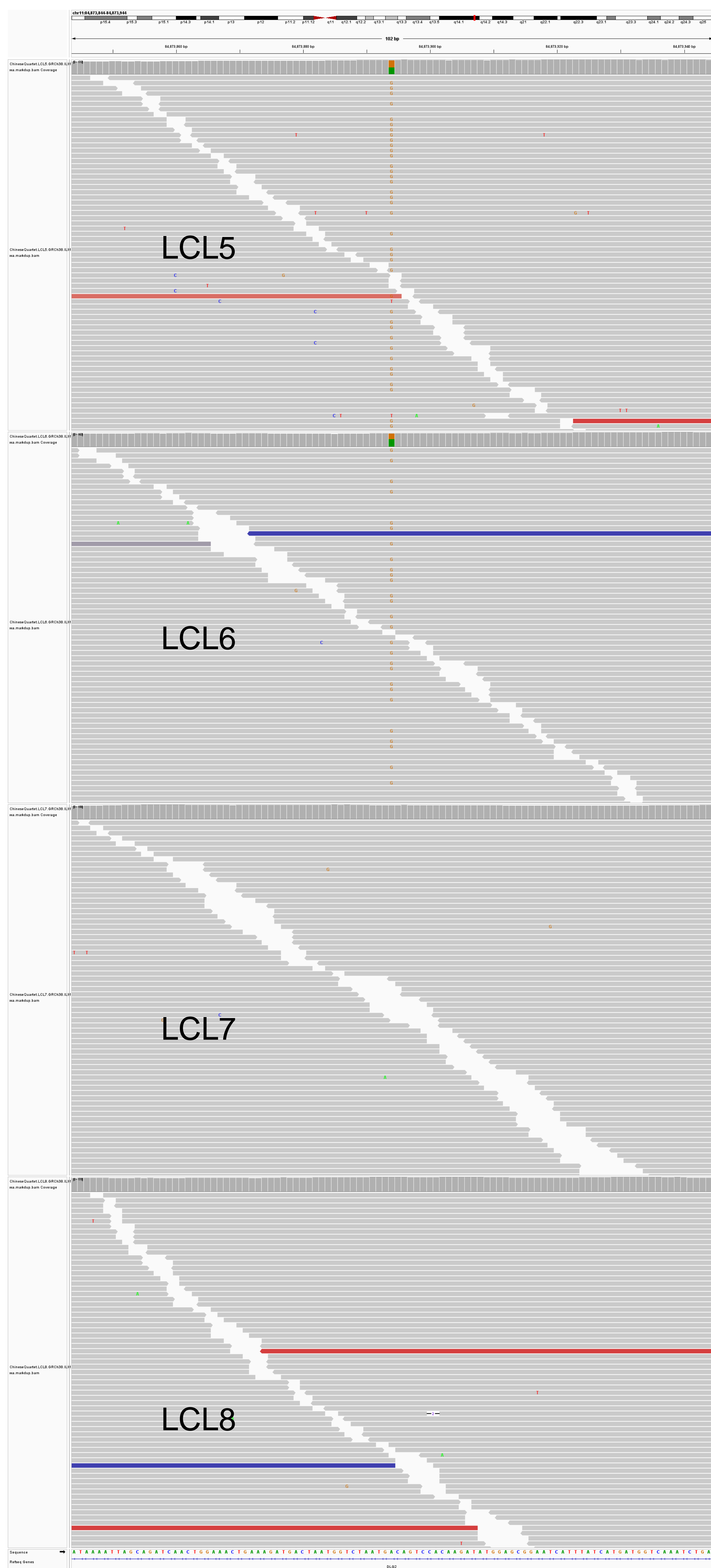
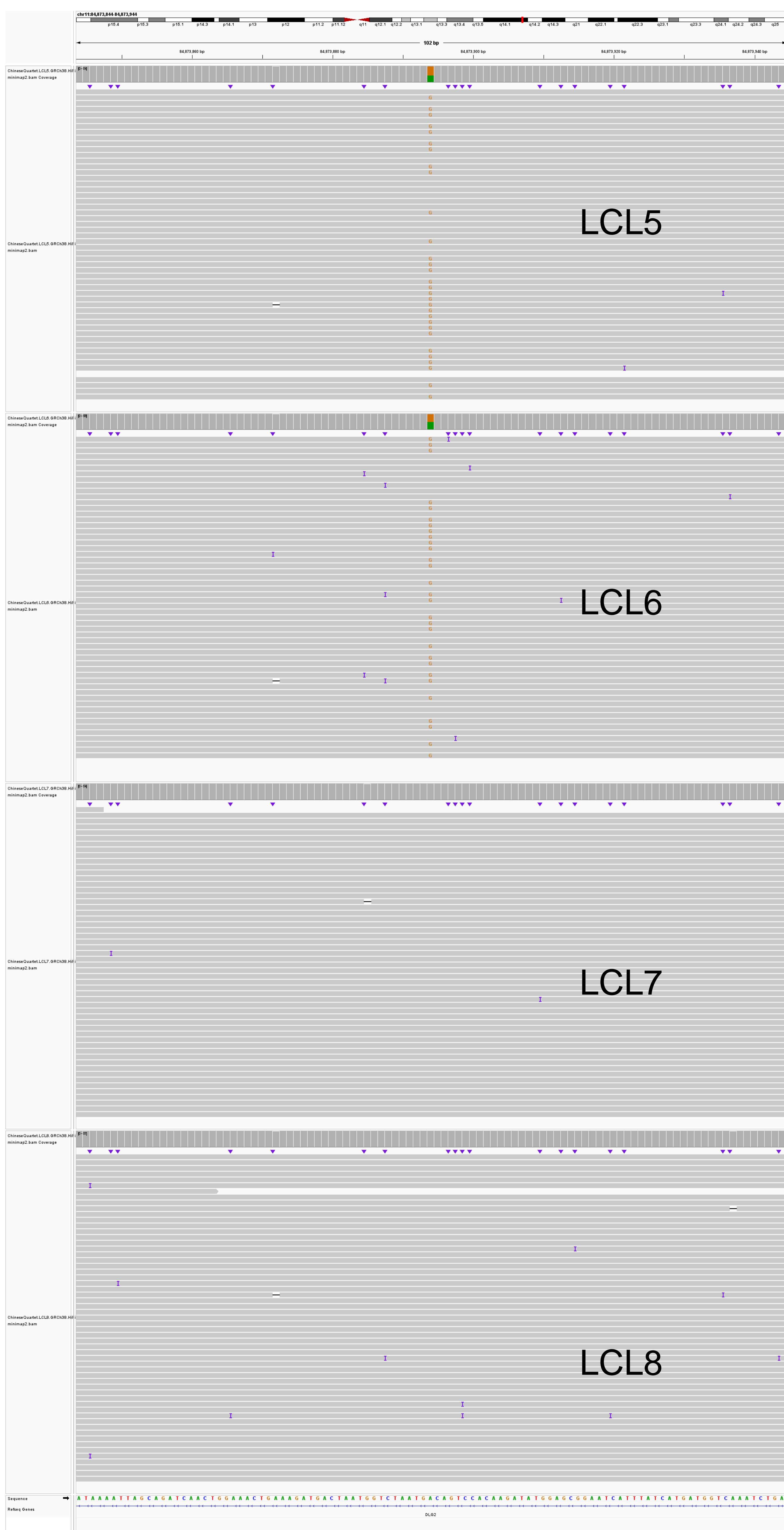


HiFi reads



Illumina reads

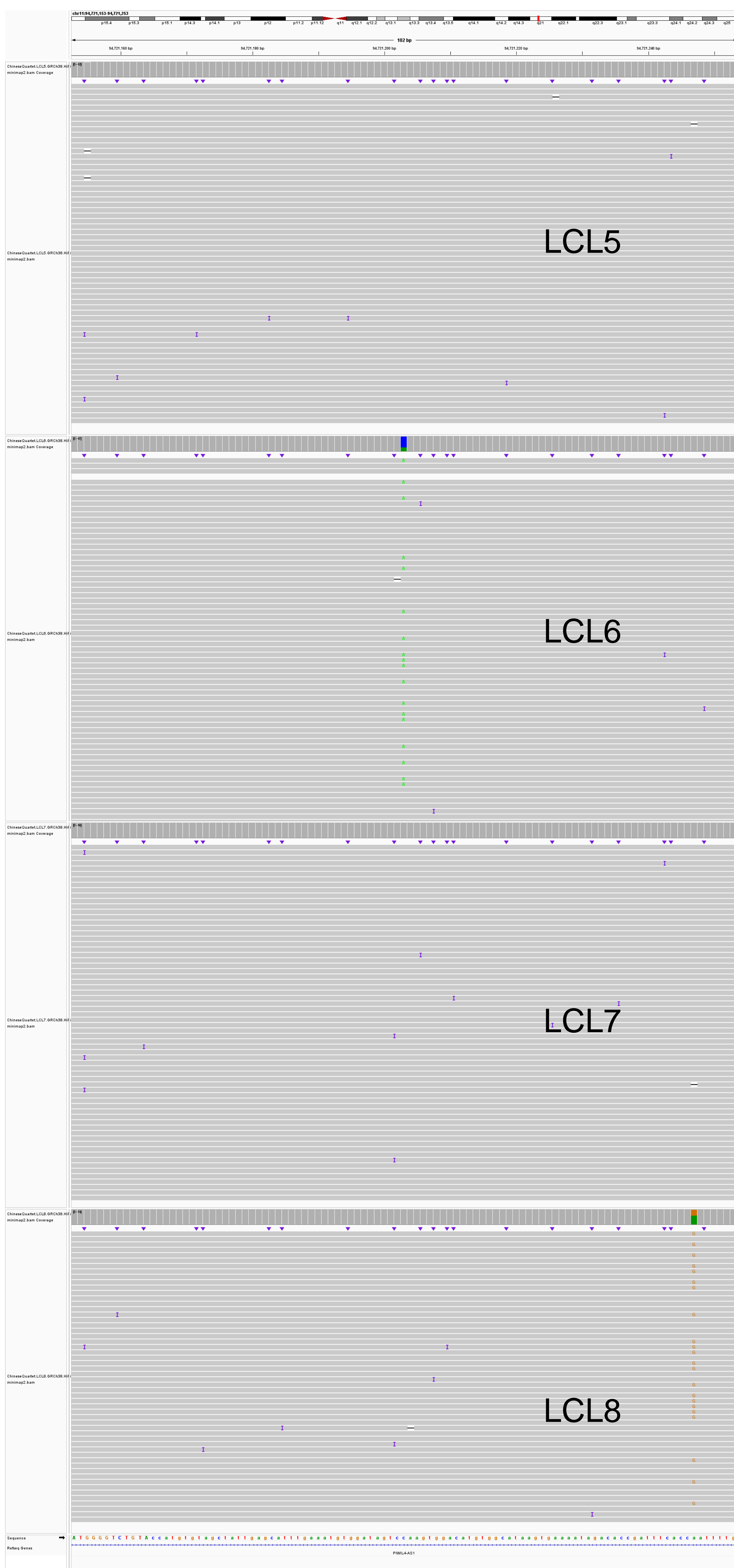
# POS:chr11:84873894 Report DeNovo mutation by HiFi



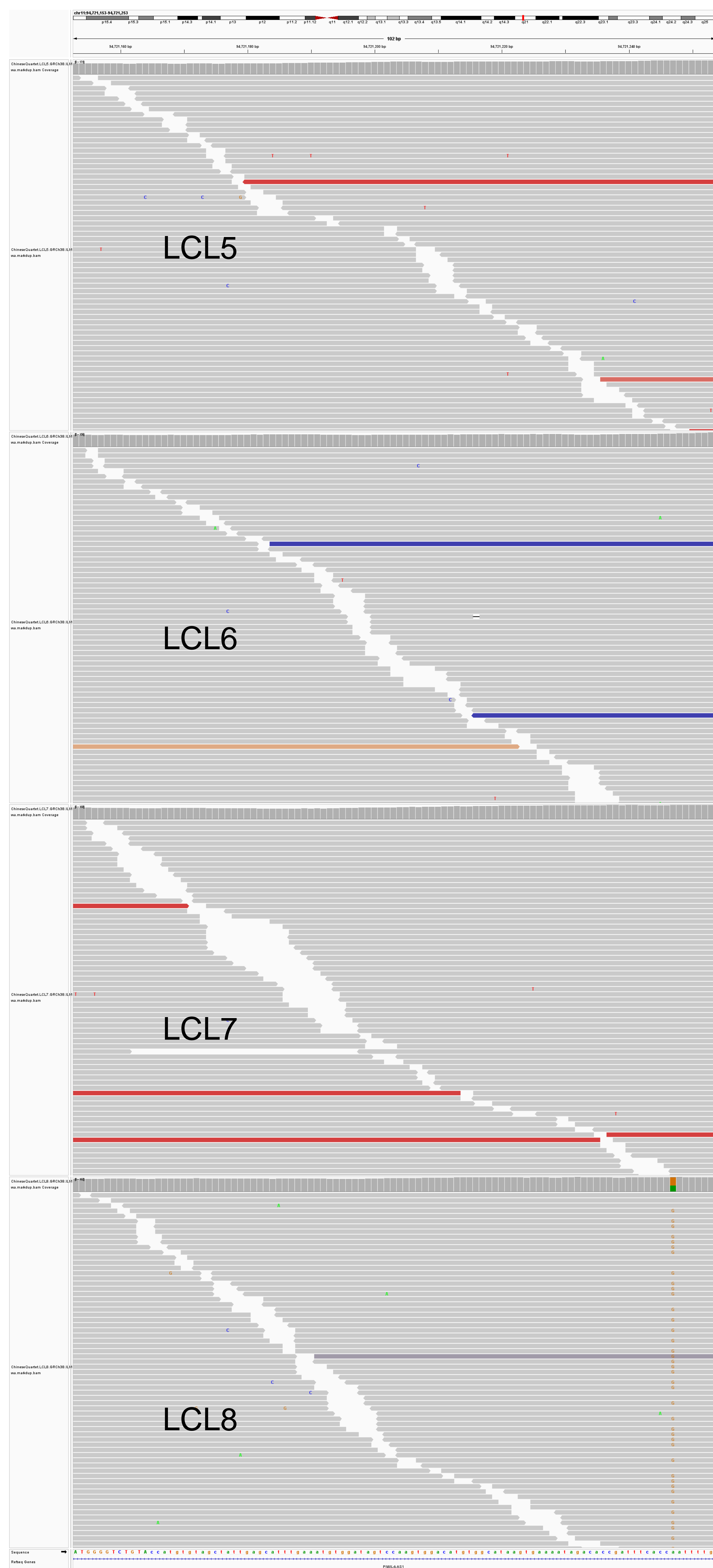
HiFi reads

Illumina reads

# POS:chr11:94721203 Report Somatic mutation by HiFi

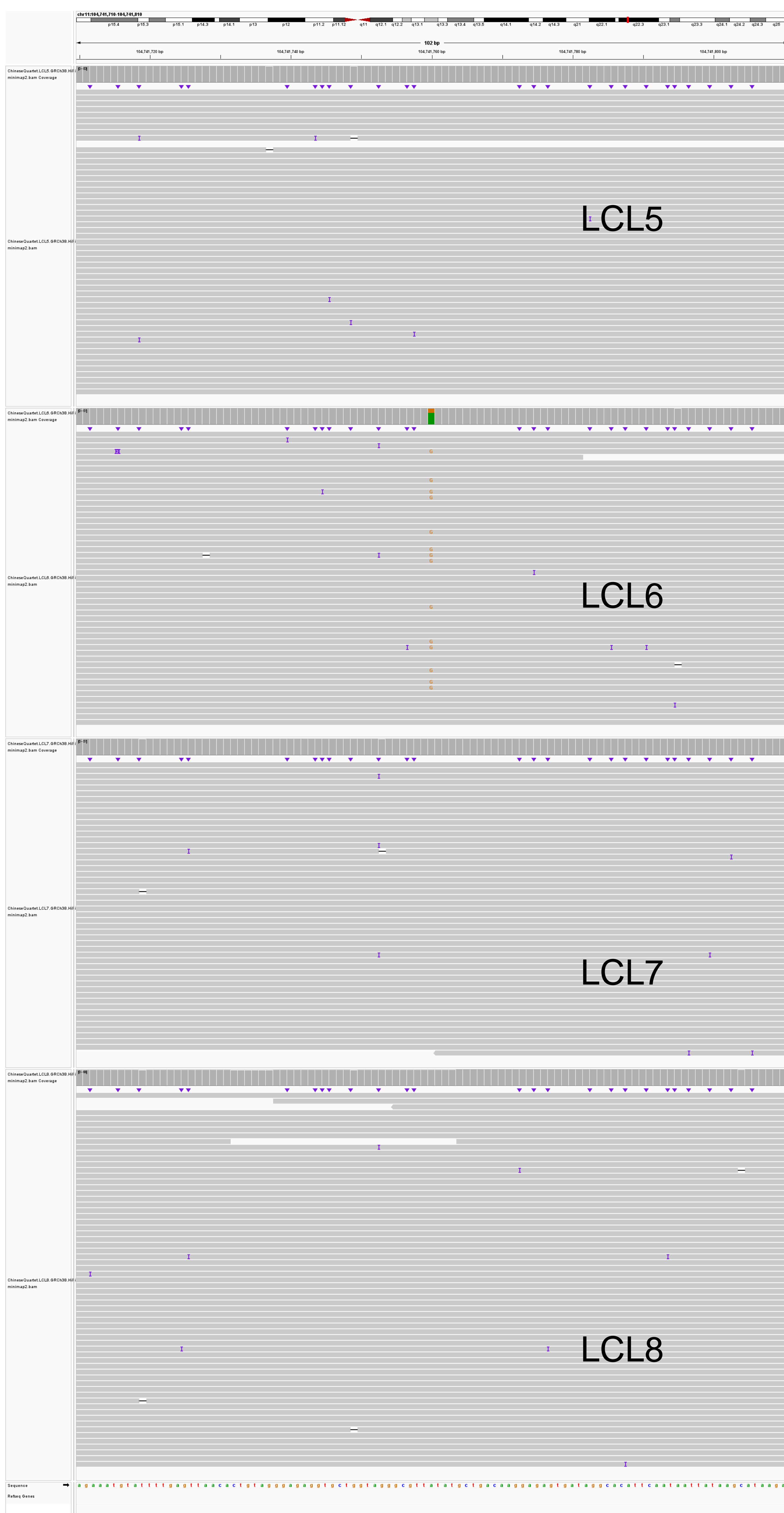


HiFi reads

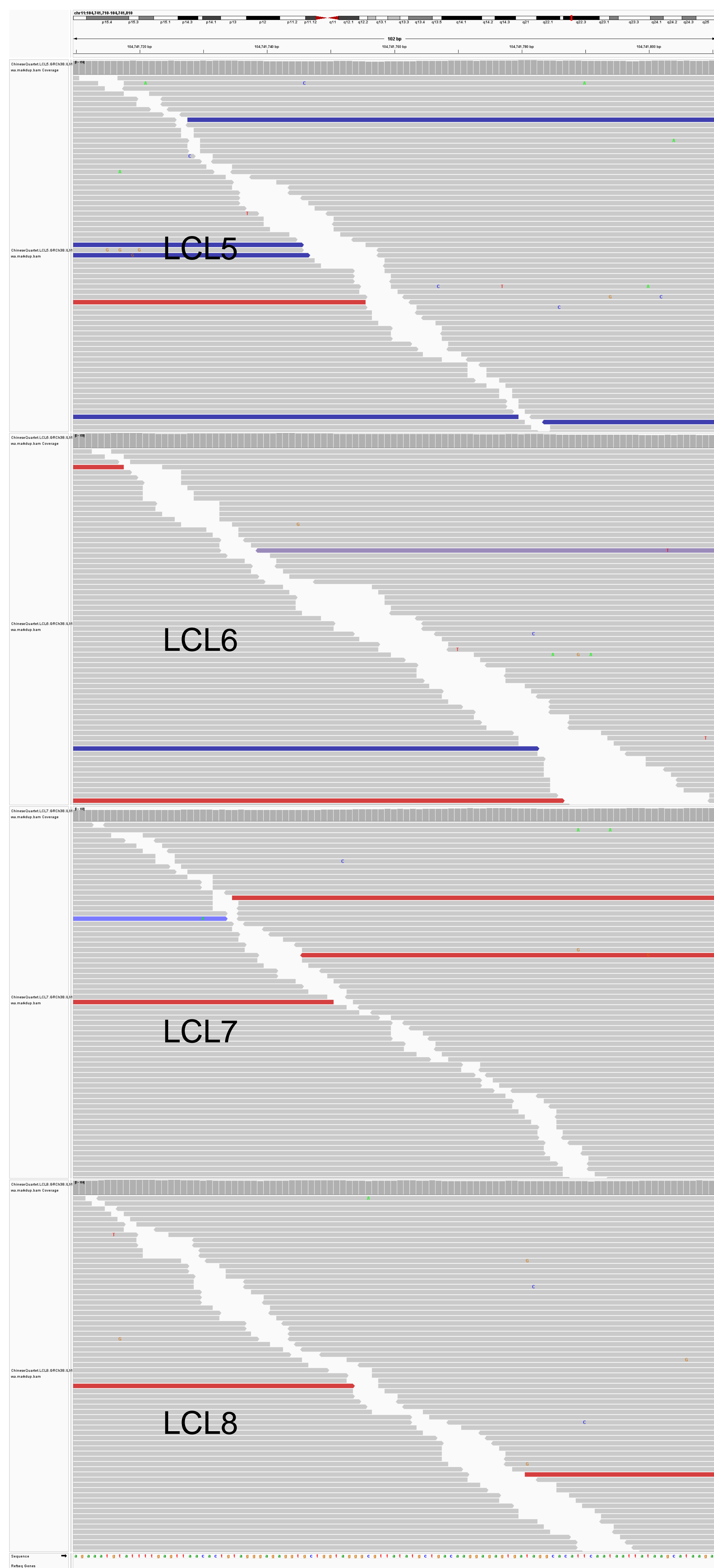


Illumina reads

# POS:chr11:104741760 Report Somatic mutation by HiFi



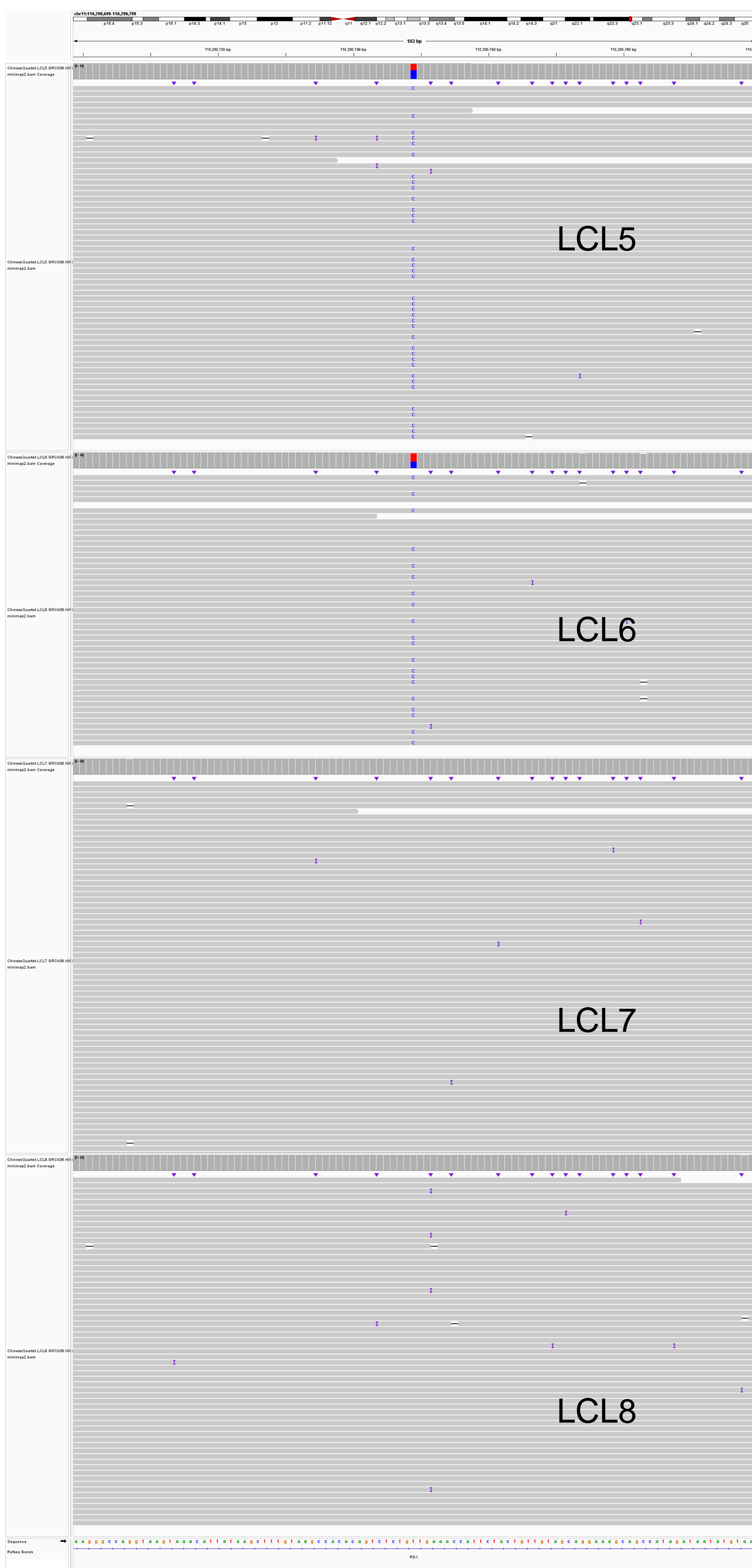
HiFi reads



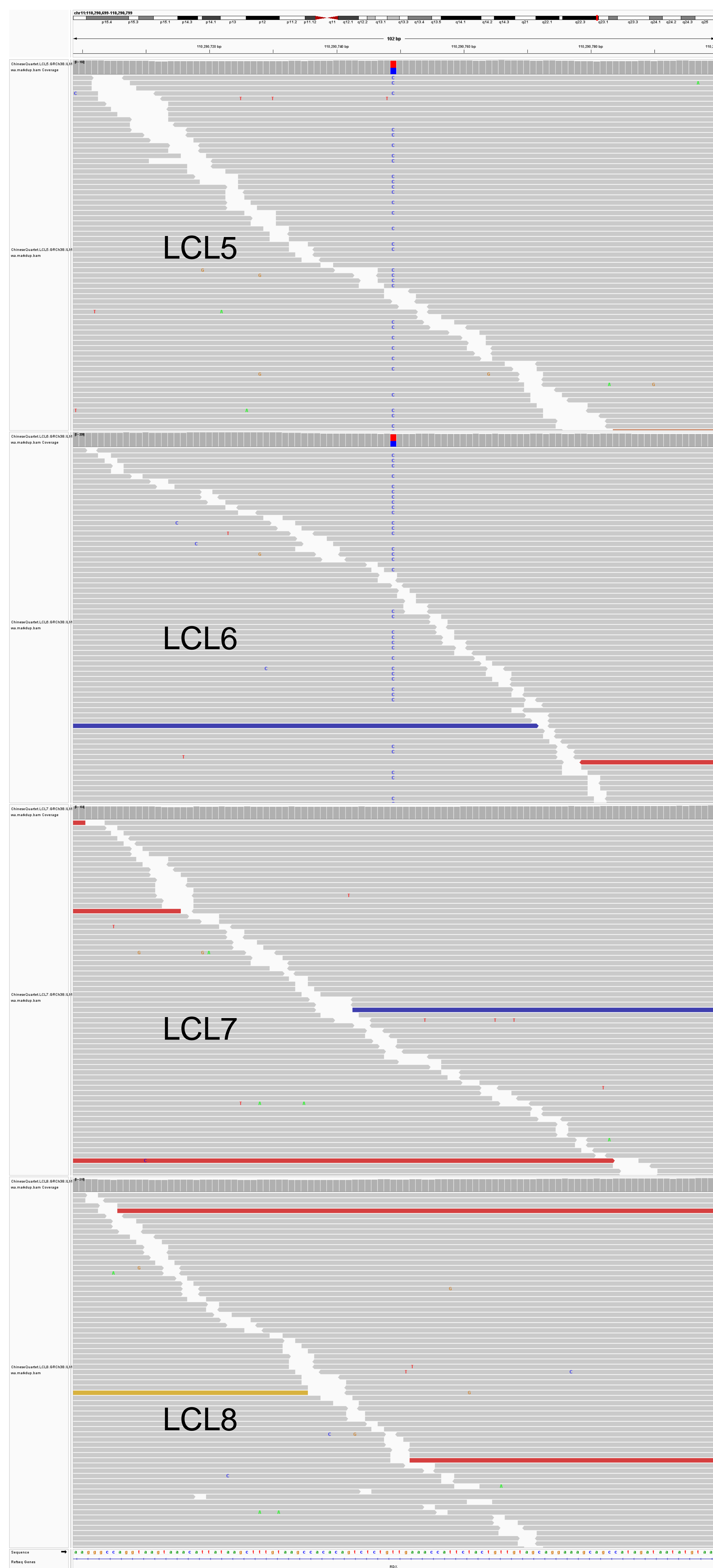
Illumina reads



# POS:chr11:110290749 Report DeNovo mutation by ILM

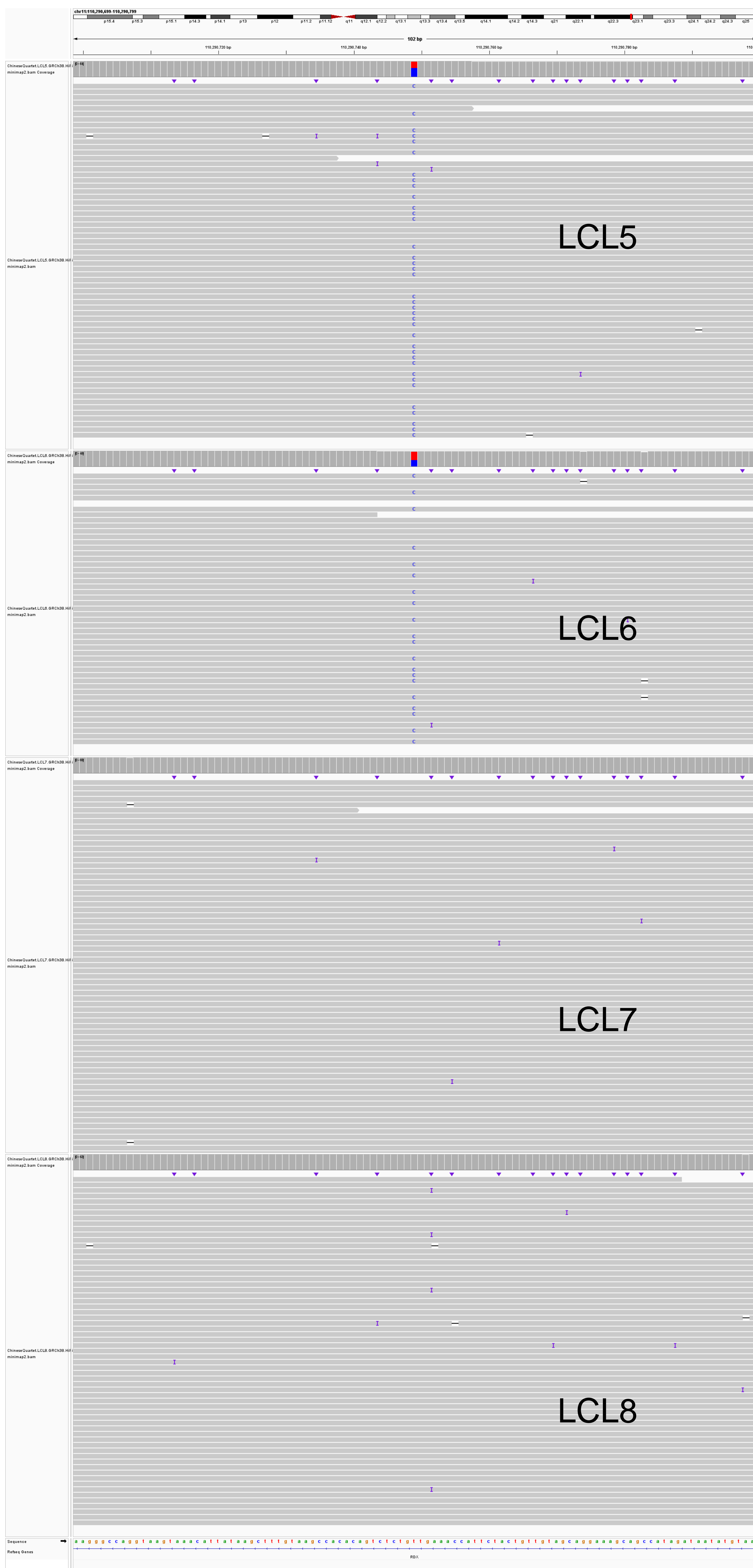


HiFi reads

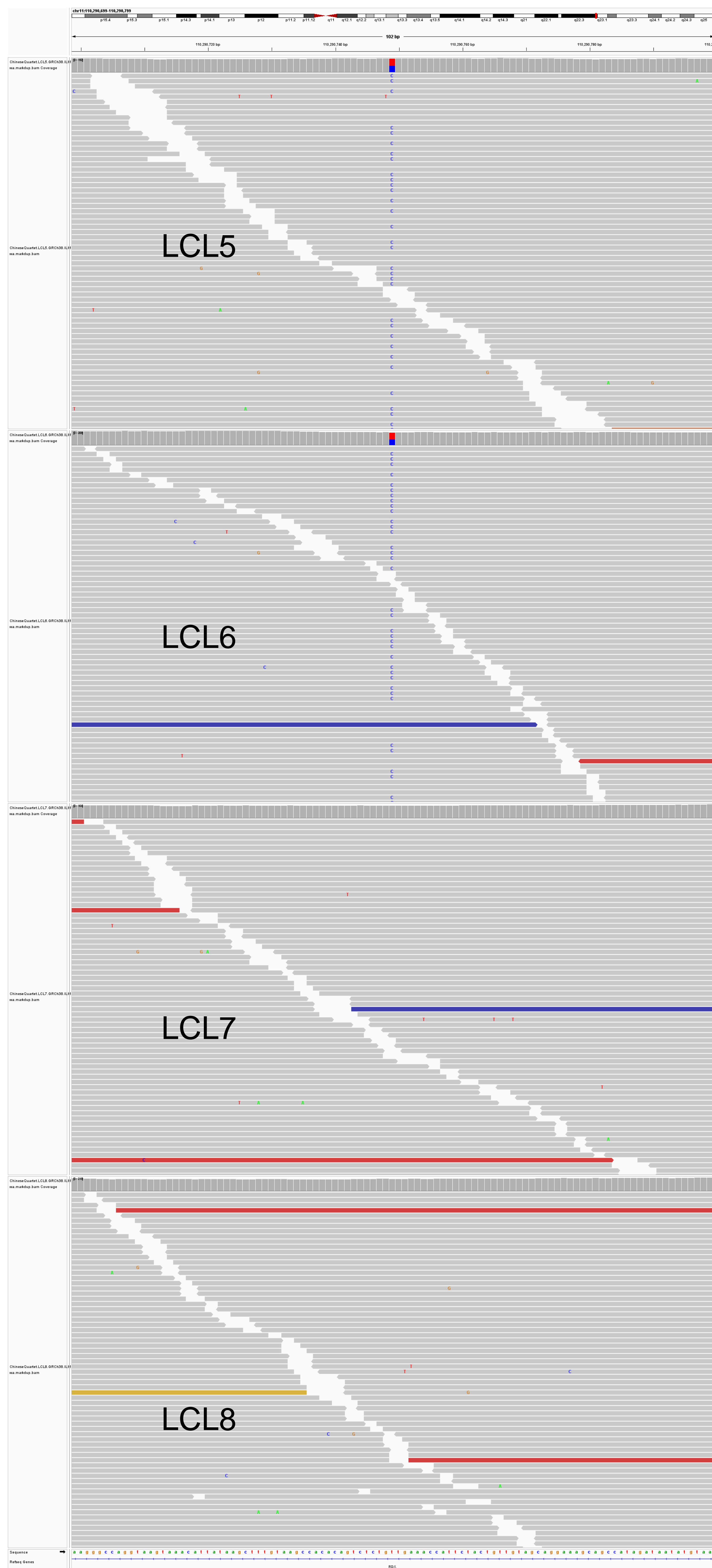


Illumina reads

# POS:chr11:110290749 Report DeNovo mutation by HiFi

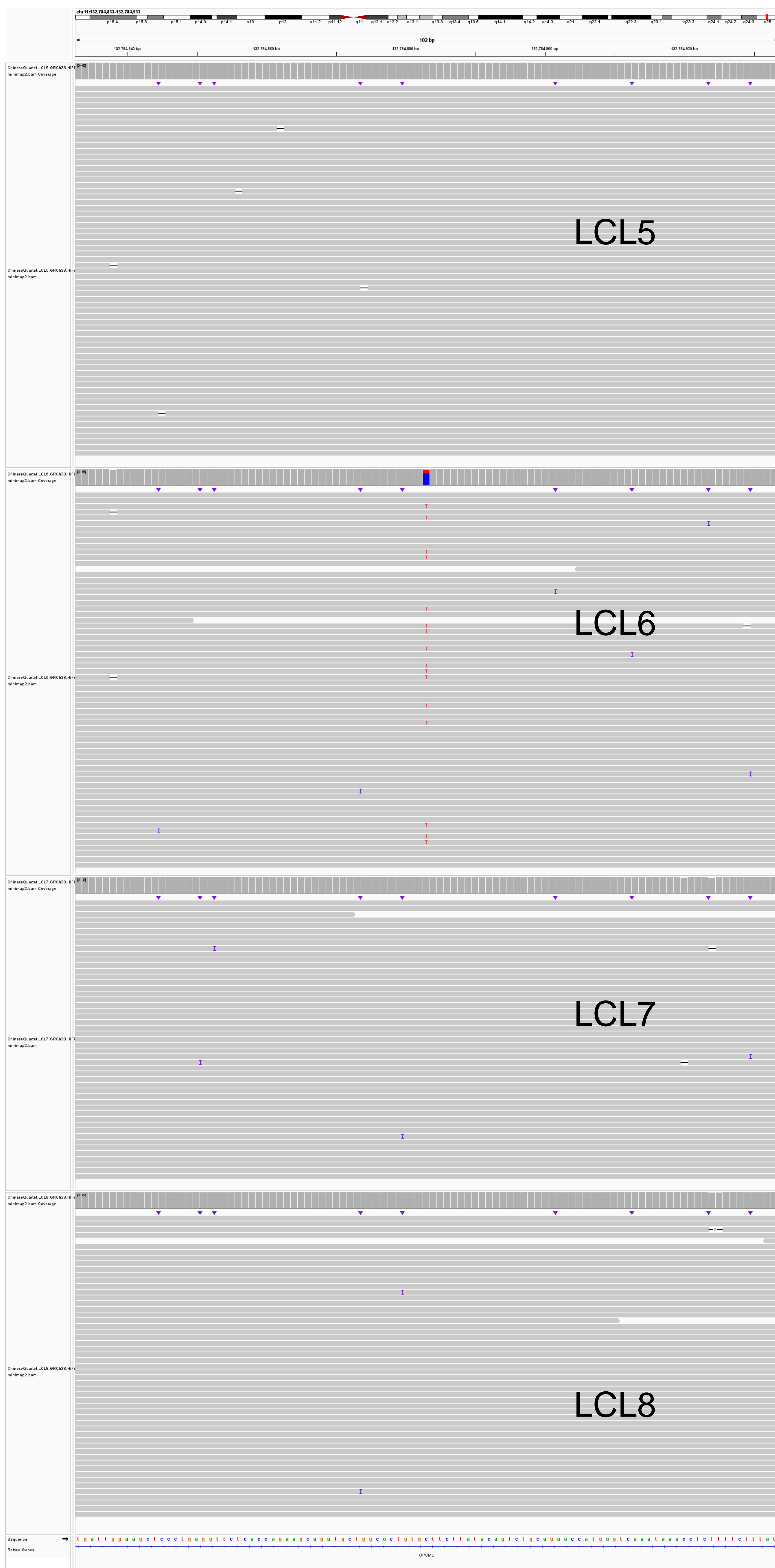


HiFi reads

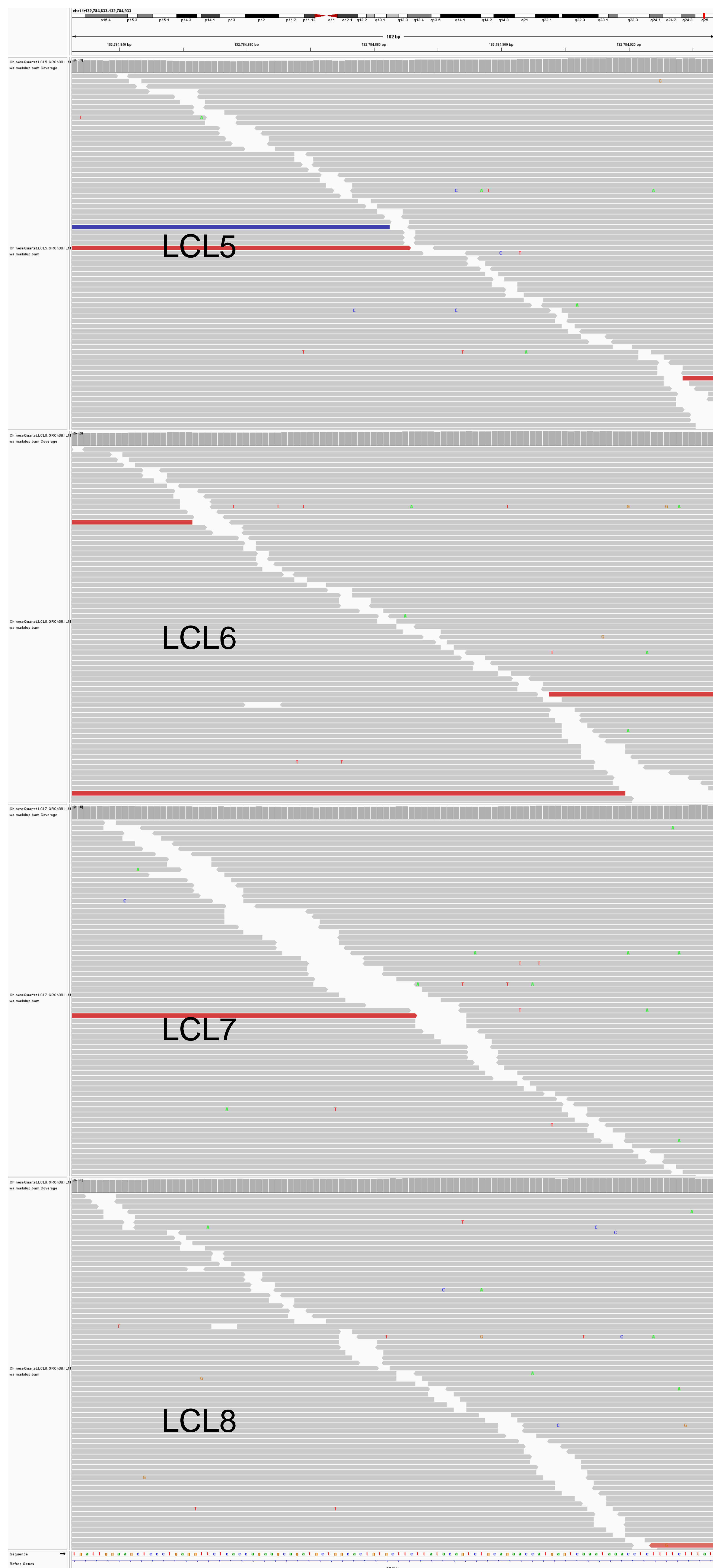


Illumina reads

# POS:chr11:132784883 Report Somatic mutation by HiFi

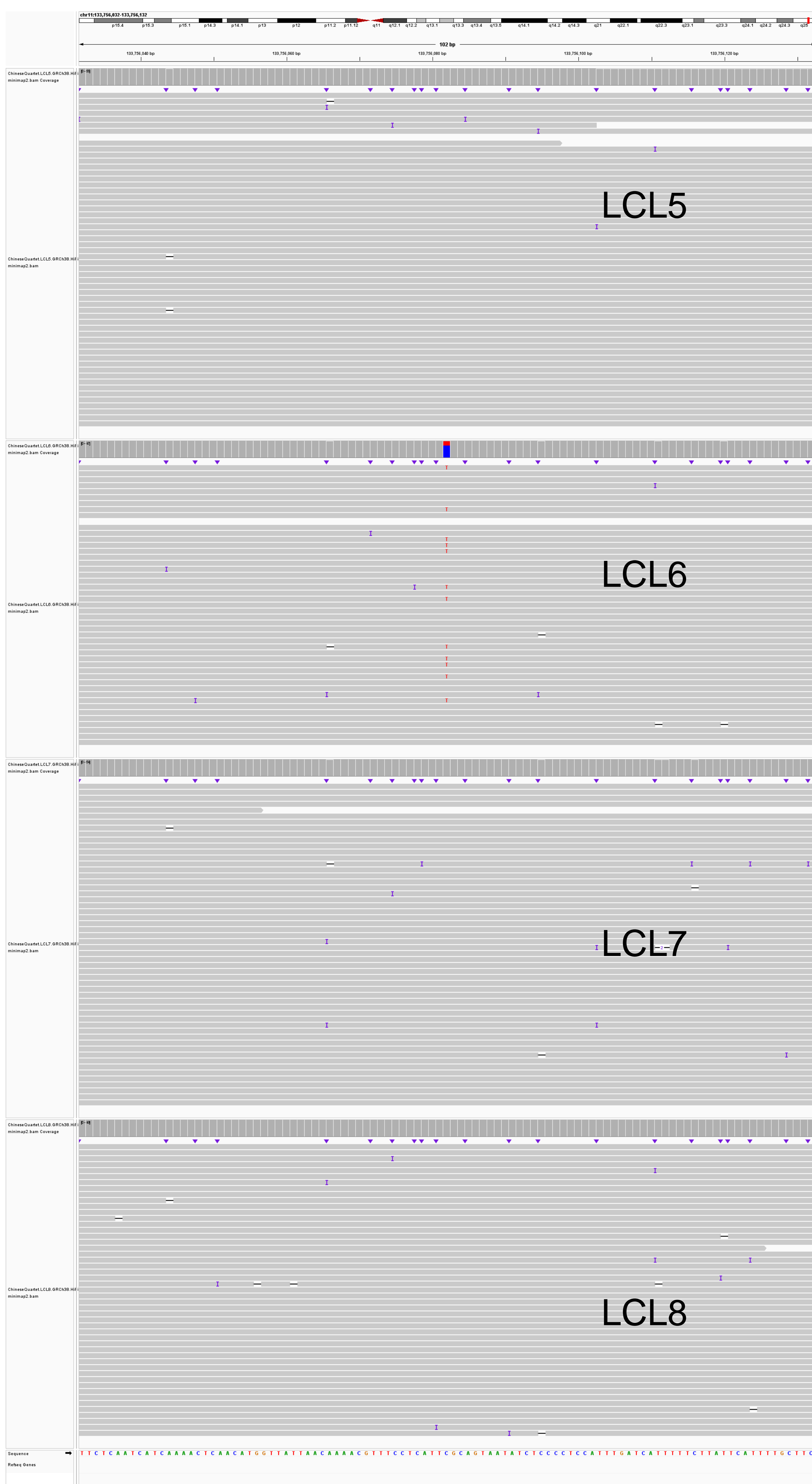


HiFi reads

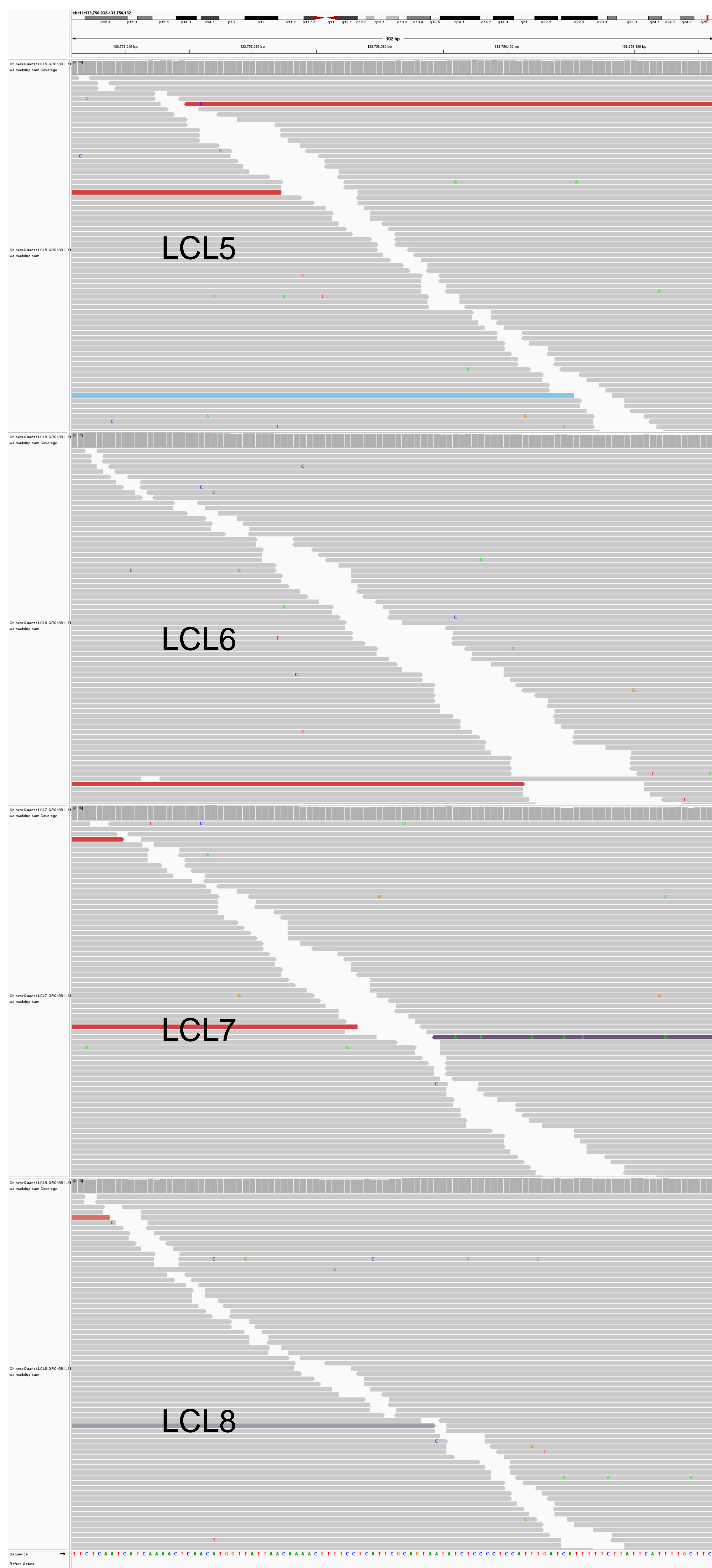


Illumina reads

# POS:chr11:133756082 Report Somatic mutation by HiFi



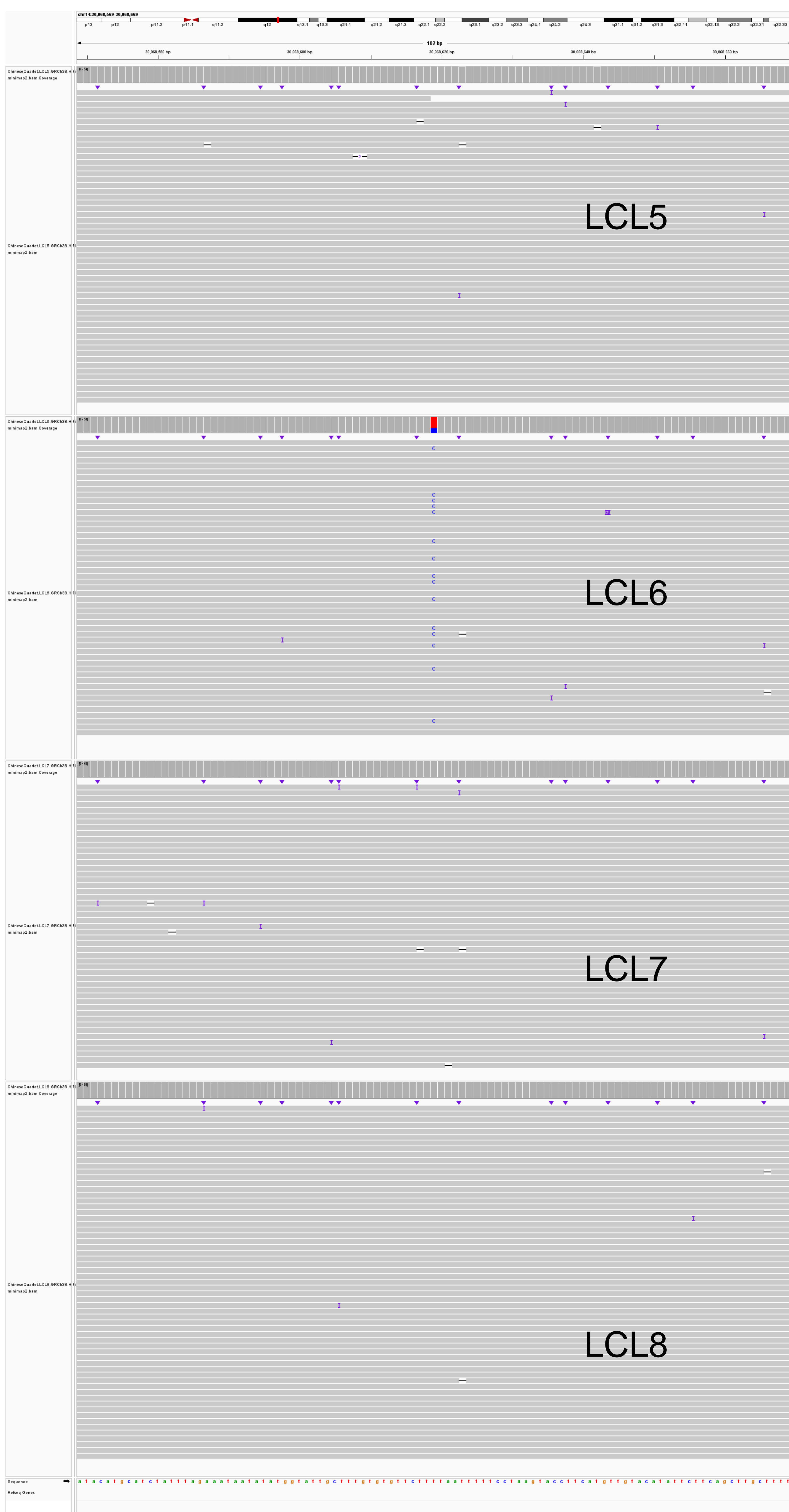
HiFi reads



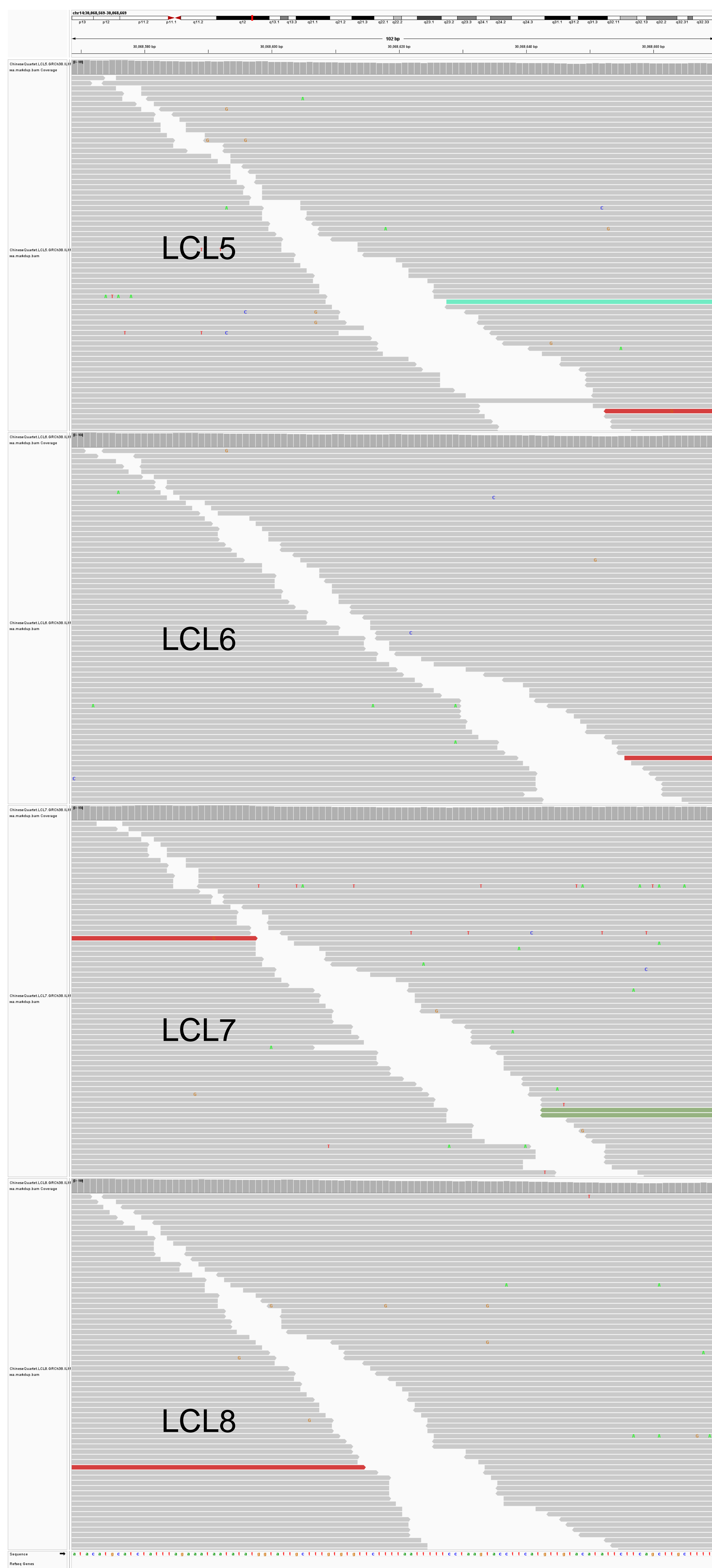
Illumina reads



# POS:chr14:30068619 Report Somatic mutation by HiFi



HiFi reads

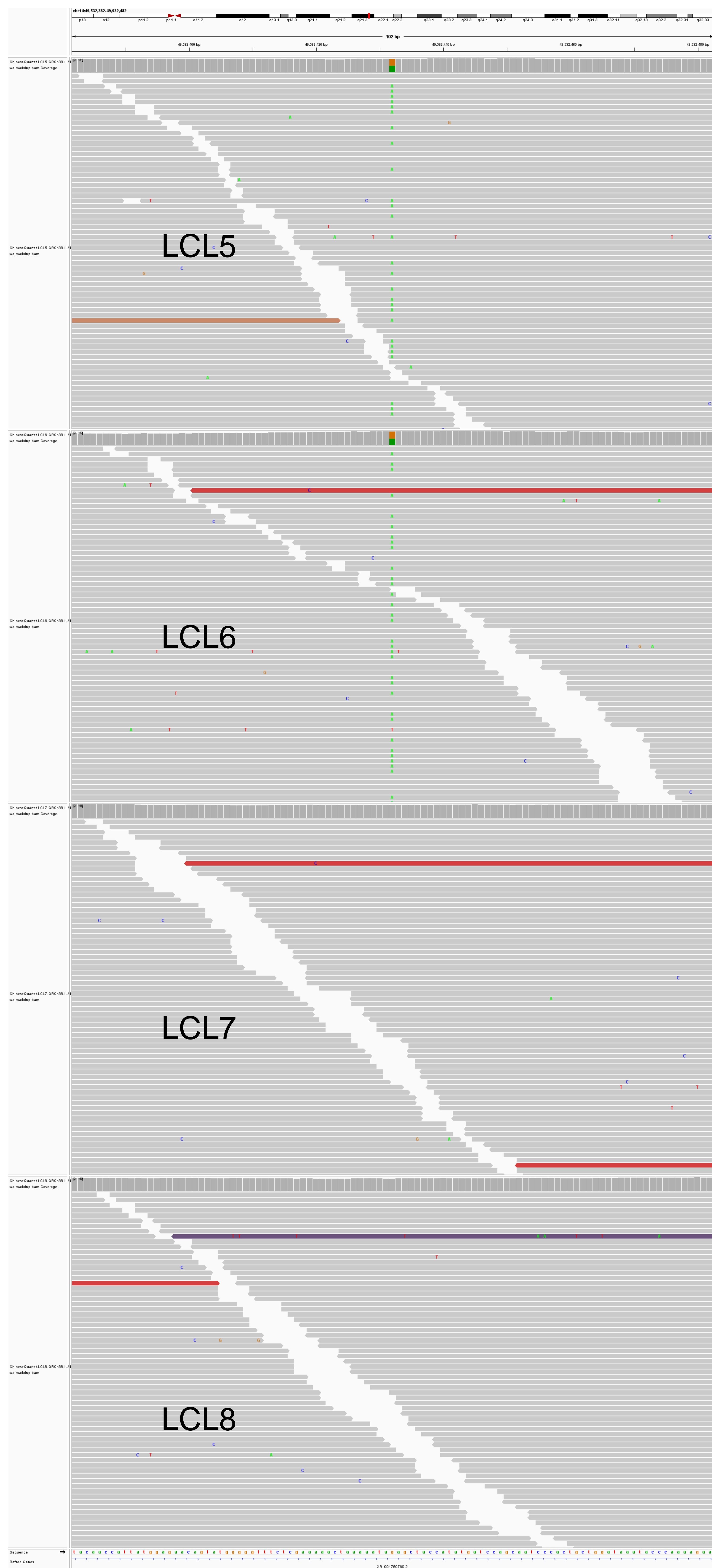


Illumina reads

# POS:chr14:49532432 Report DeNovo mutation by ILM

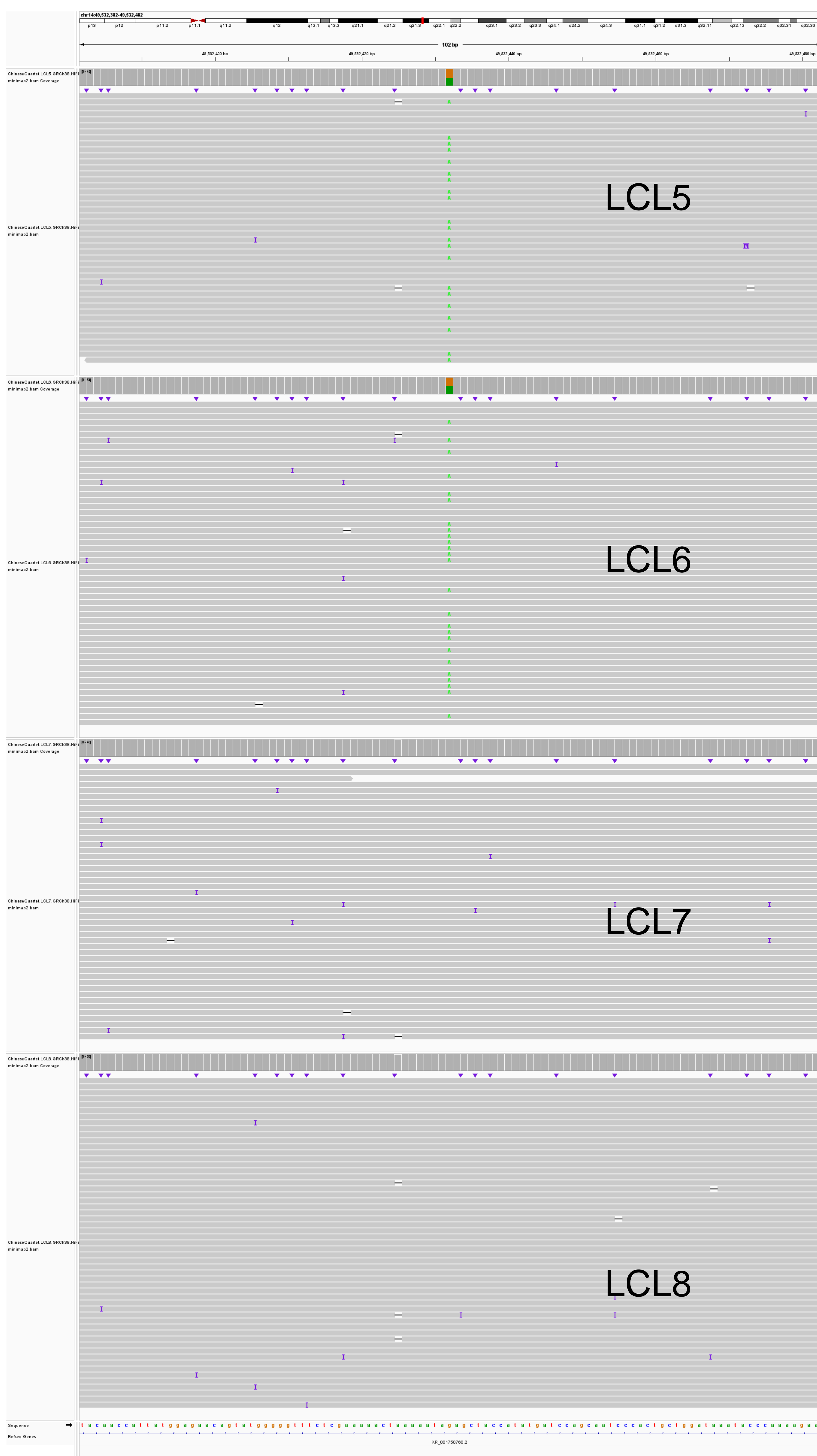


HiFi reads

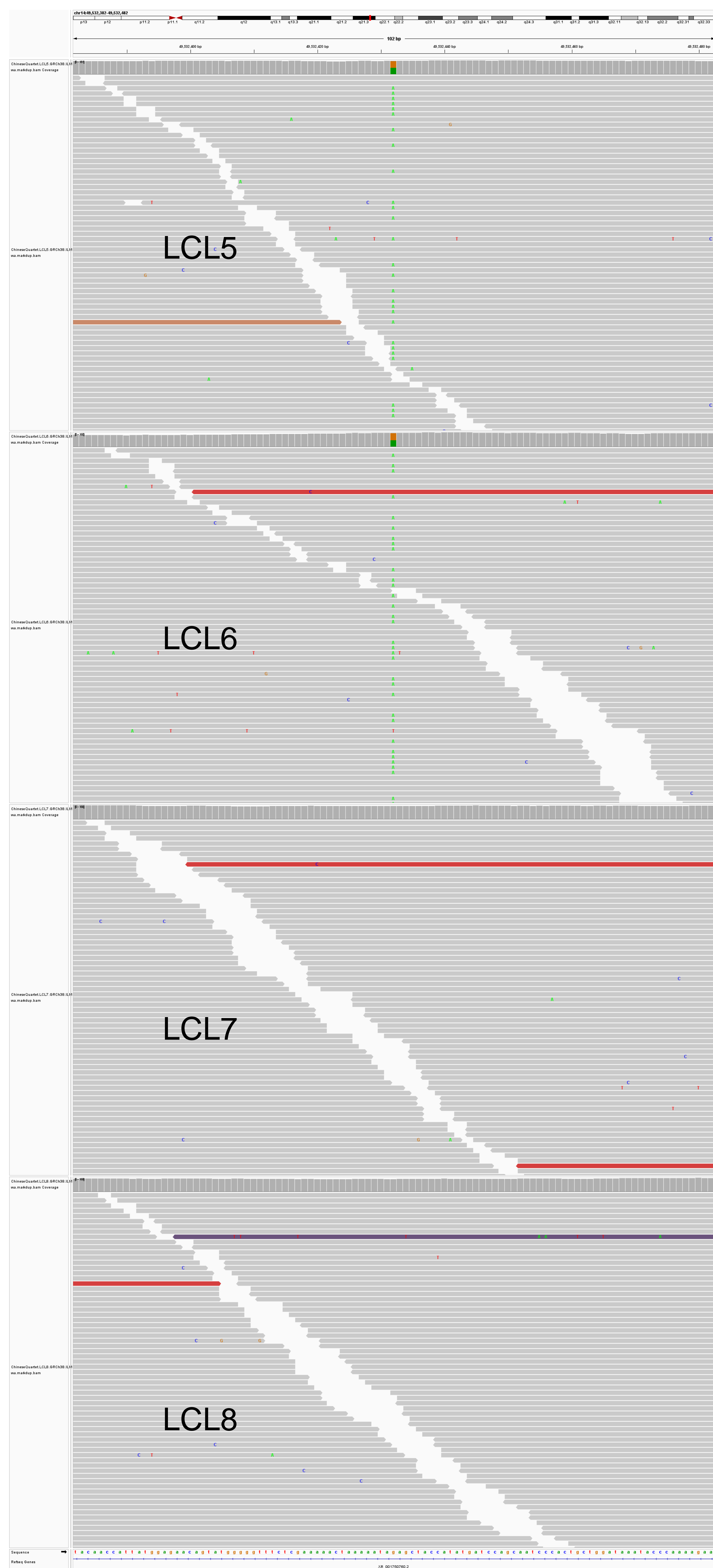


Illumina reads

# POS:chr14:49532432 Report DeNovo mutation by HiFi



HiFi reads

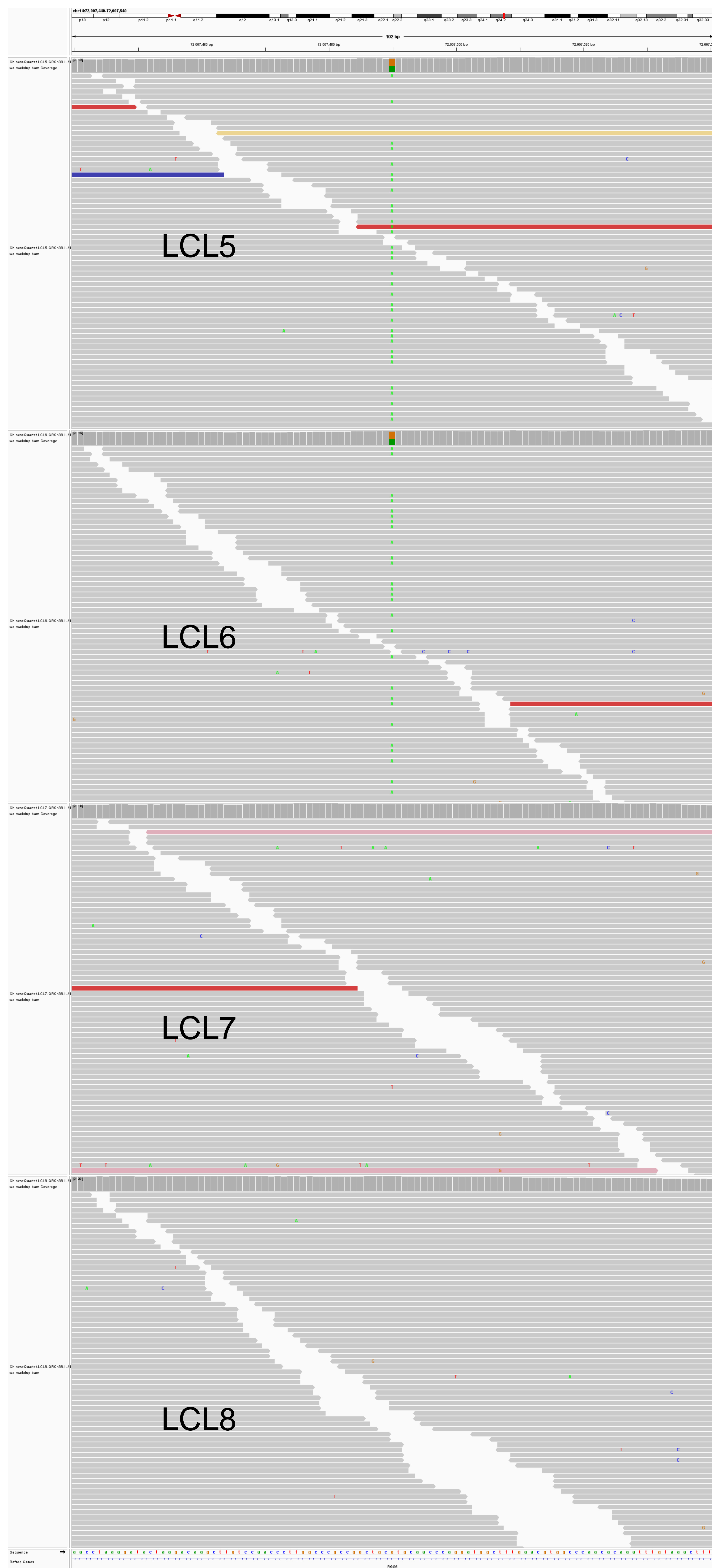


Illumina reads

# POS:chr14:72007490 Report DeNovo mutation by ILM



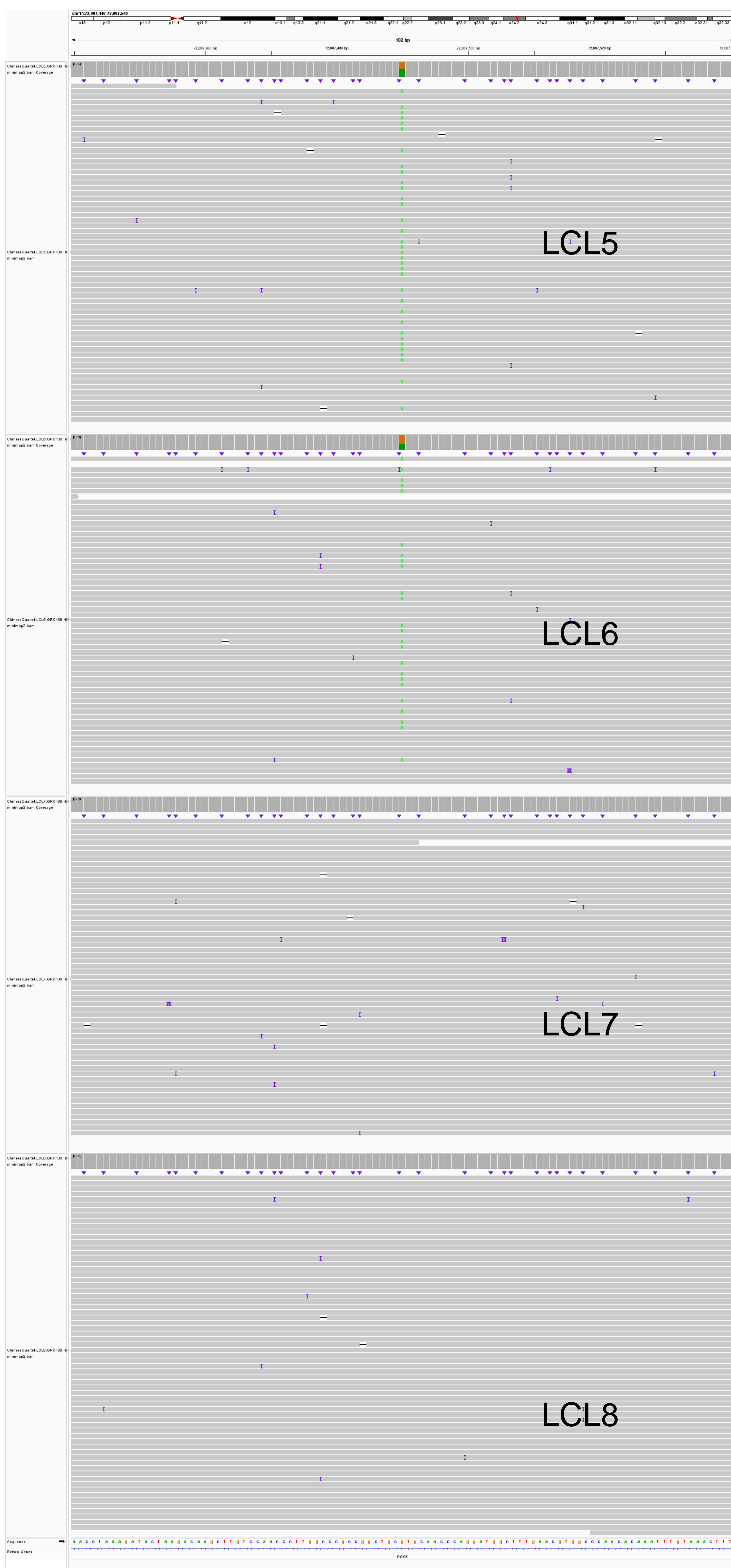
HiFi reads



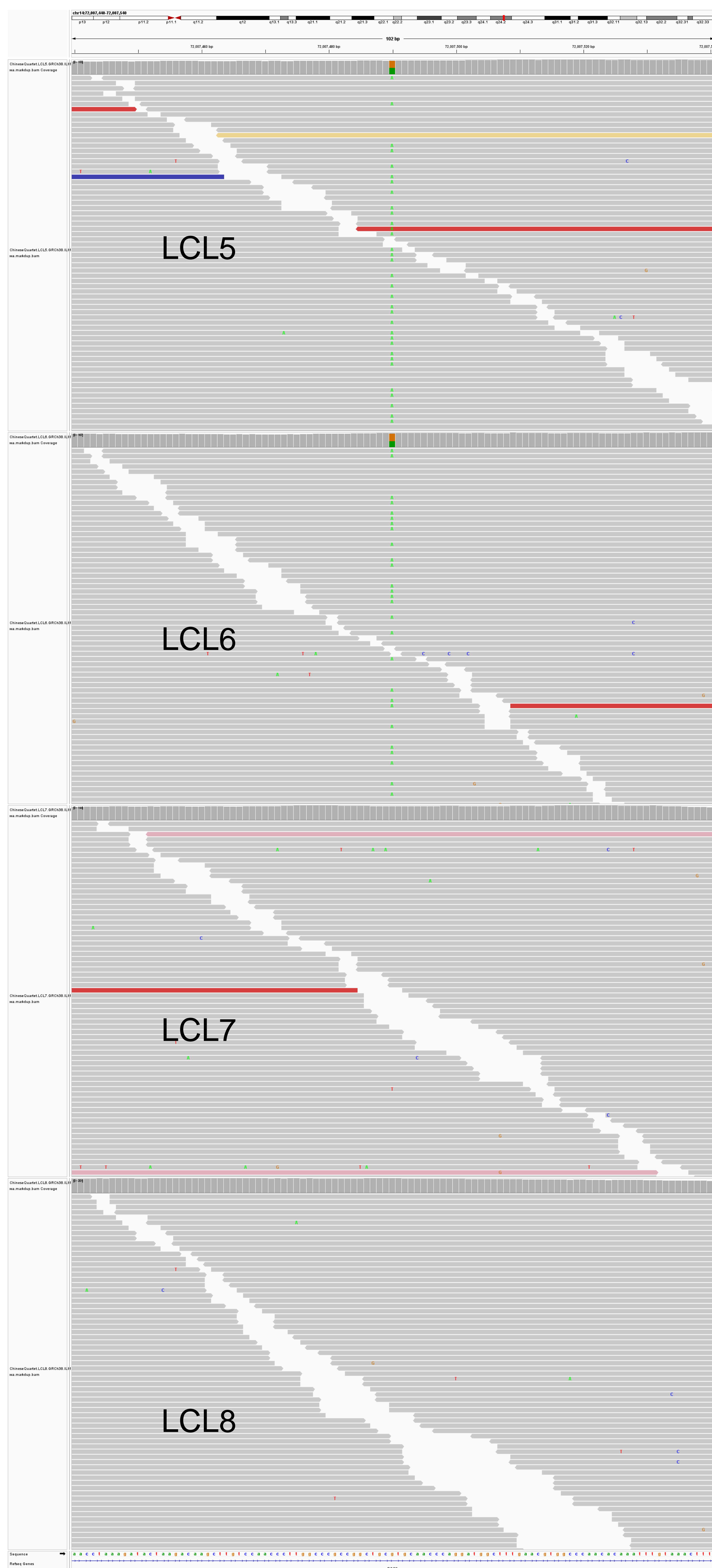
Illumina reads



# POS:chr14:72007490 Report DeNovo mutation by HiFi

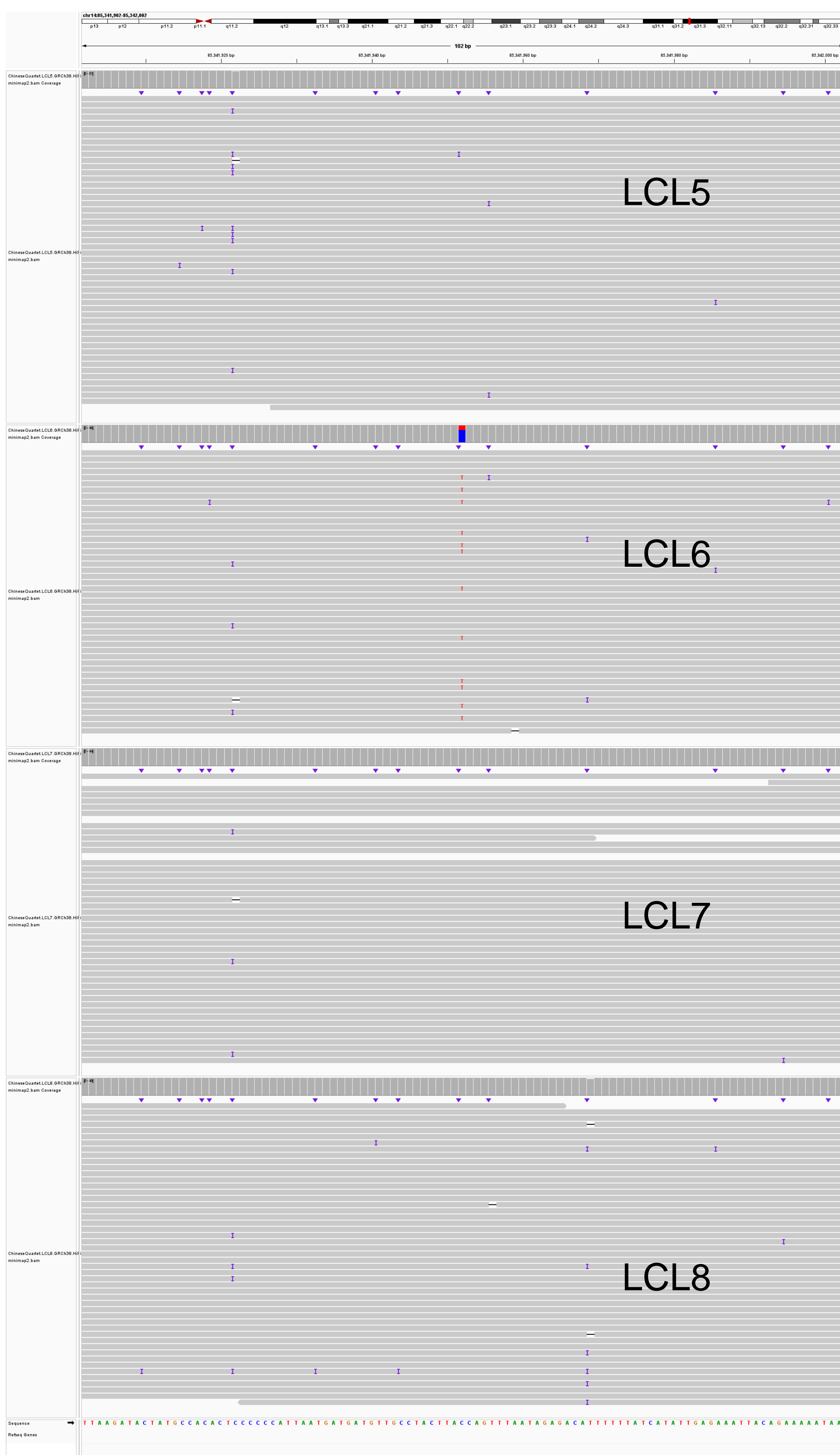


HiFi reads

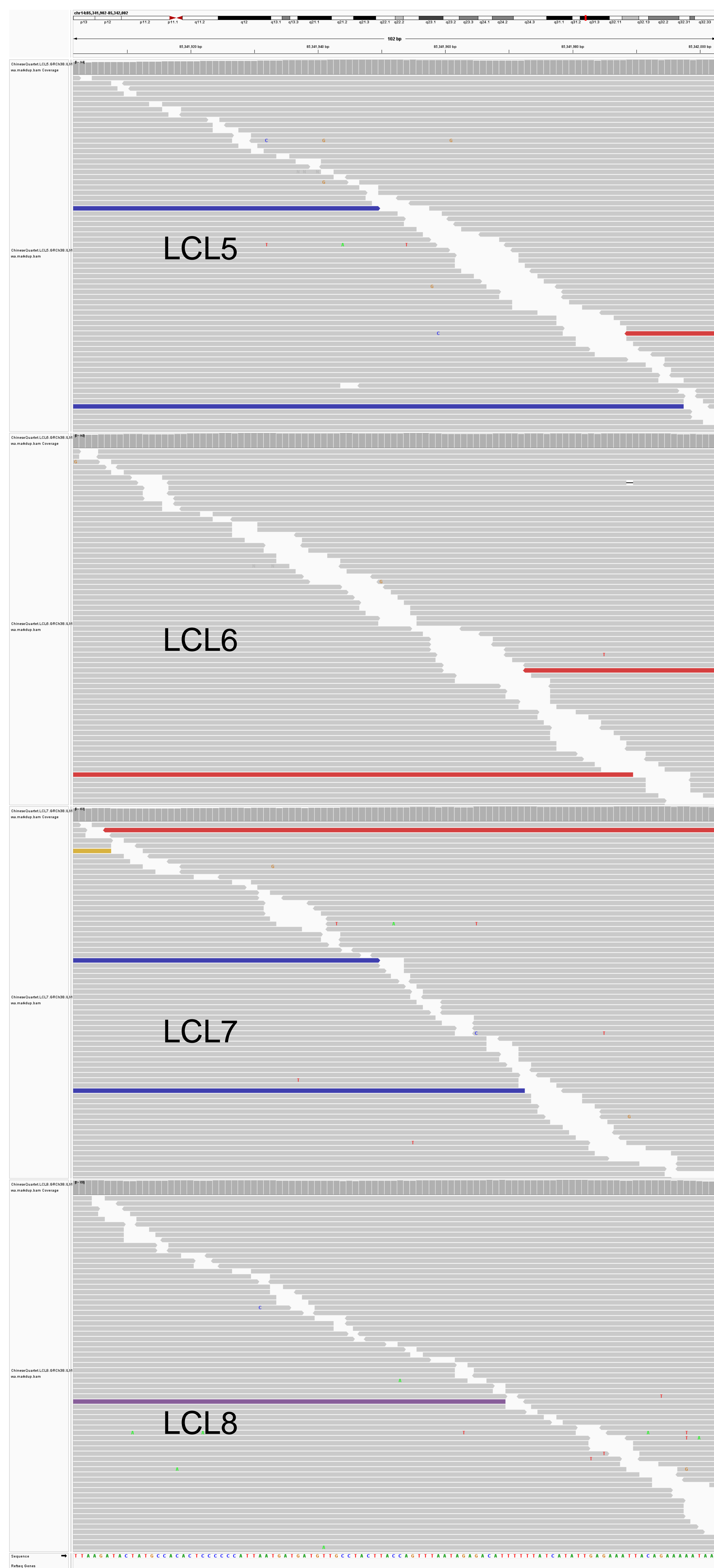


Illumina reads

# POS:chr14:85341952 Report Somatic mutation by HiFi

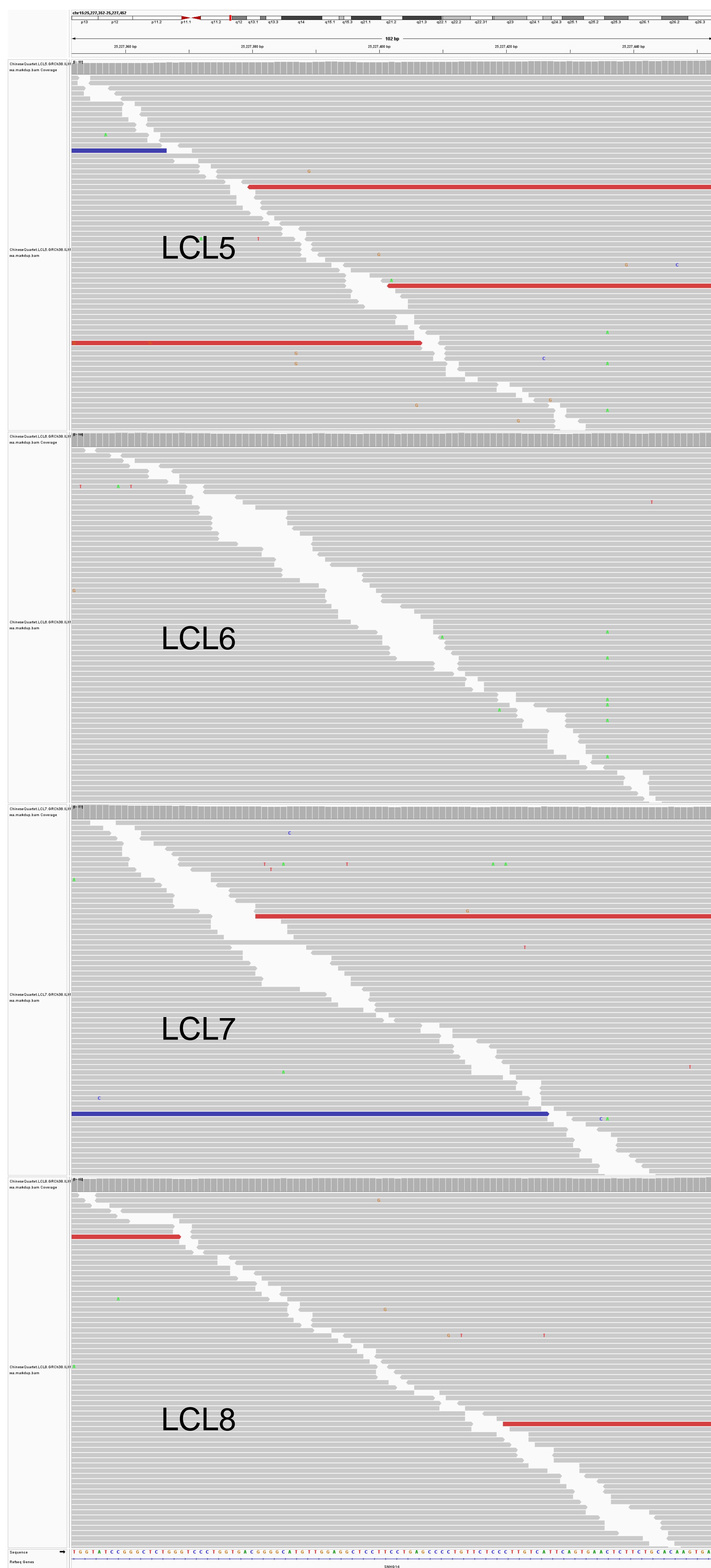
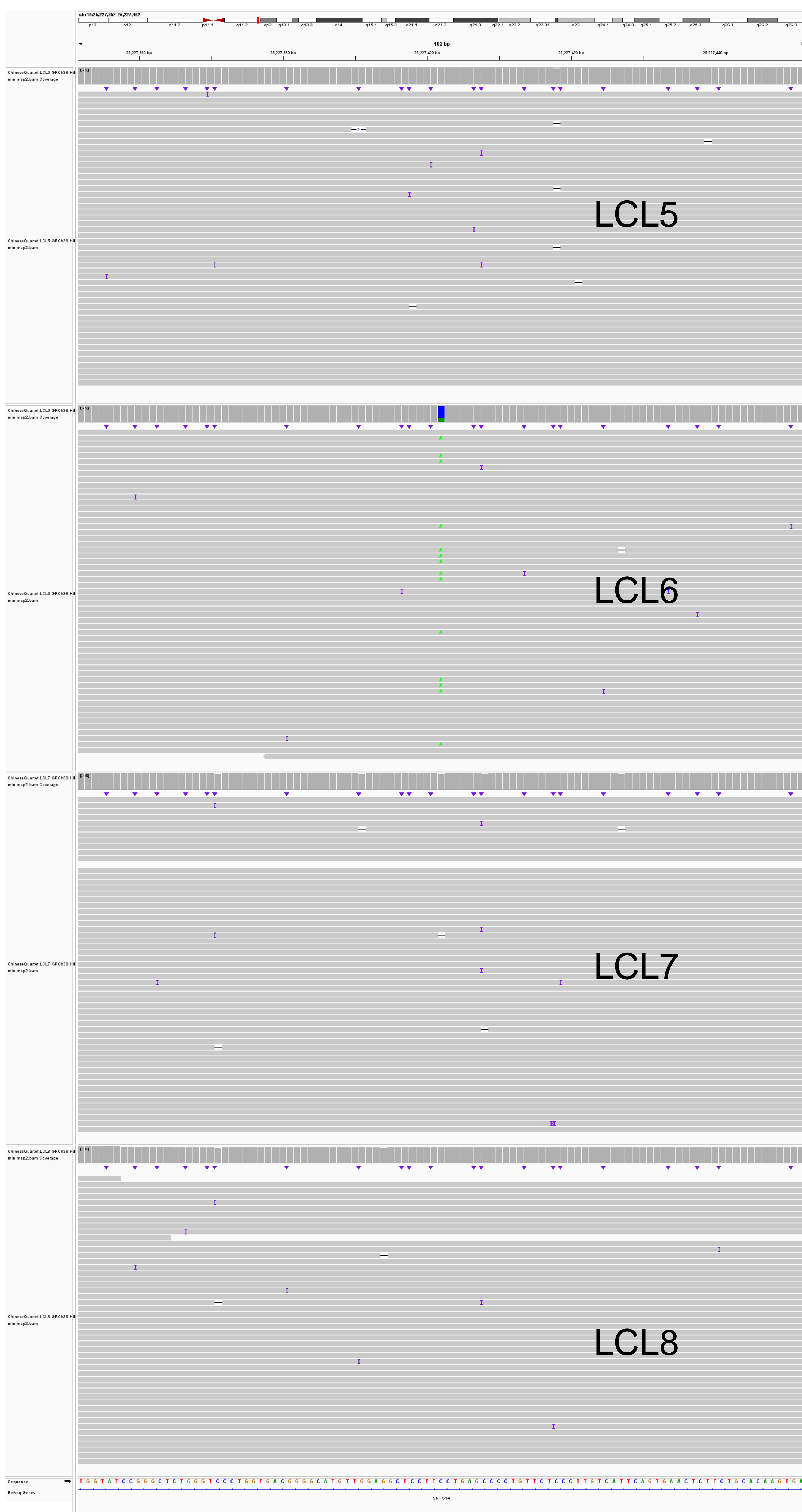


HiFi reads



Illumina reads

# POS:chr15:25227402 Report Somatic mutation by HiFi



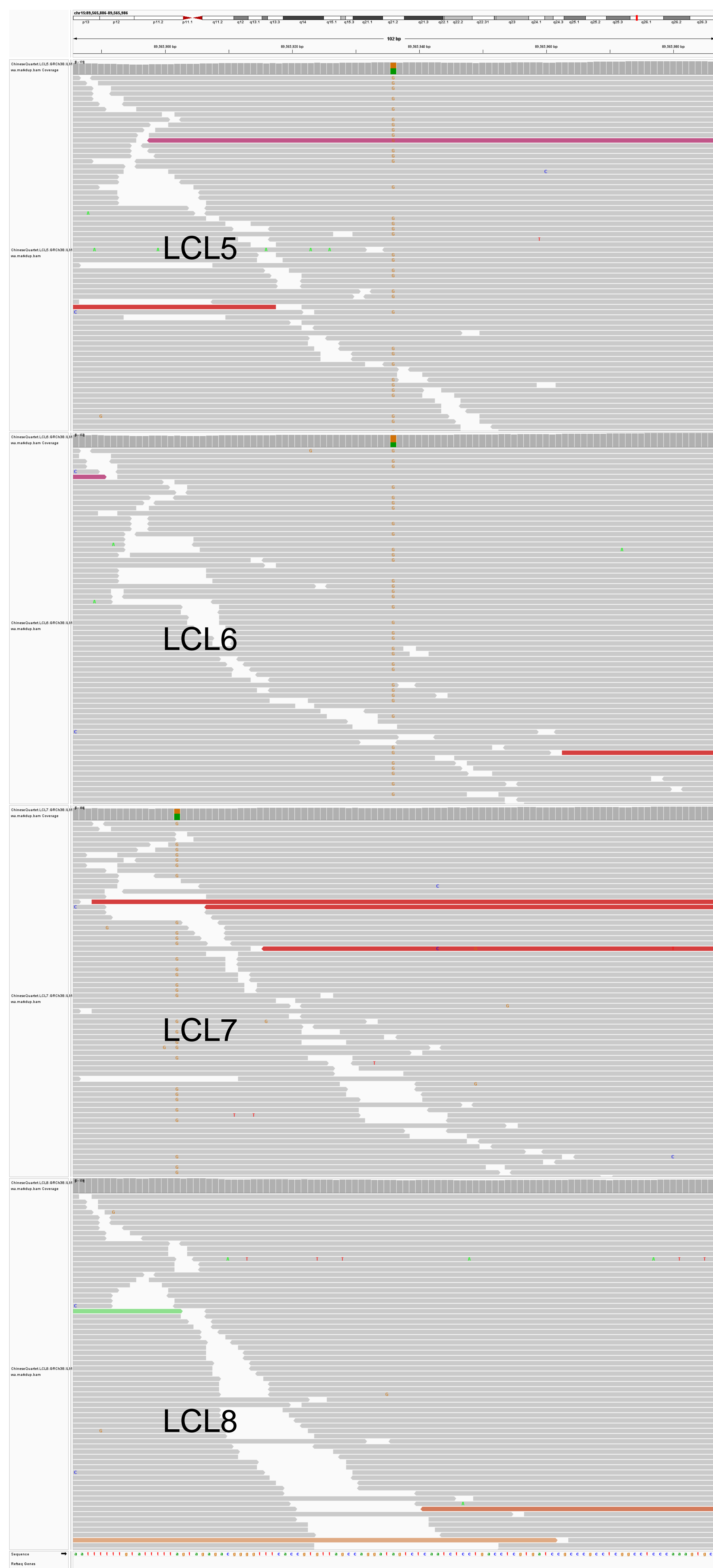
HiFi reads

Illumina reads

# POS:chr15:89565936 Report DeNovo mutation by ILM



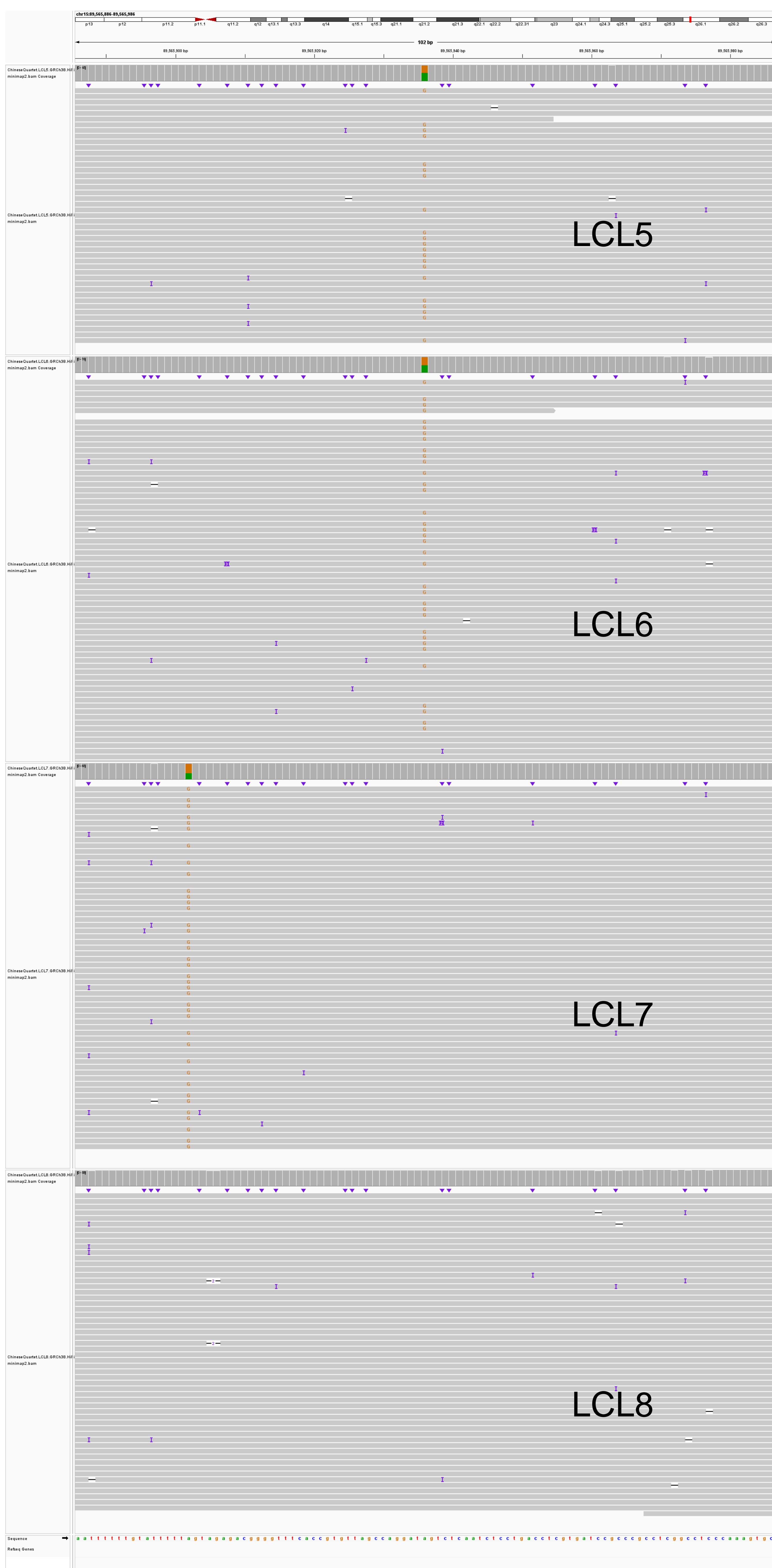
HiFi reads



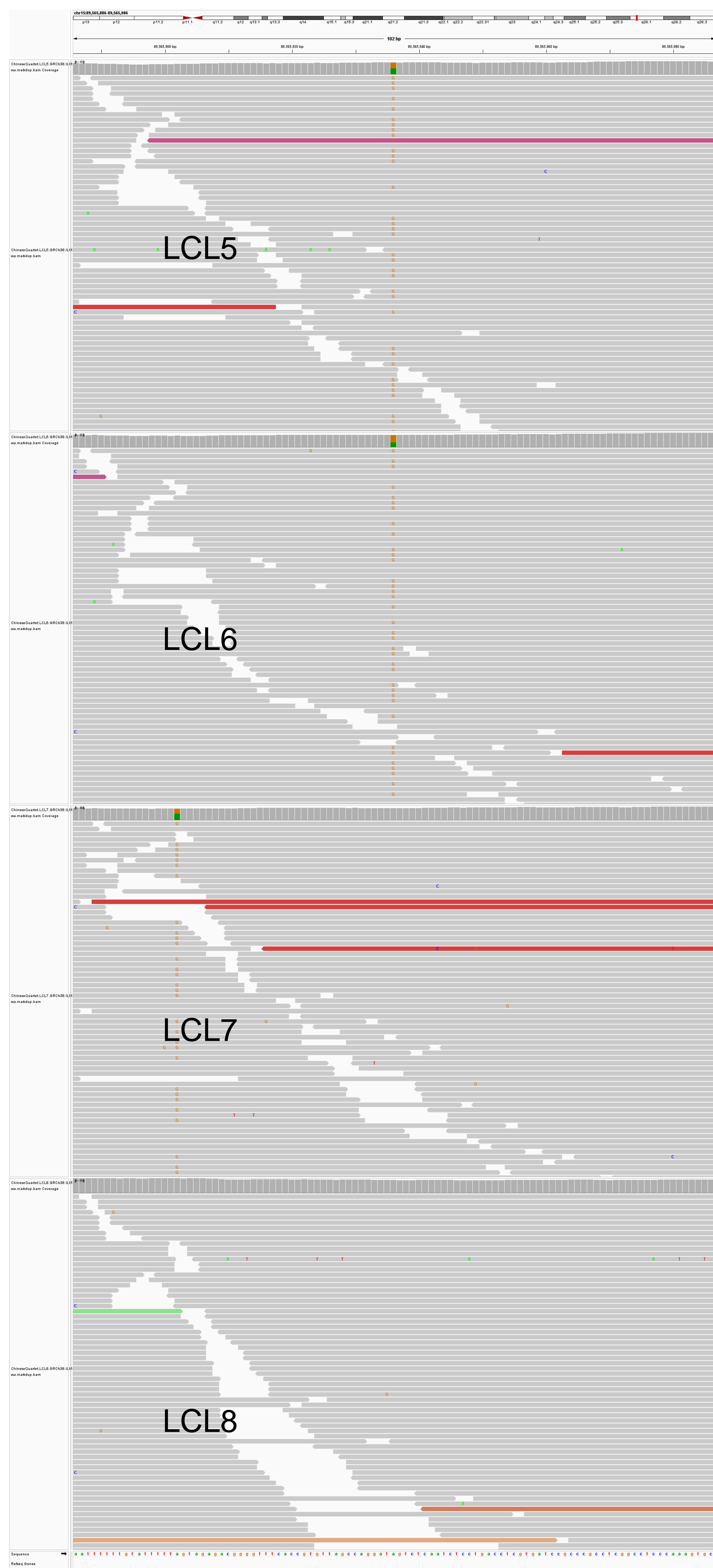
Illumina reads



# POS:chr15:89565936 Report DeNovo mutation by HiFi

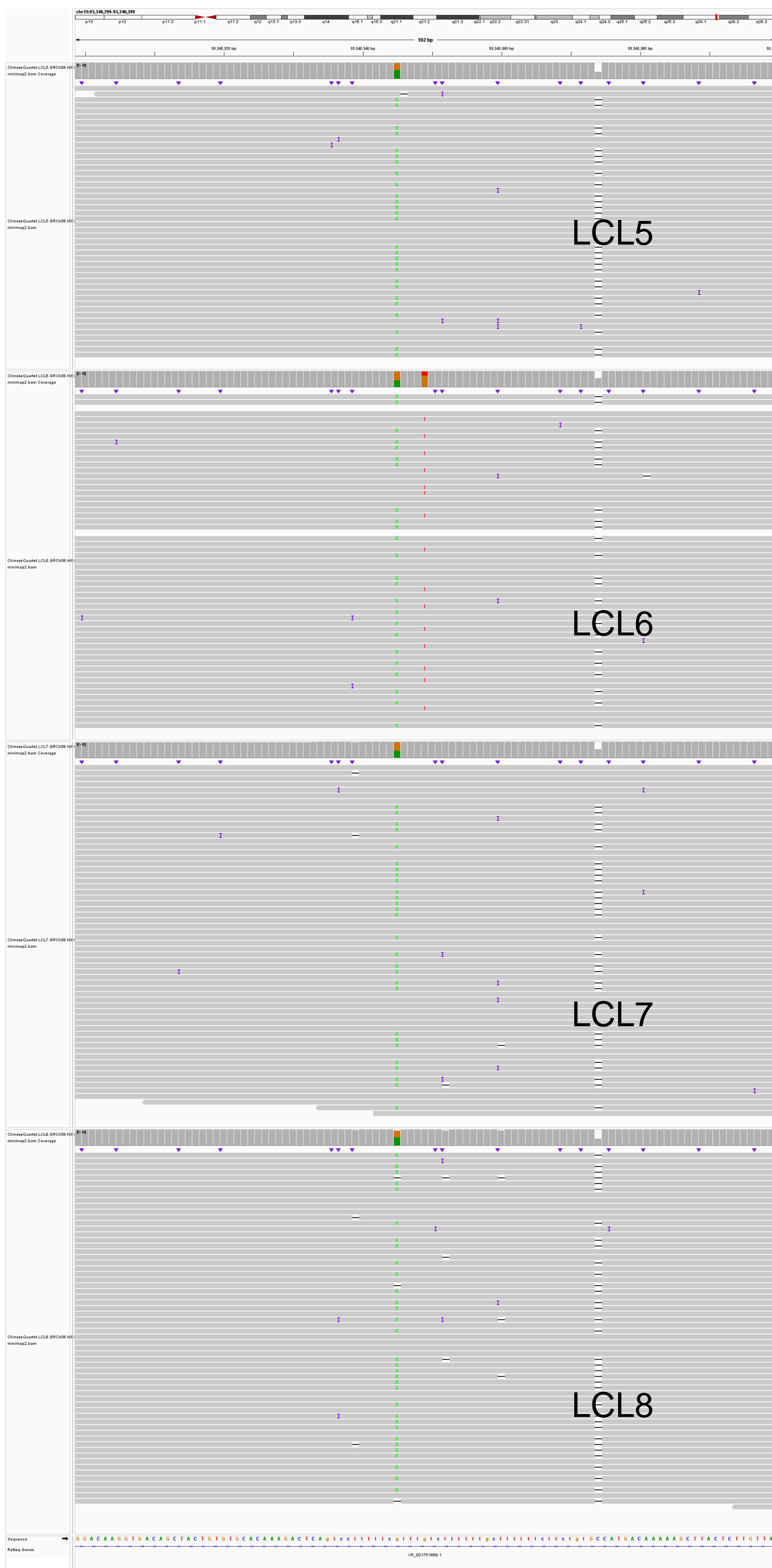


HiFi reads

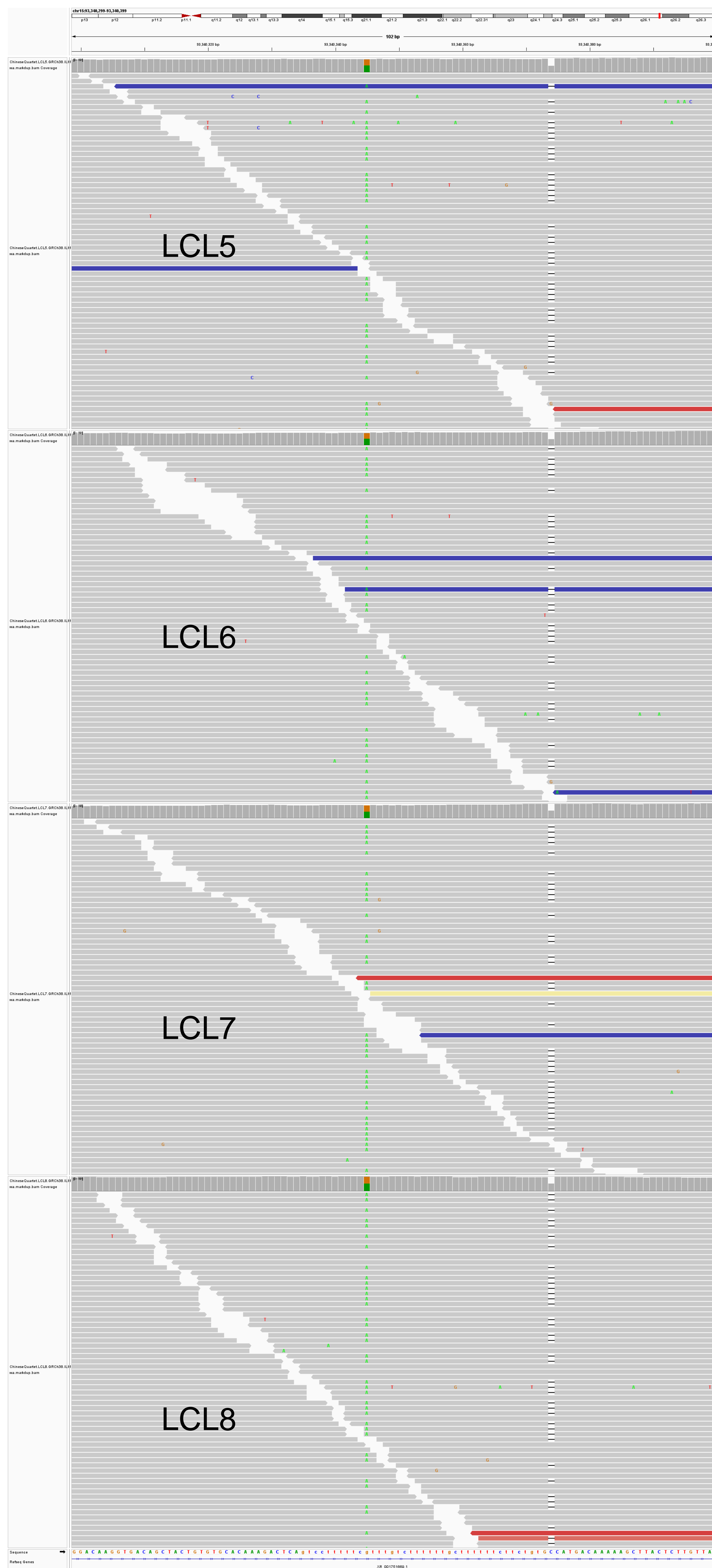


Illumina reads

# POS:chr15:93340349 Report Somatic mutation by HiFi



HiFi reads



Illumina reads





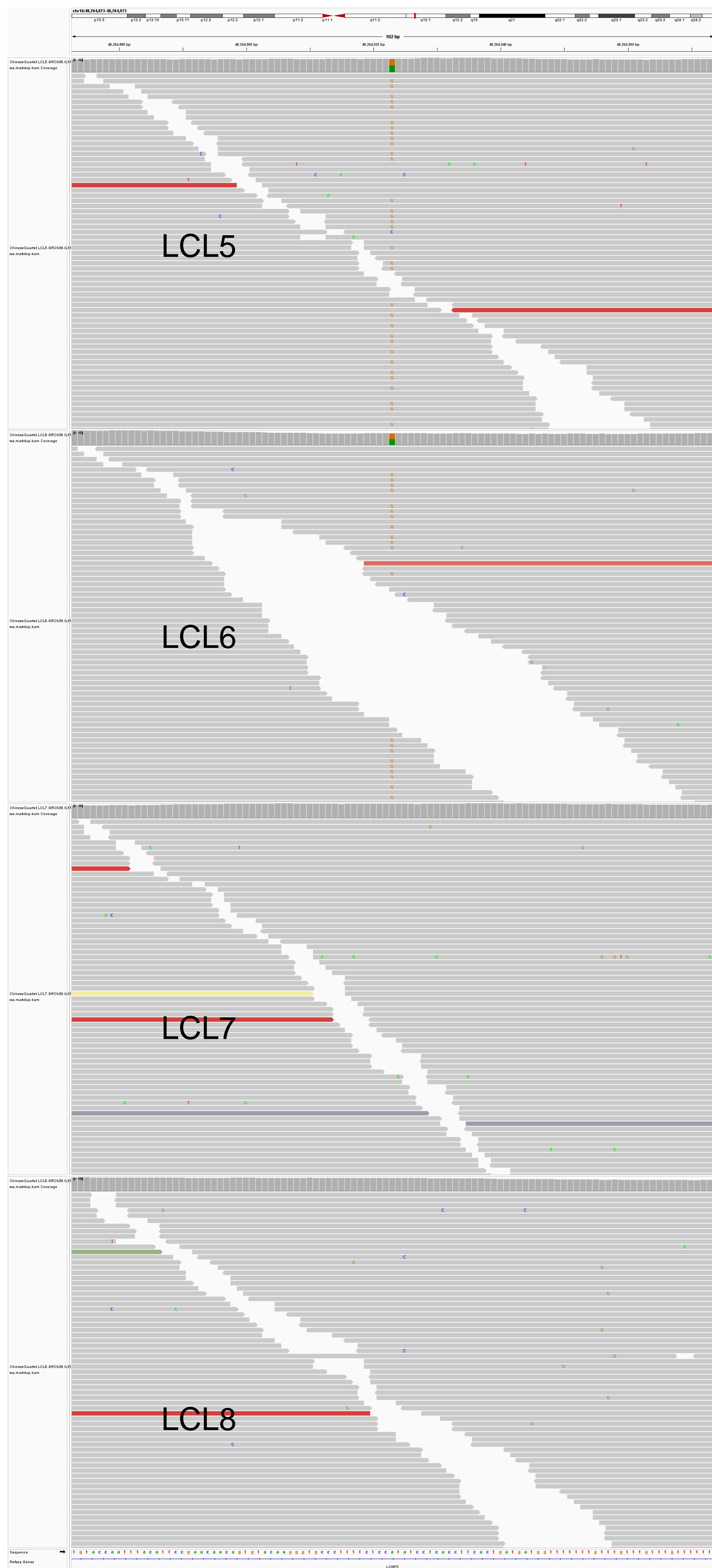




# POS:chr16:48264923 Report DeNovo mutation by ILM



HiFi reads

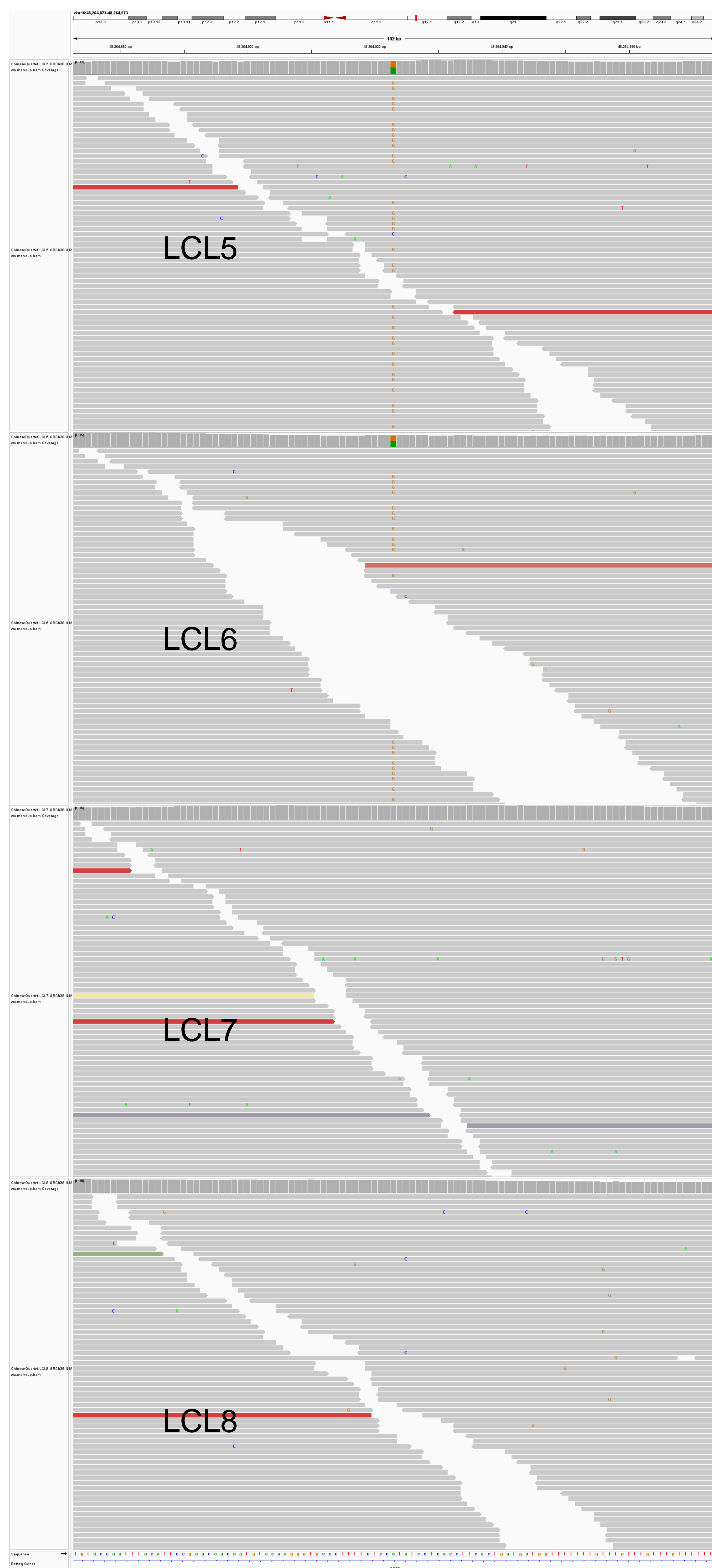


Illumina reads

# POS:chr16:48264923 Report DeNovo mutation by HiFi

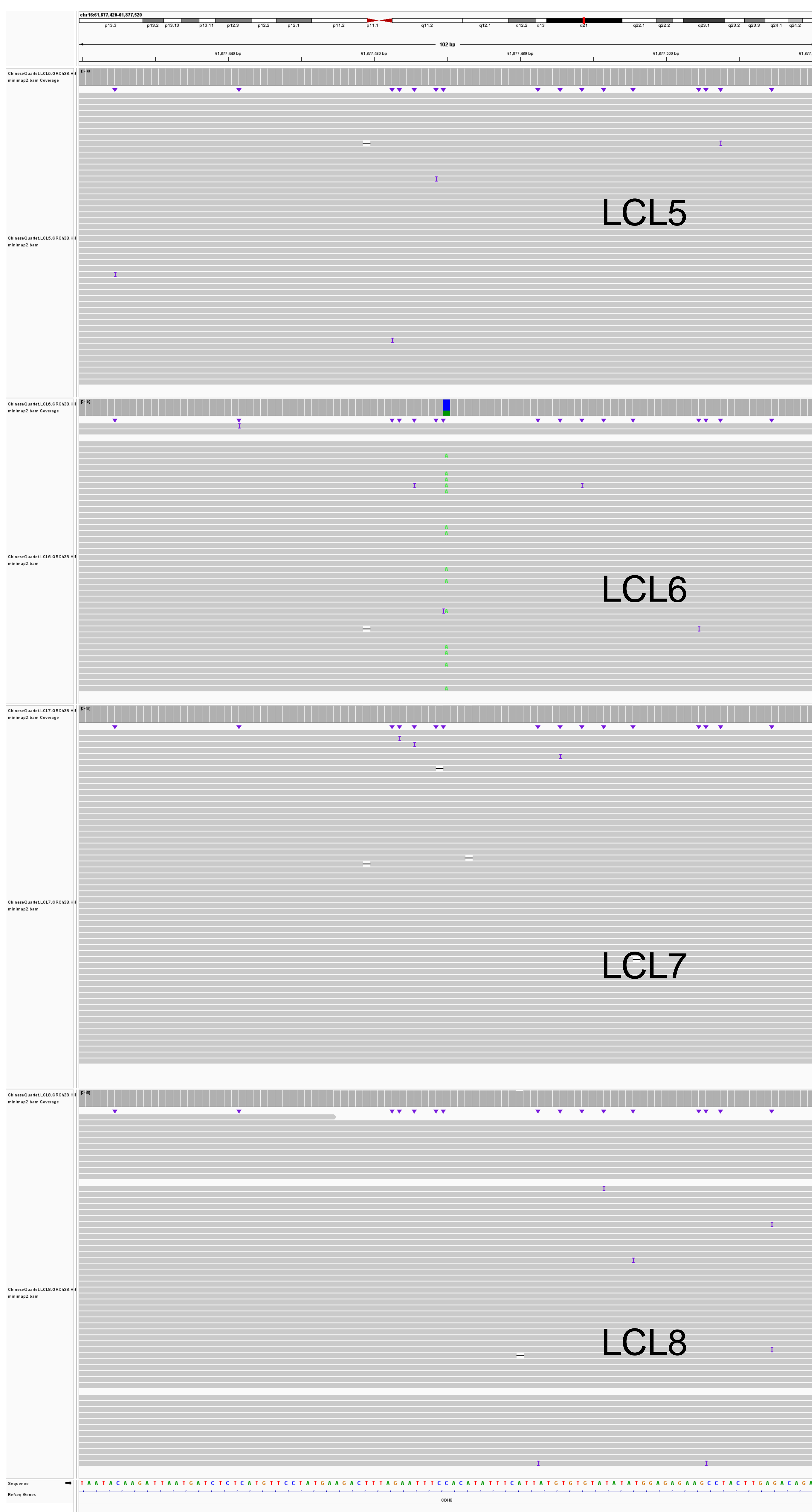


HiFi reads

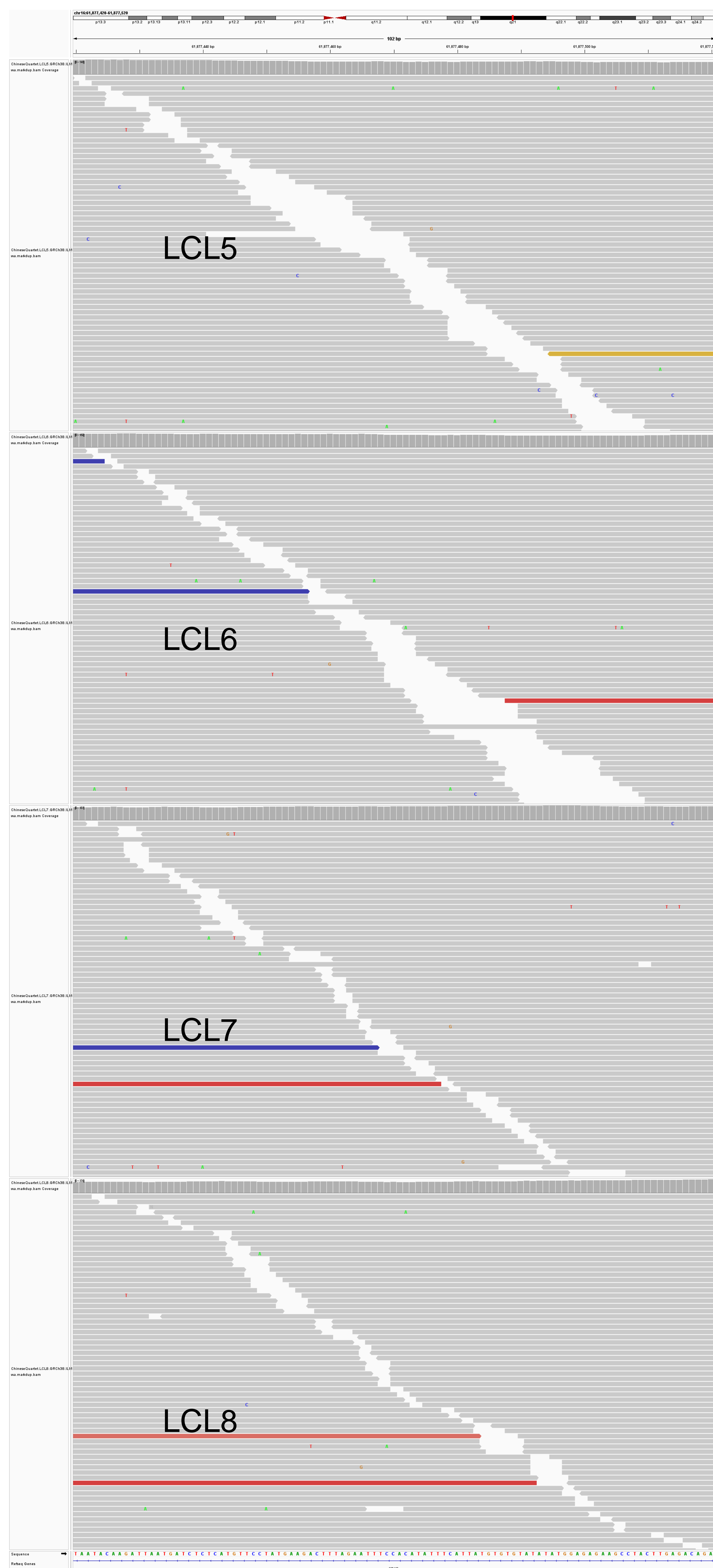


Illumina reads

# POS:chr16:61877470 Report Somatic mutation by HiFi

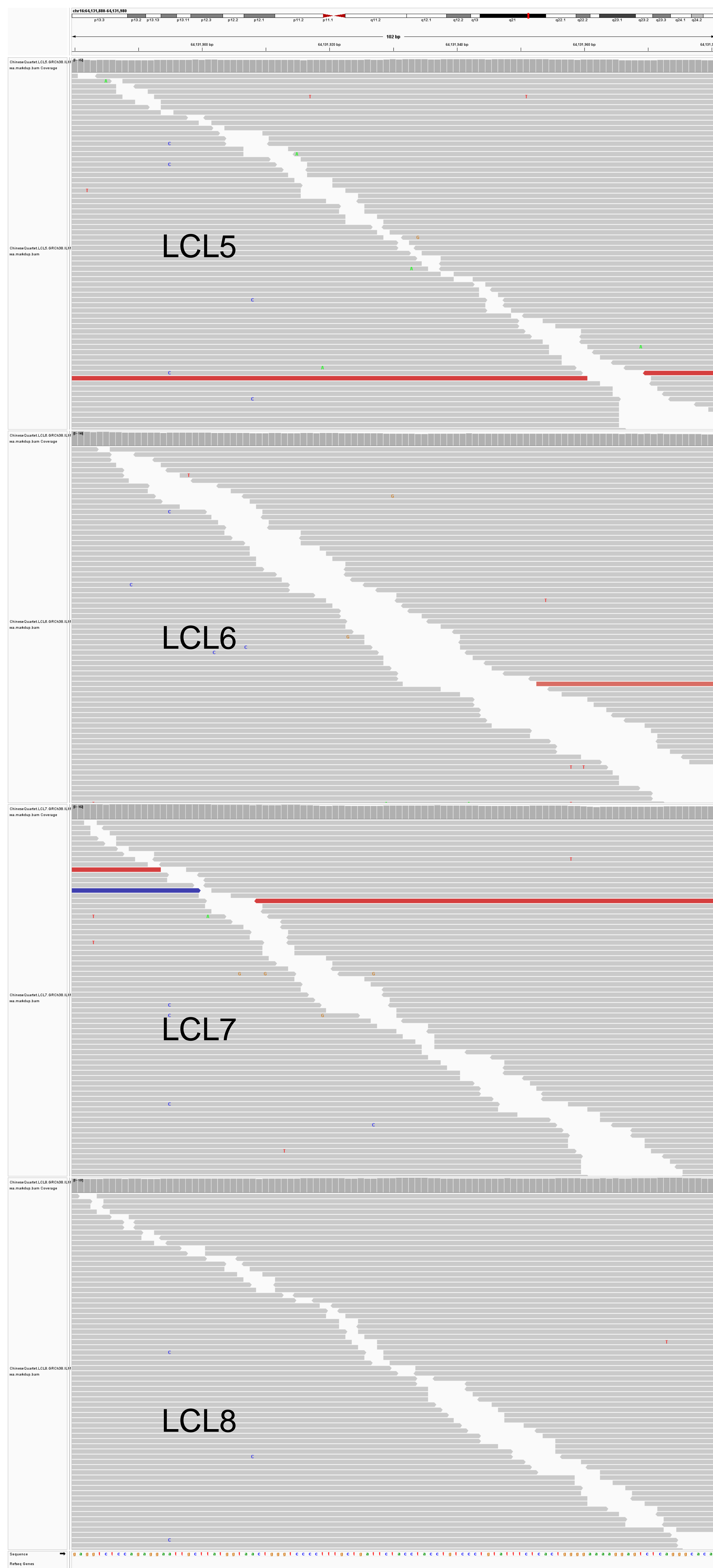
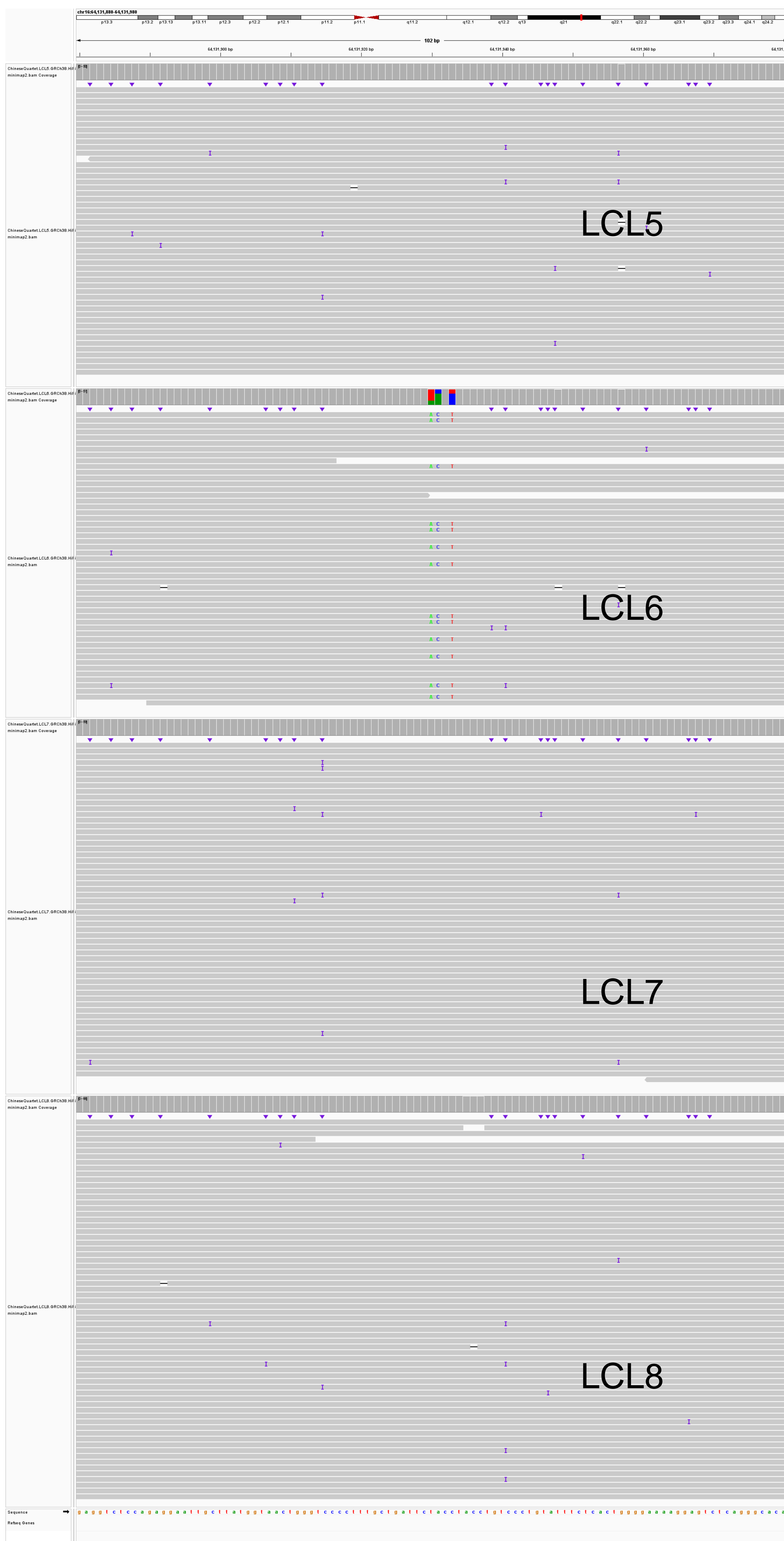


HiFi reads



Illumina reads

# POS:chr16:64131930 Report Somatic mutation by HiFi

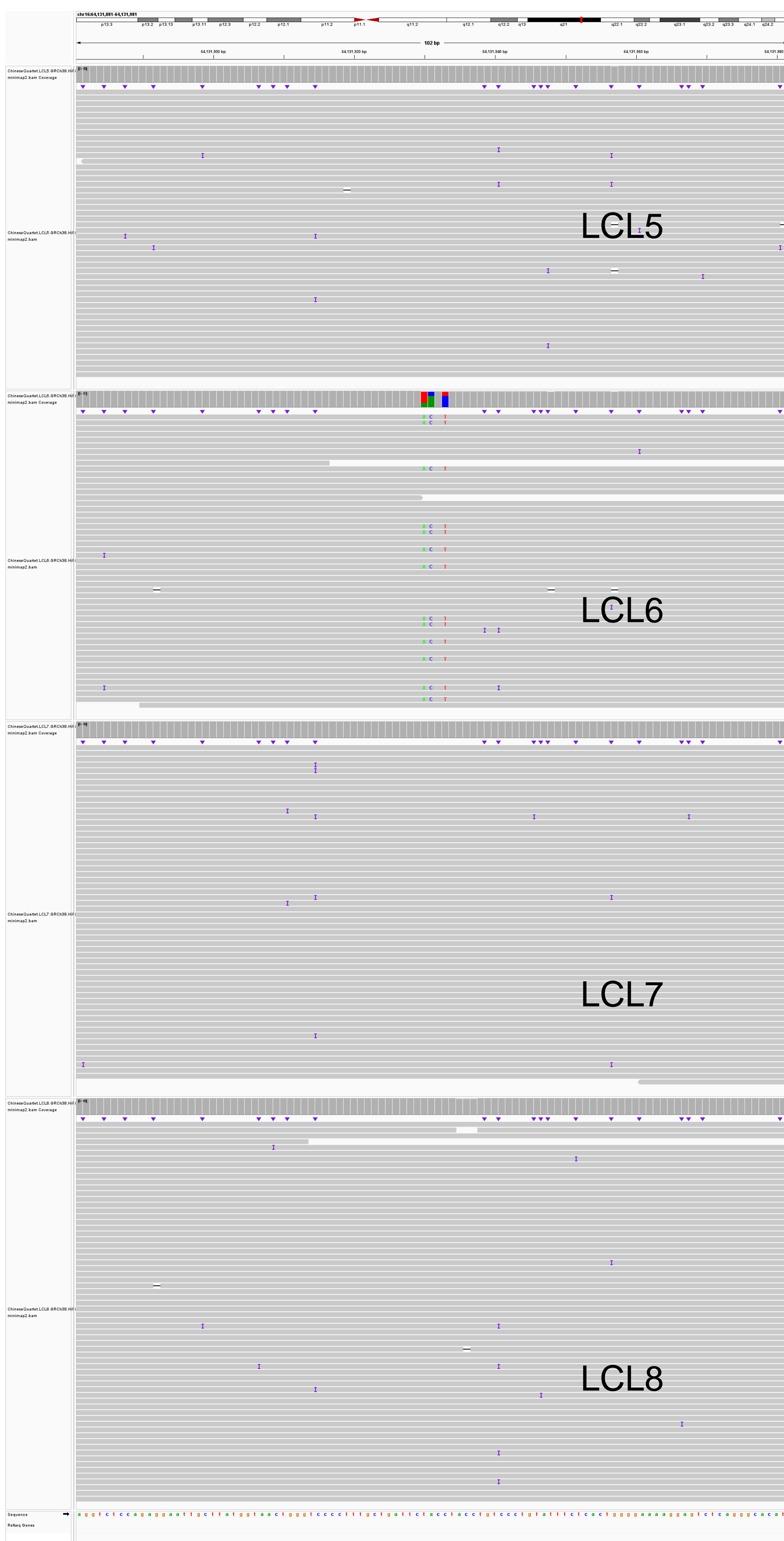


HiFi reads

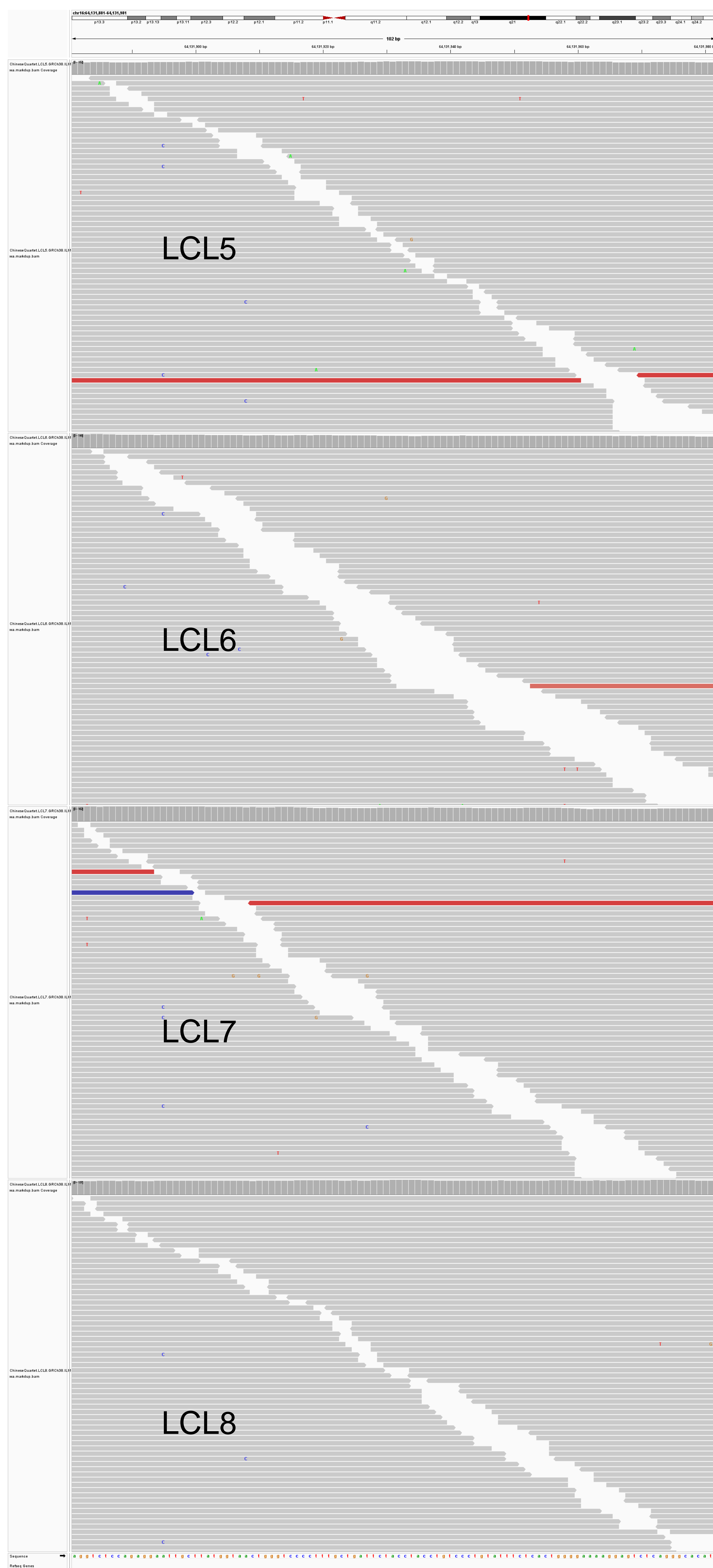
Illumina reads



# POS:chr16:64131931 Report Somatic mutation by HiFi

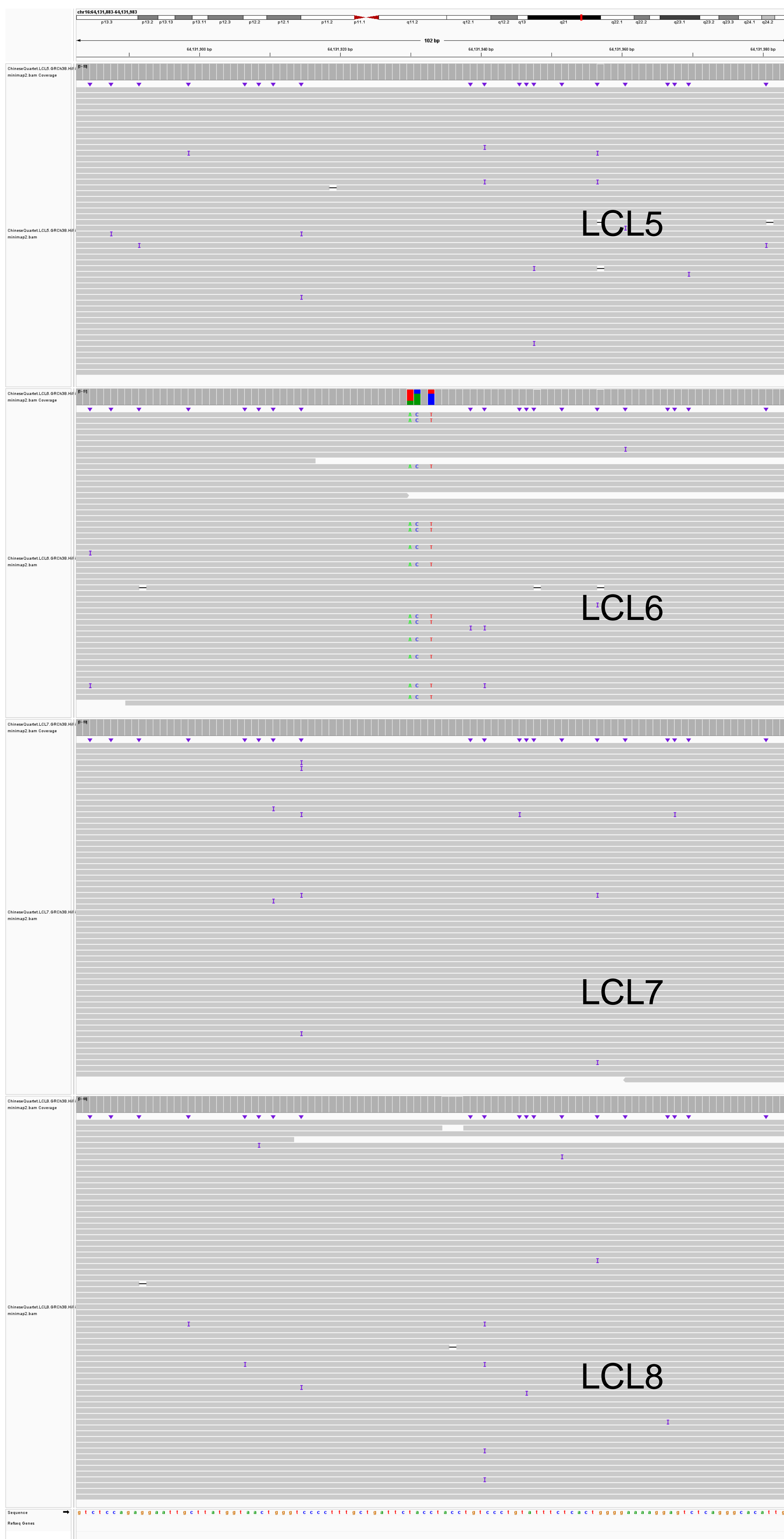


HiFi reads

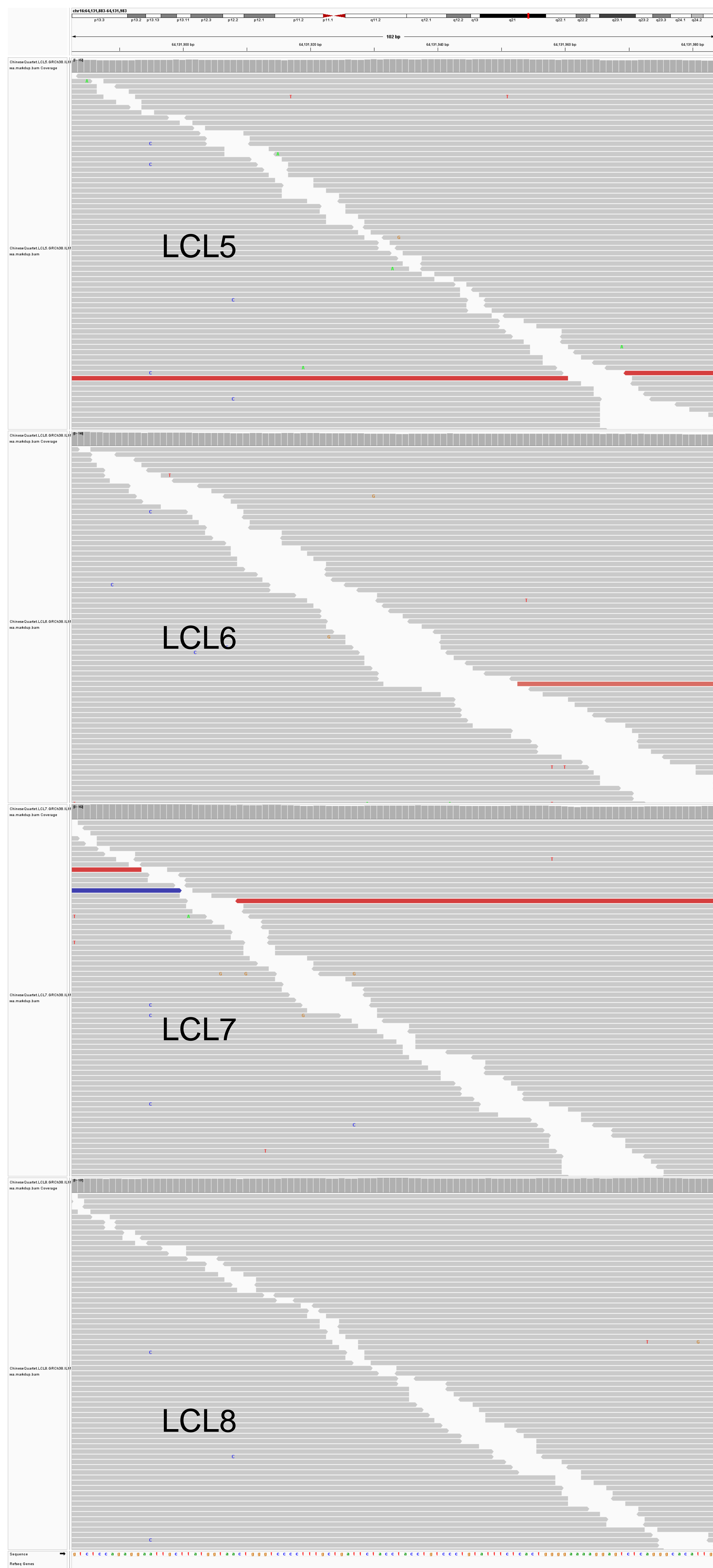


Illumina reads

POS:chr16:64131933 Report Somatic mutation by HiFi

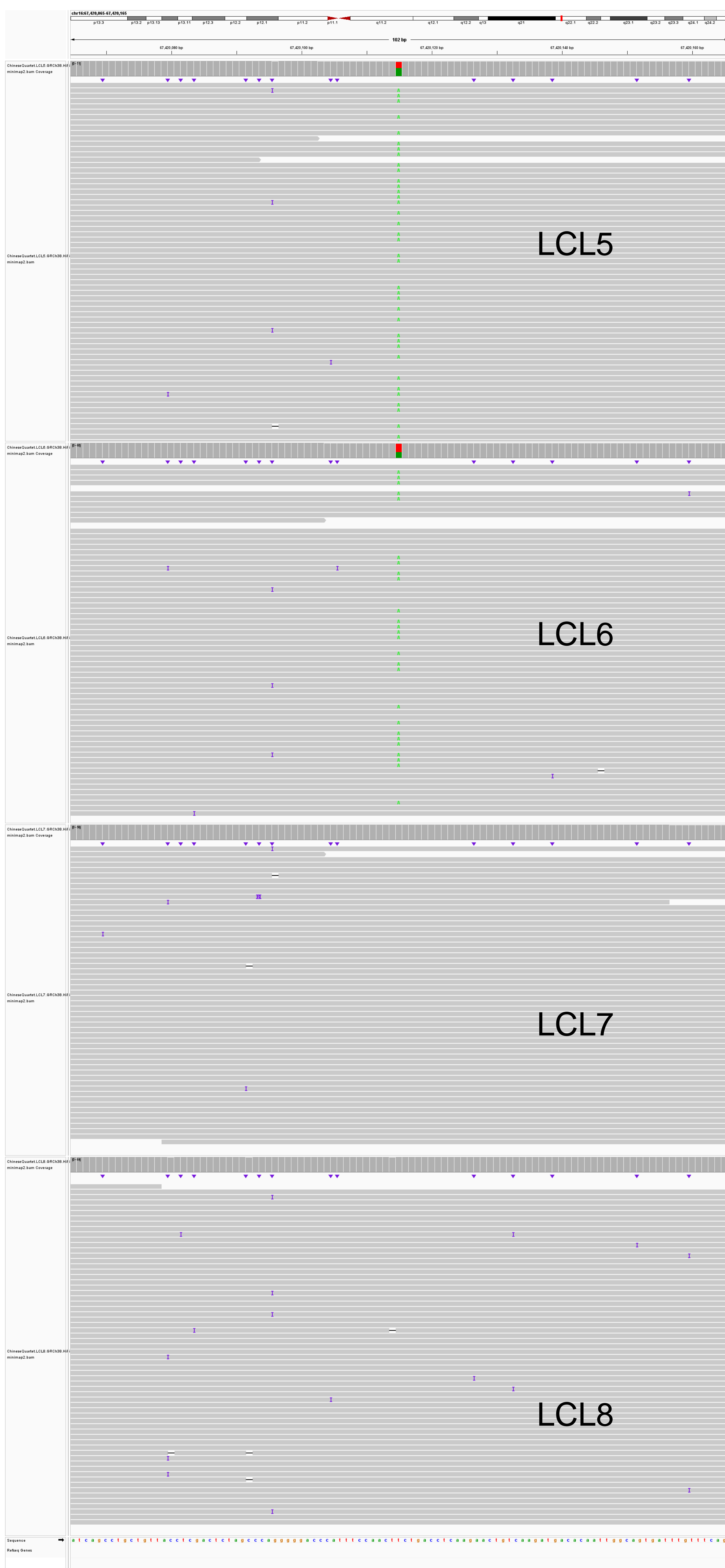


HiFi reads

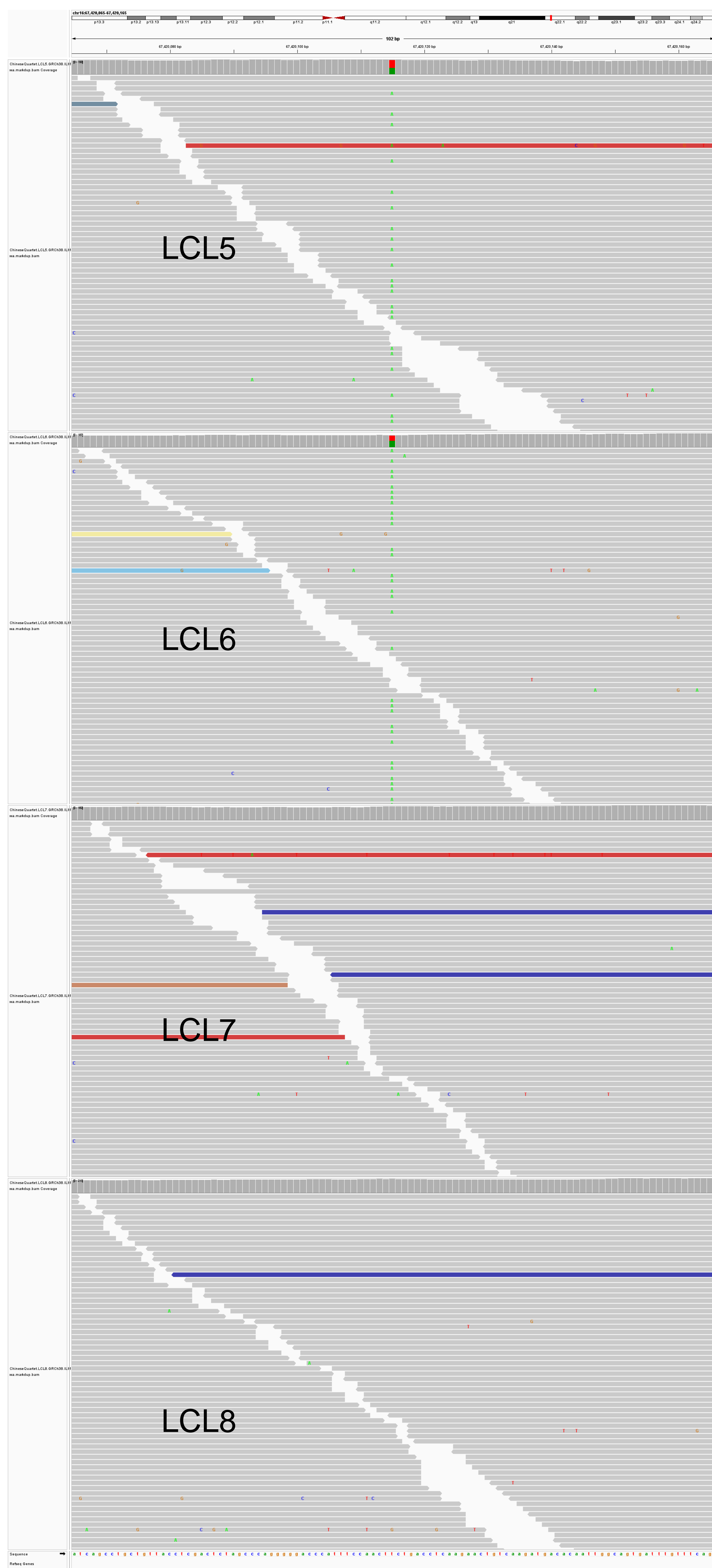


Illumina reads

# POS:chr16:67420115 Report DeNovo mutation by ILM

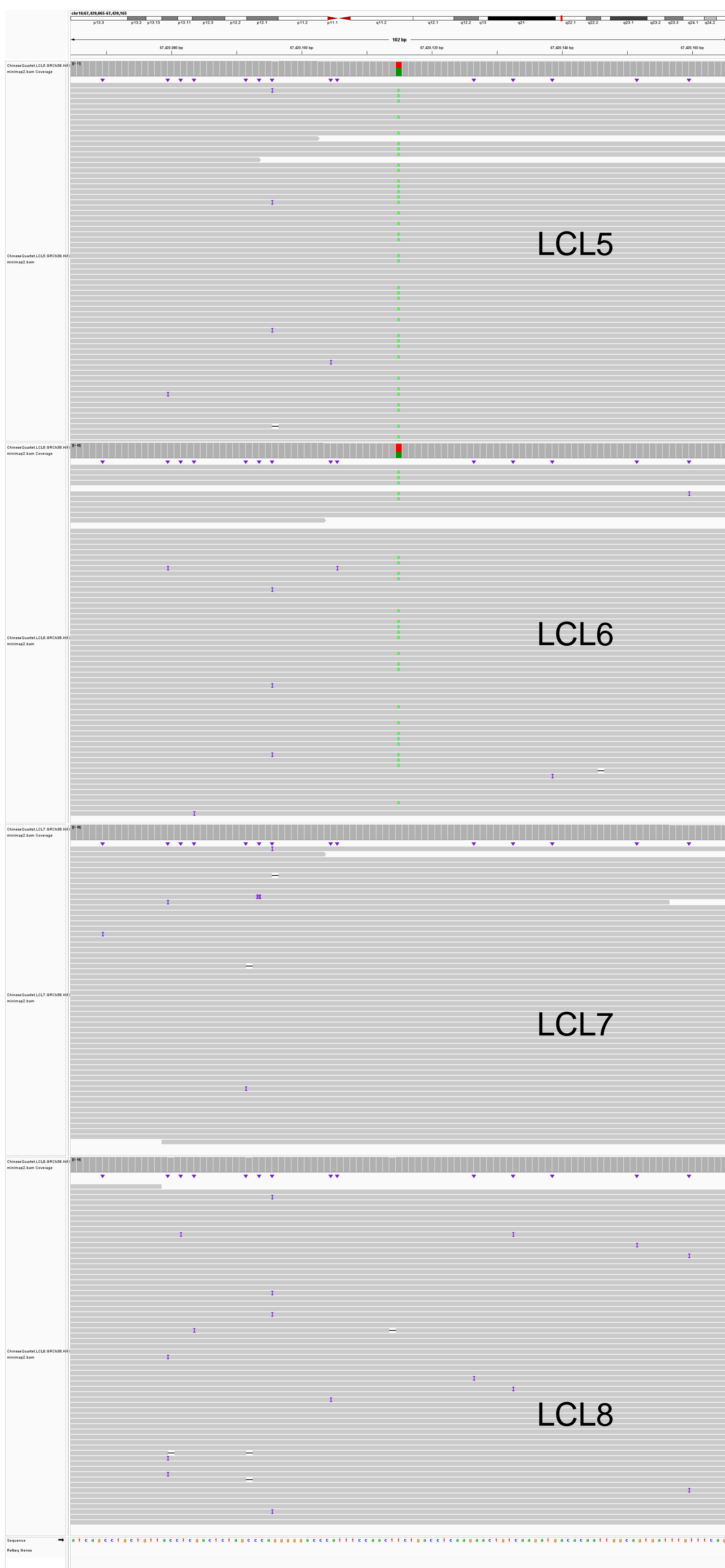


HiFi reads

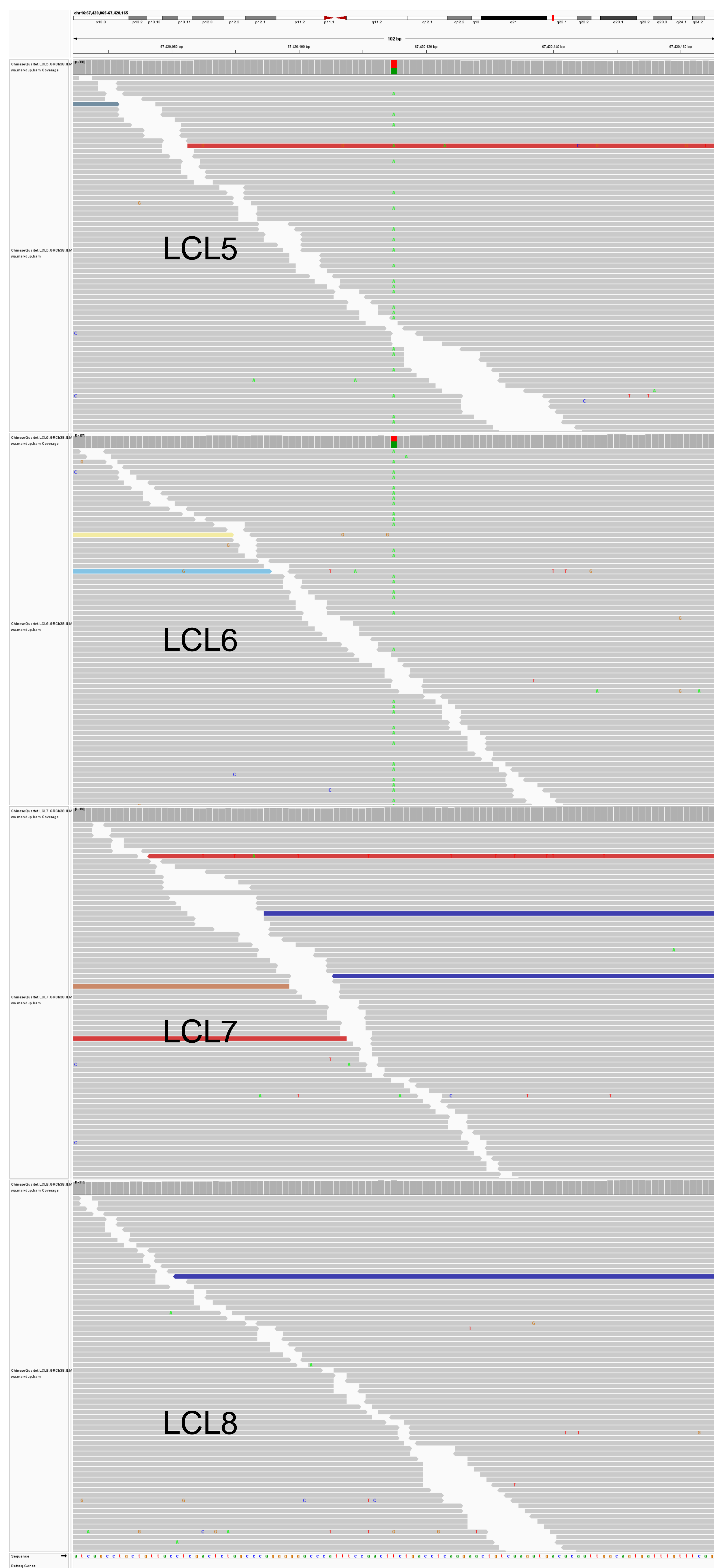


Illumina reads

# POS:chr16:67420115 Report DeNovo mutation by HiFi



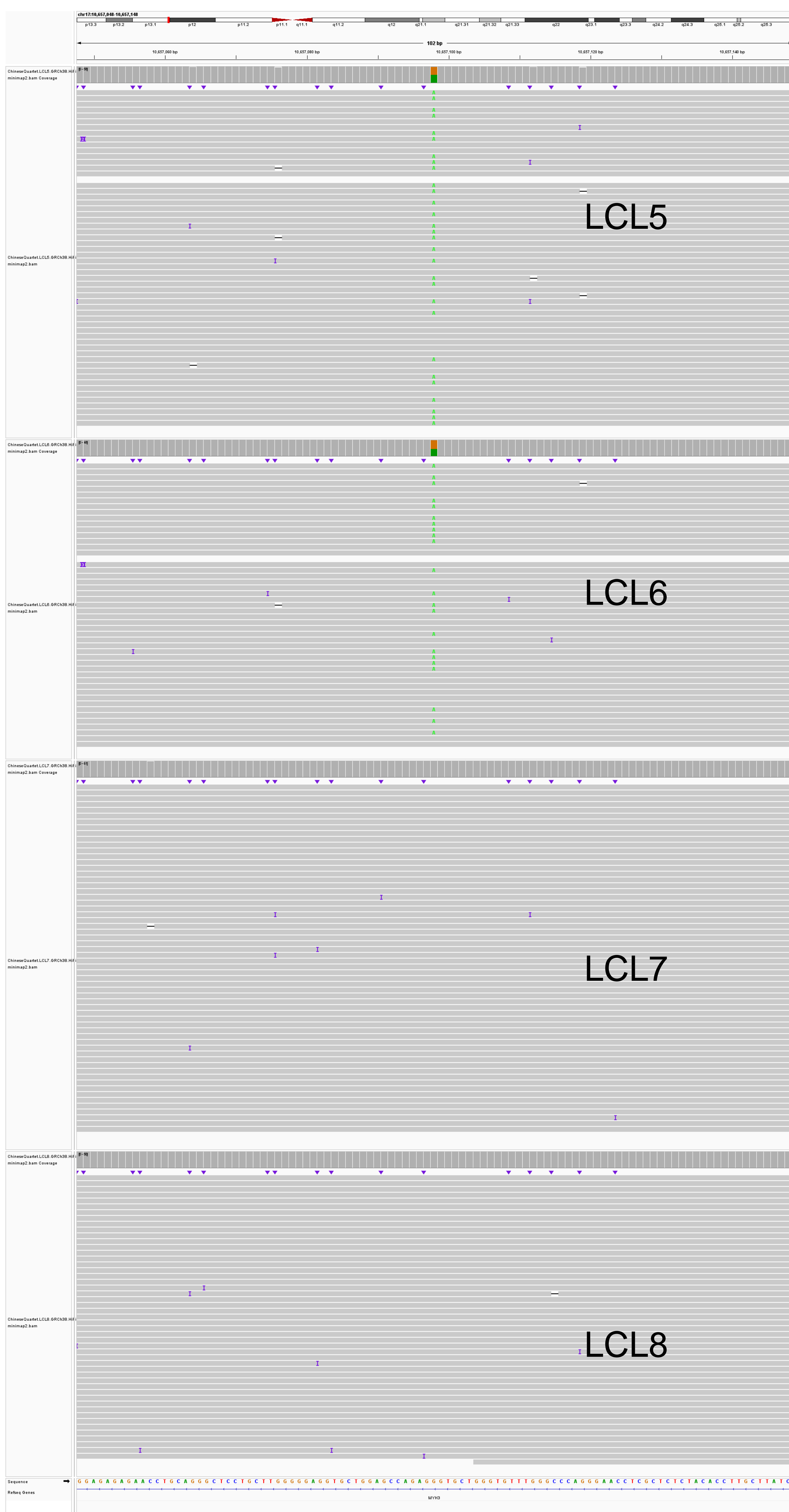
HiFi reads



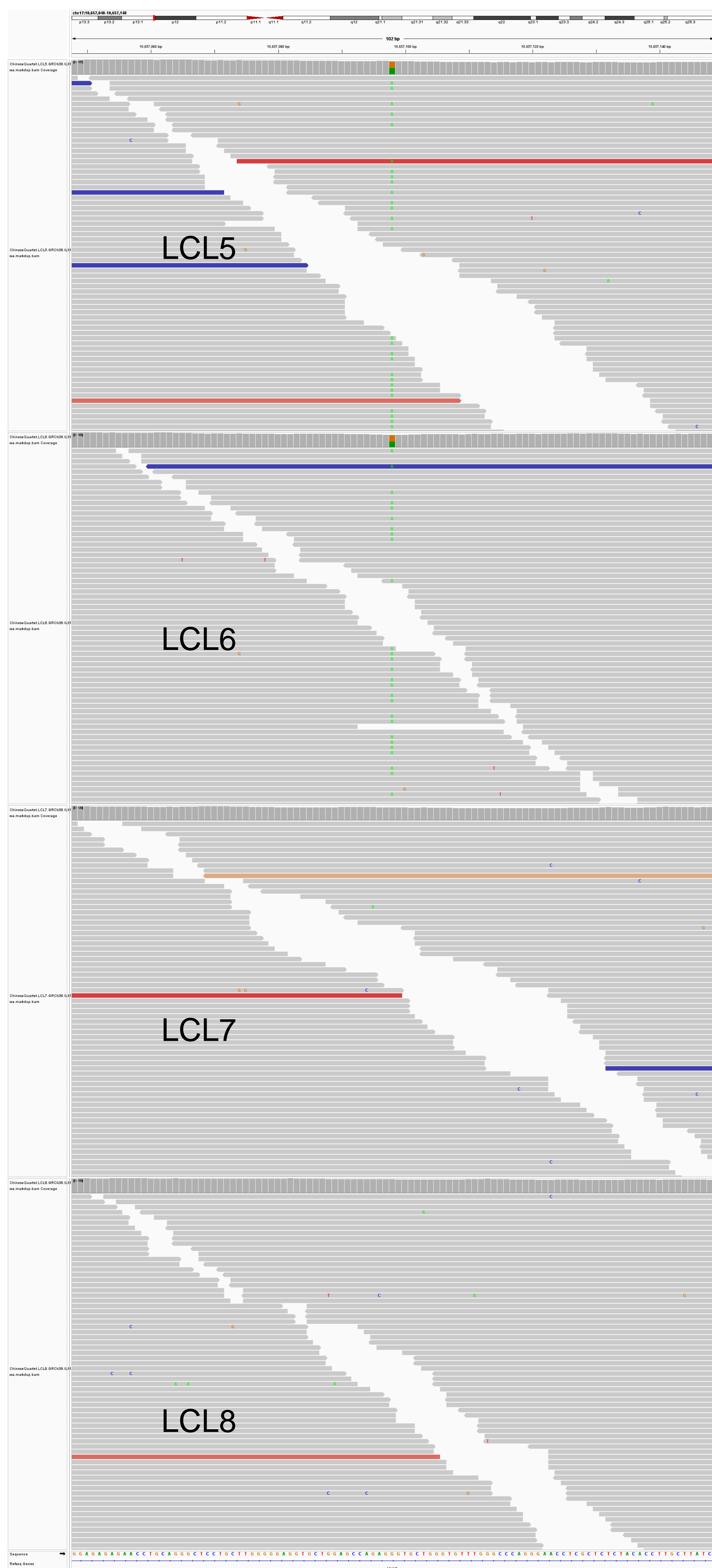
Illumina reads



# POS:chr17:10657098 Report DeNovo mutation by ILM

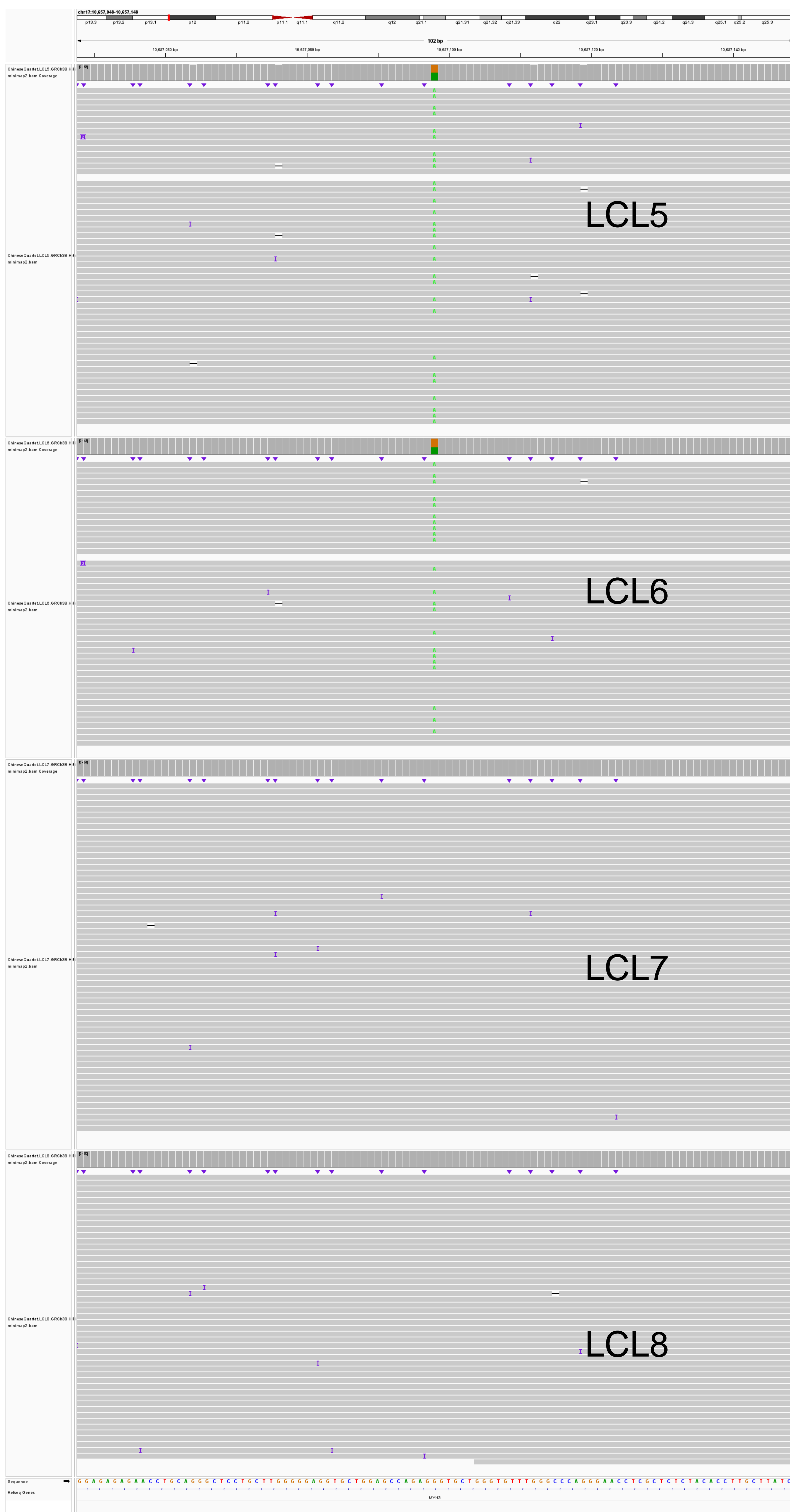


HiFi reads

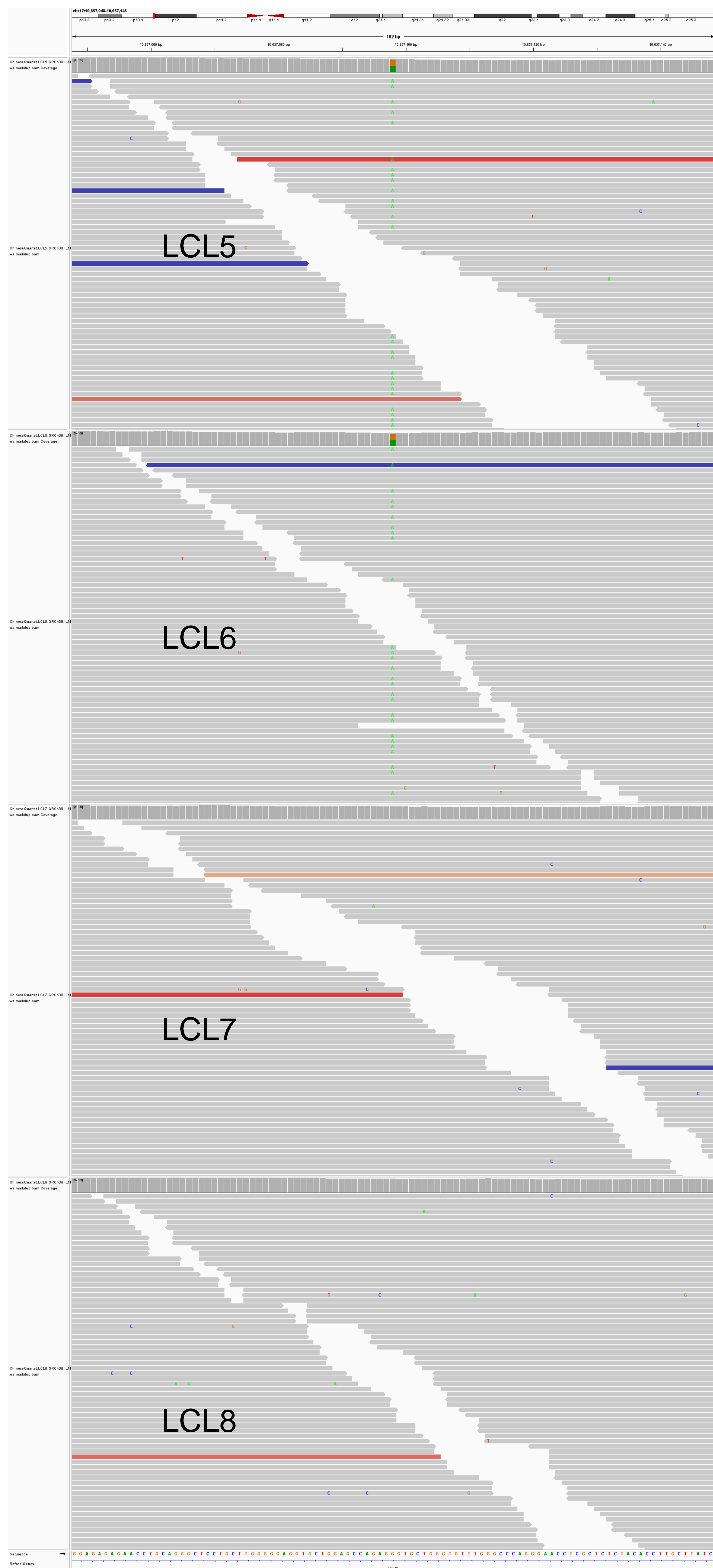


Illumina reads

# POS:chr17:10657098 Report DeNovo mutation by HiFi

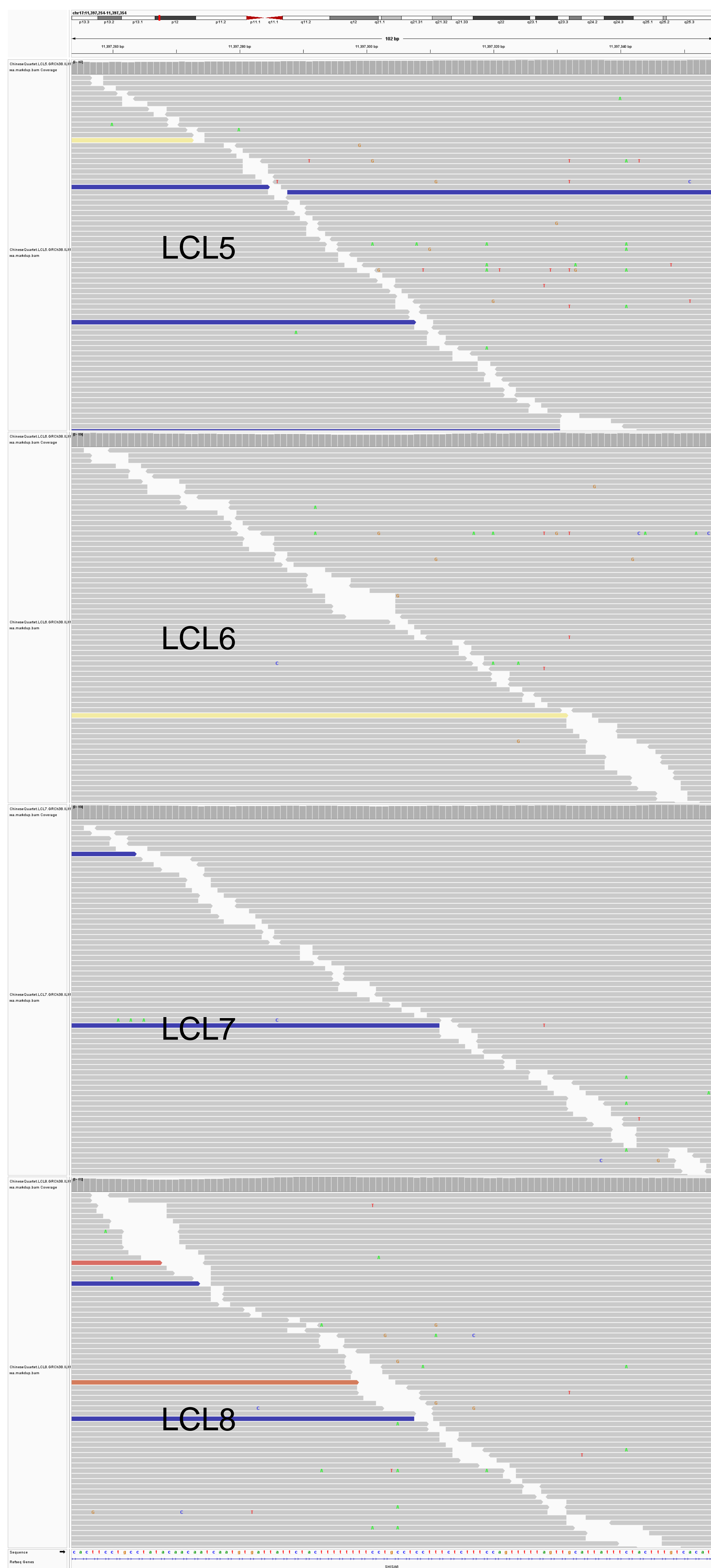
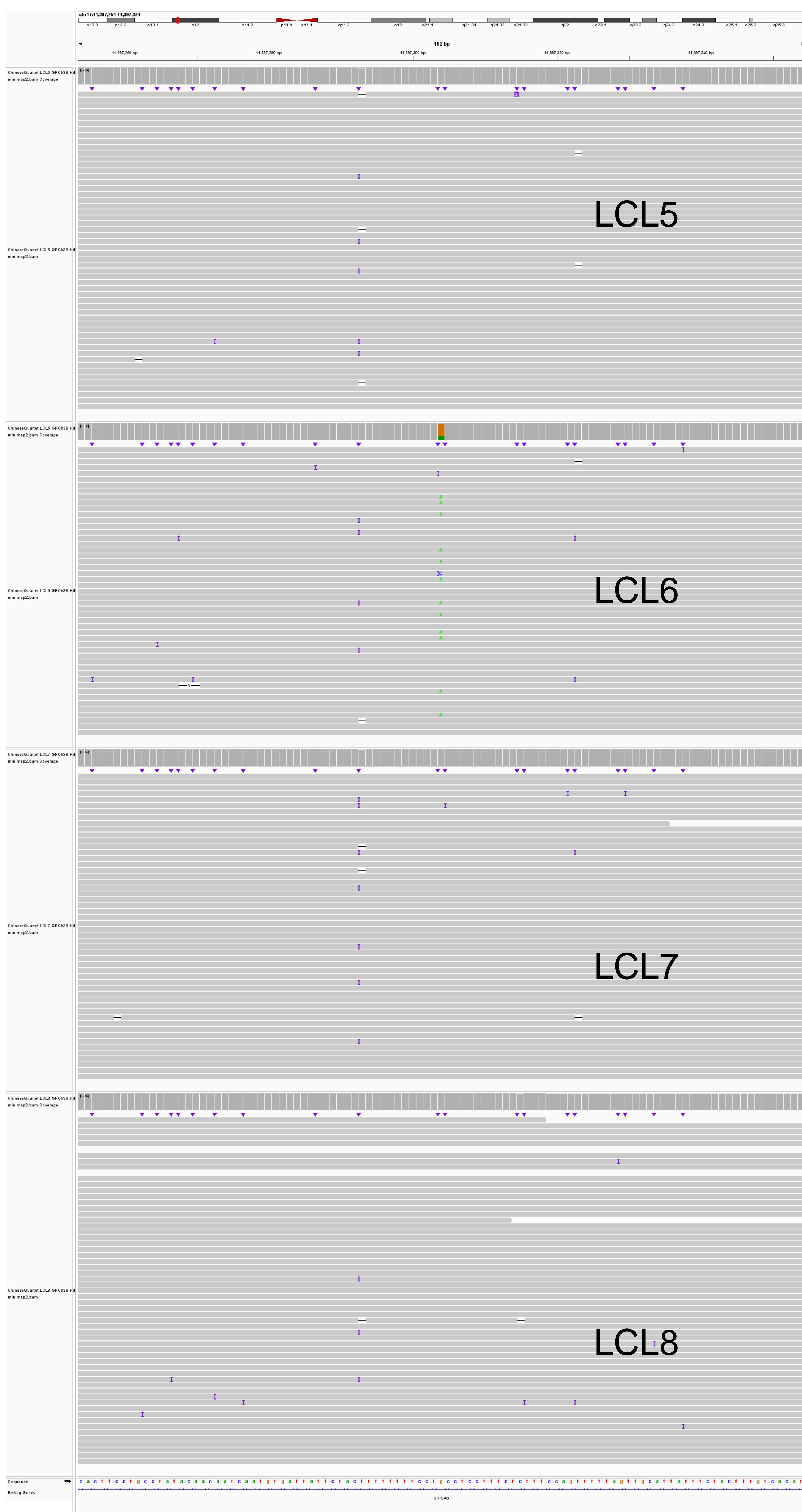


HiFi reads



Illumina reads

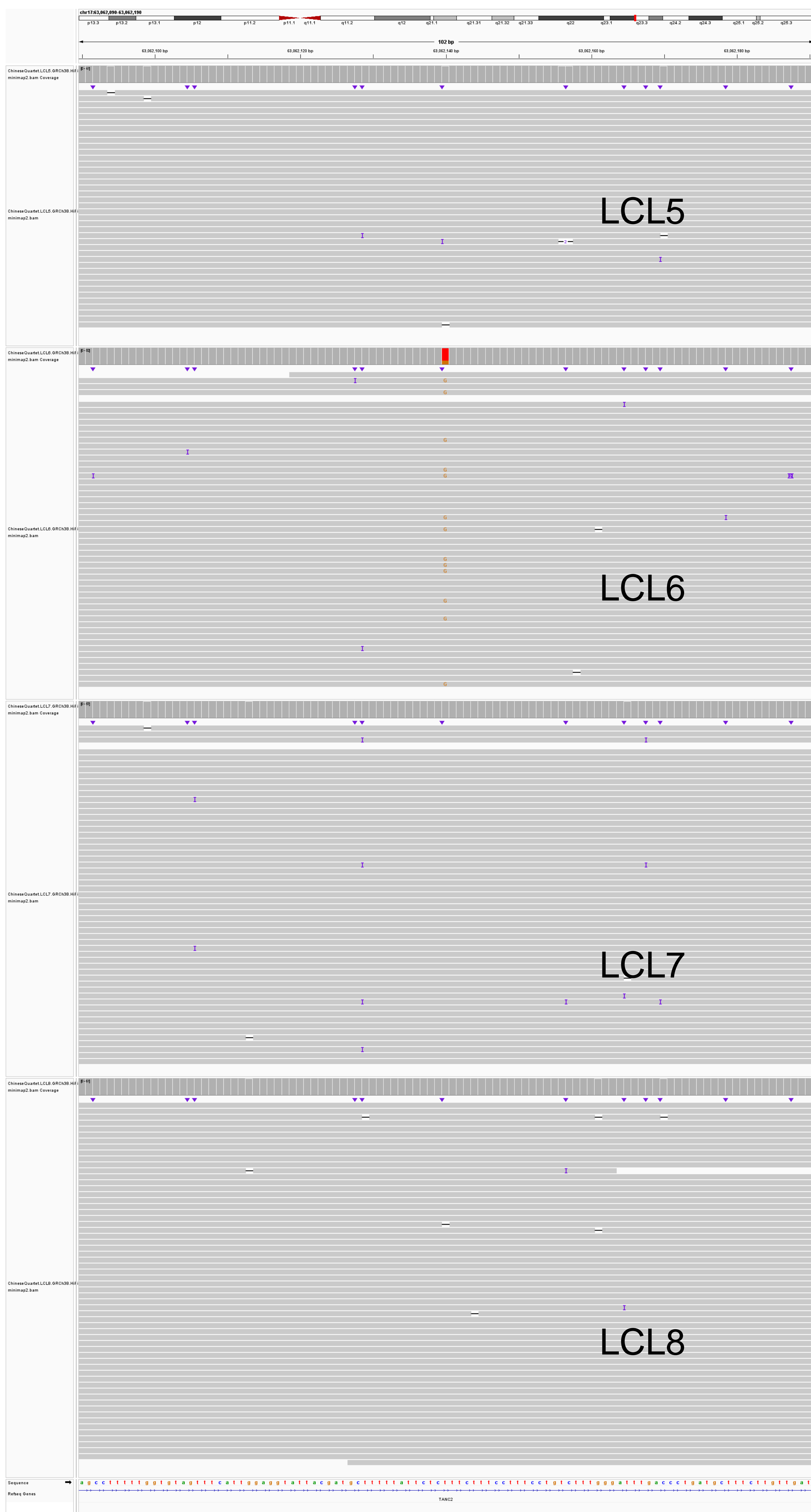
# POS:chr17:11397304 Report Somatic mutation by HiFi



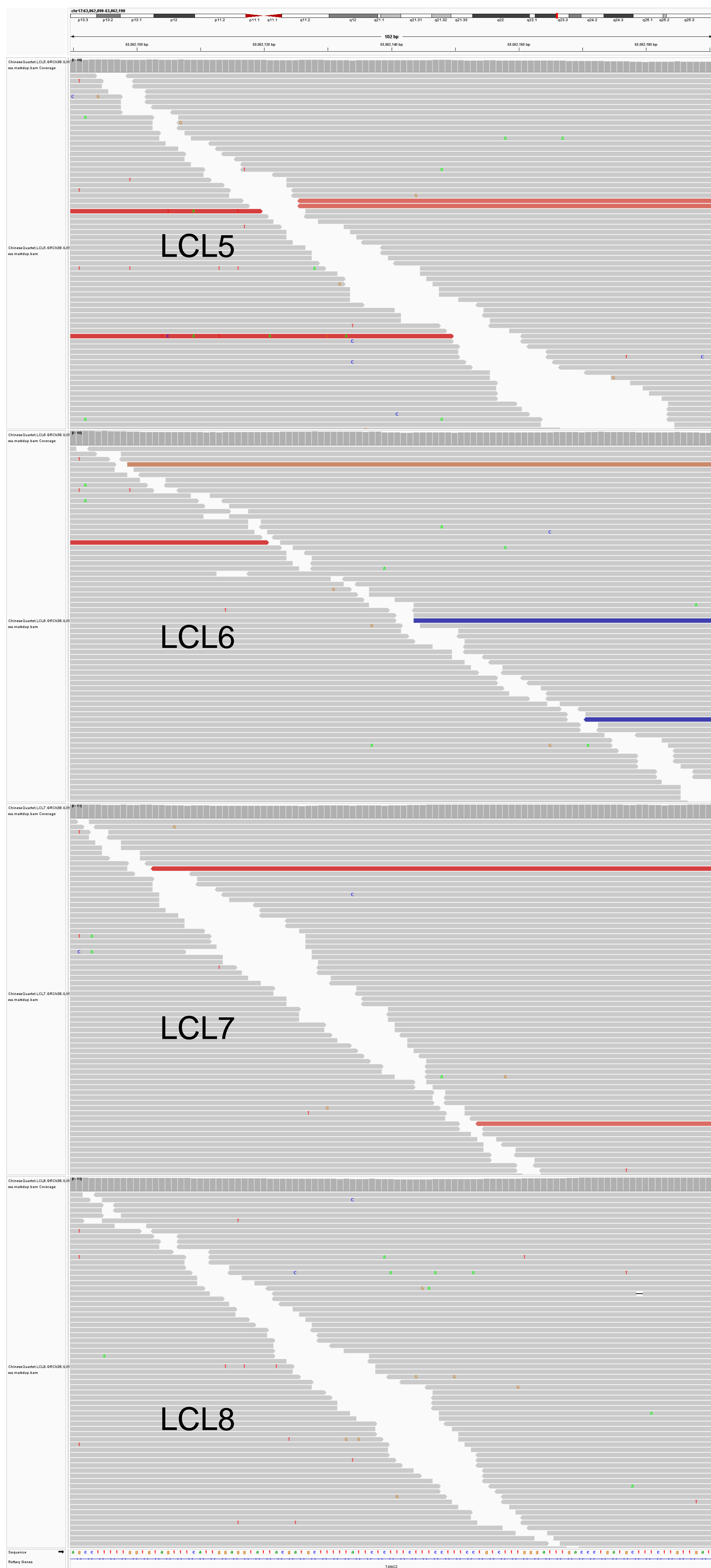
HiFi reads

Illumina reads

# POS:chr17:63062140 Report Somatic mutation by HiFi



HiFi reads



Illumina reads



# POS:chr18:9164909 Report Somatic mutation by HiFi

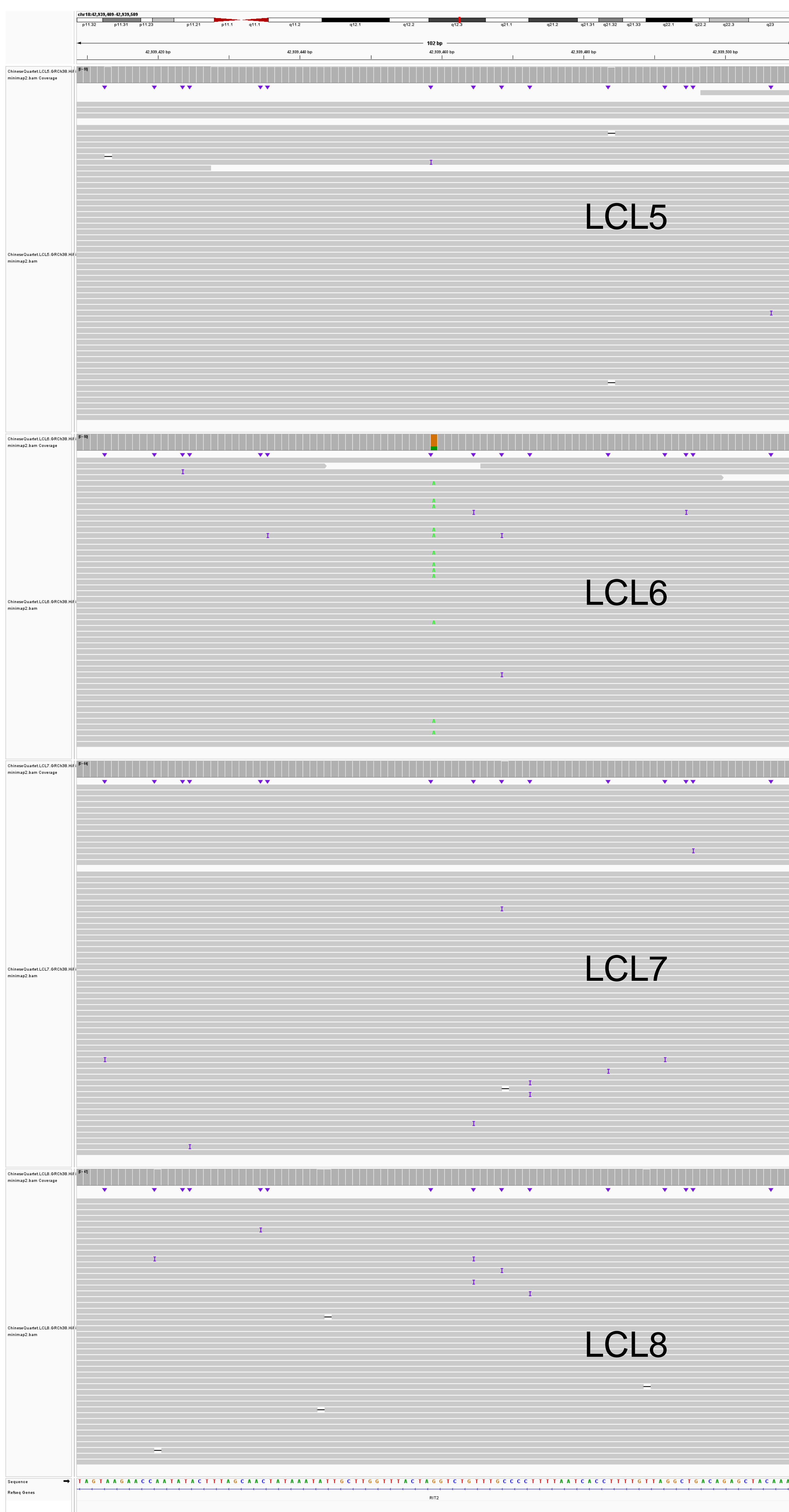


HiFi reads

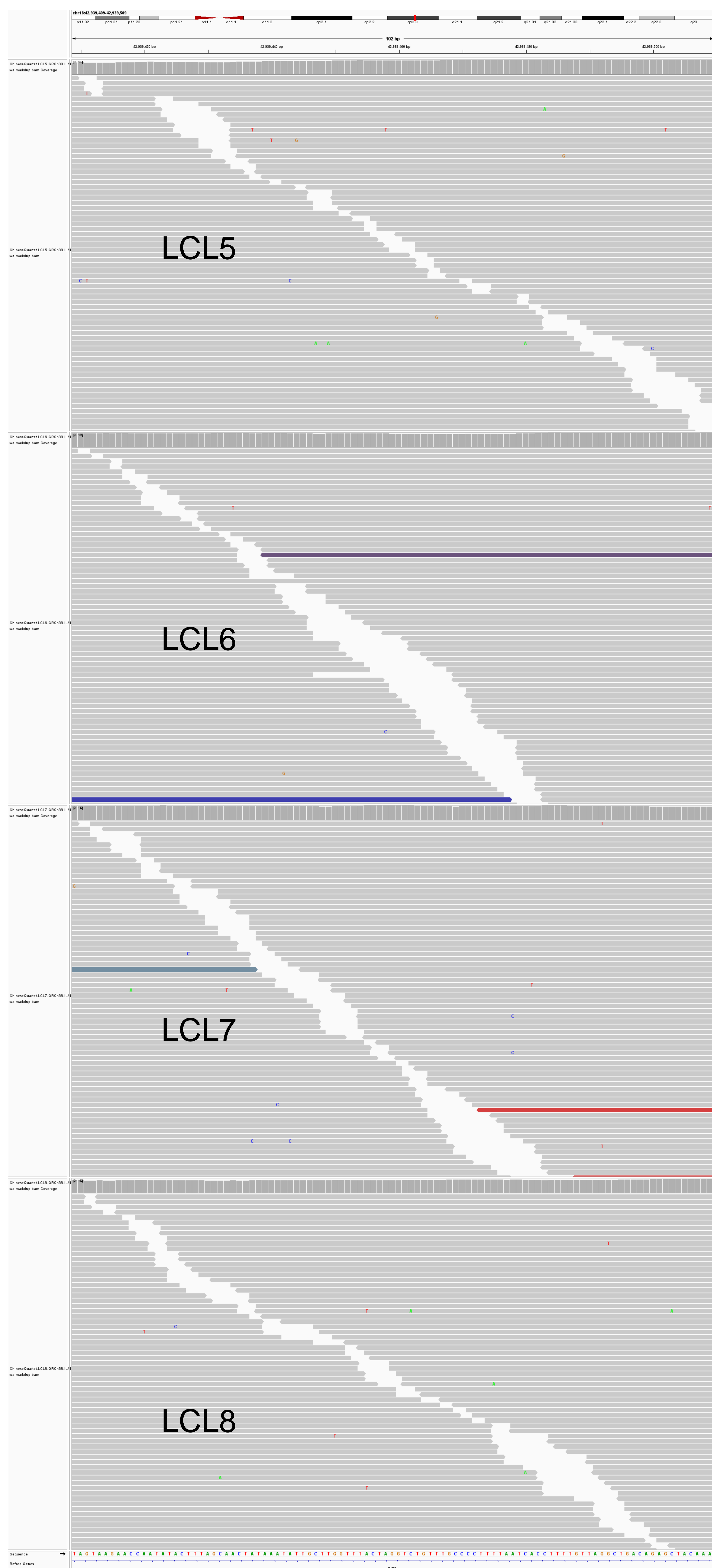


Illumina reads

# POS:chr18:42939459 Report Somatic mutation by HiFi



HiFi reads

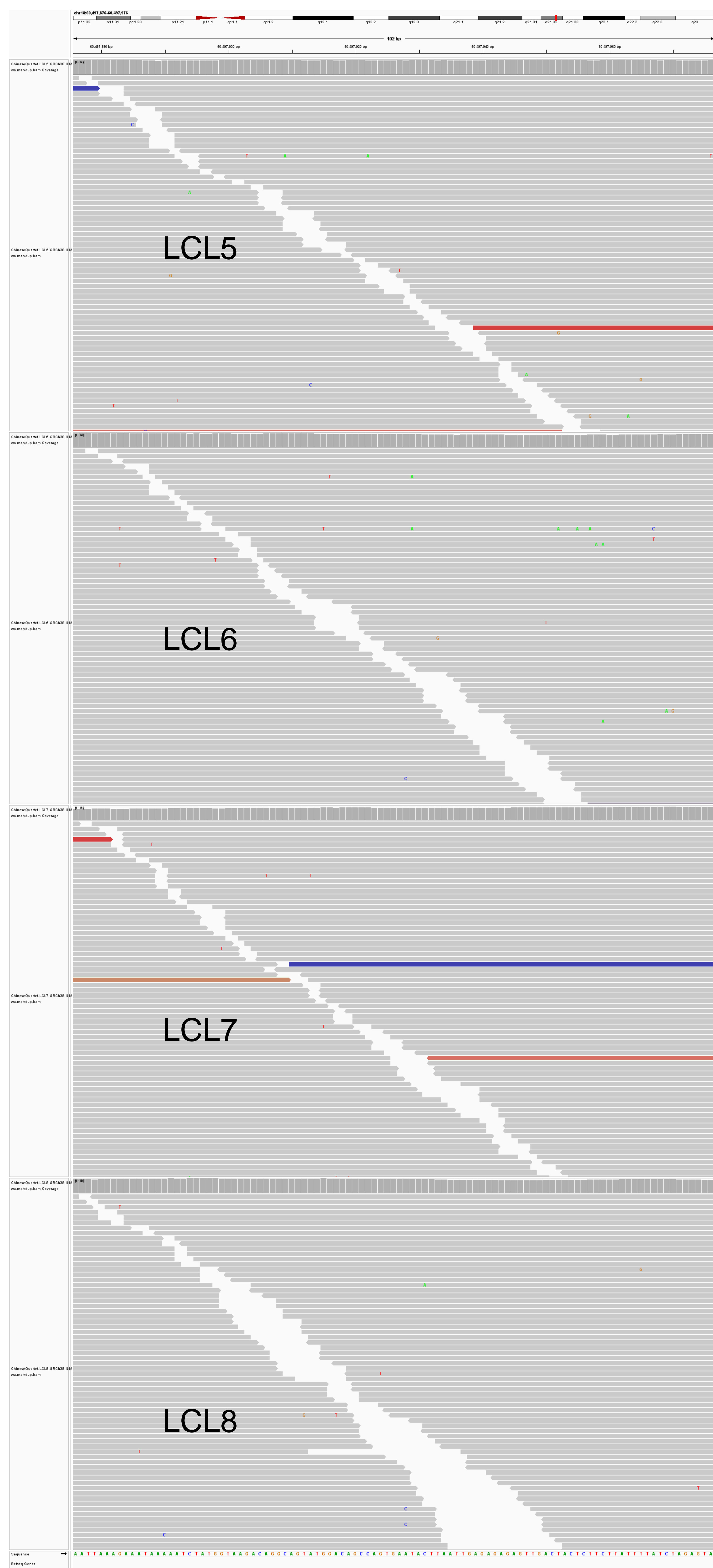


Illumina reads

# POS:chr18:60497926 Report Somatic mutation by HiFi

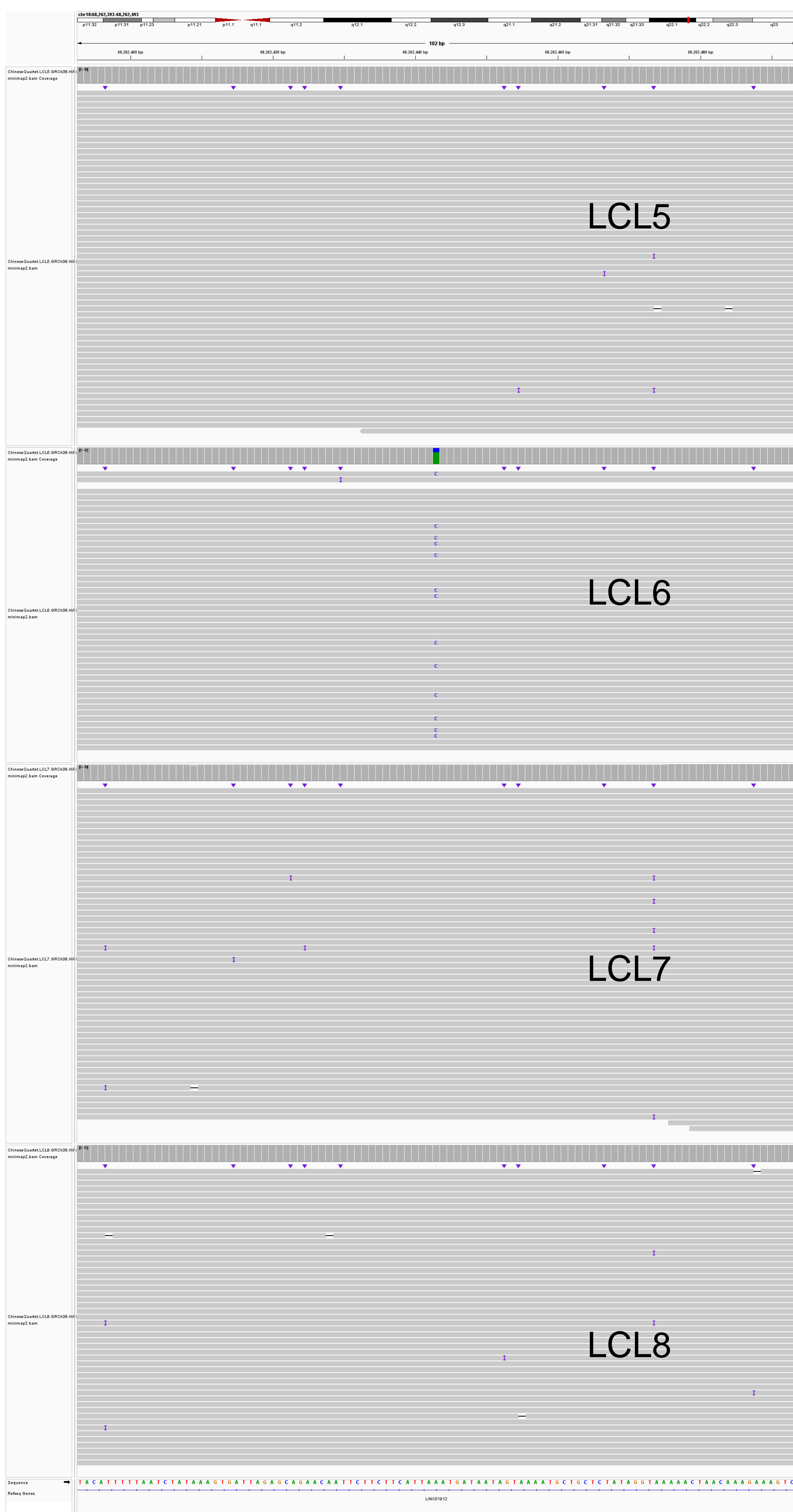


HiFi reads

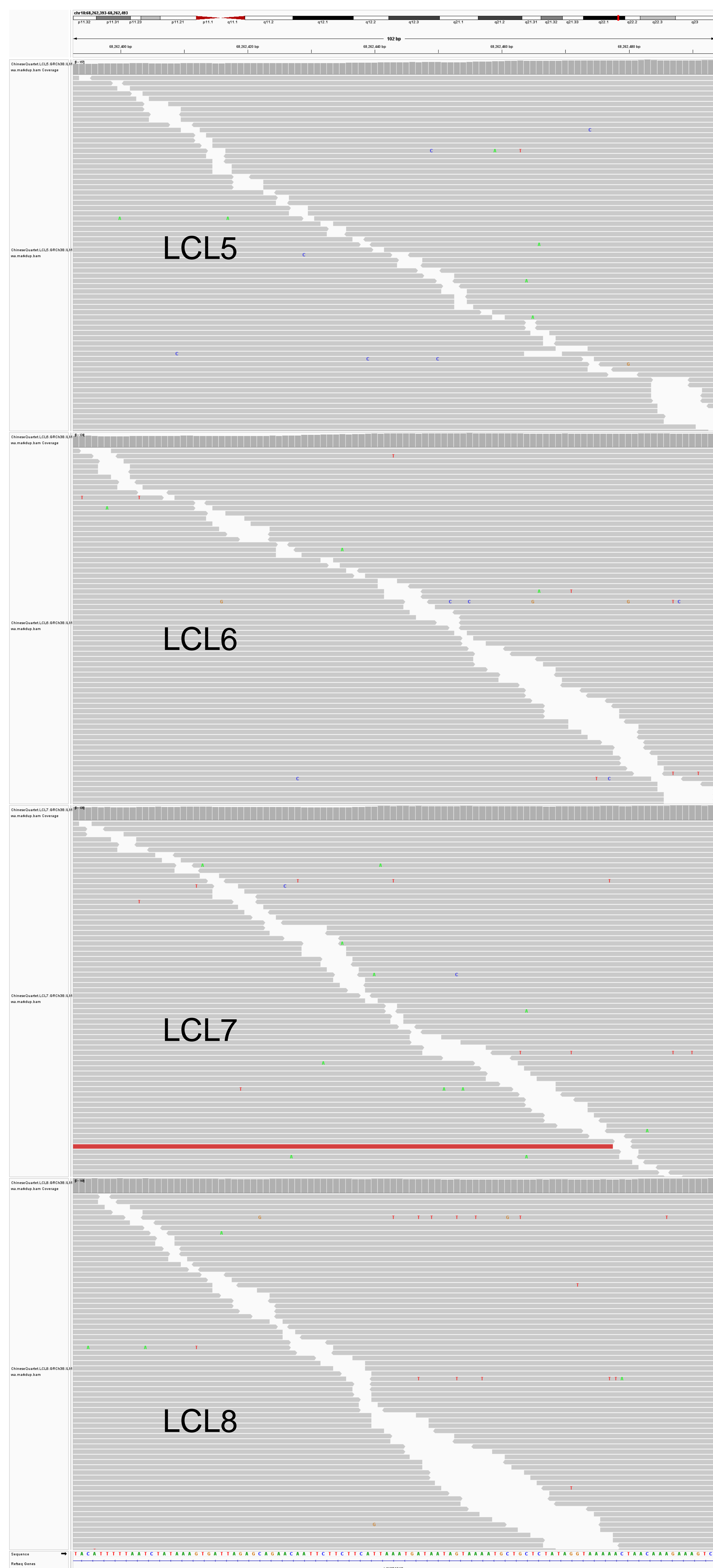


Illumina reads

# POS:chr18:68262443 Report Somatic mutation by HiFi



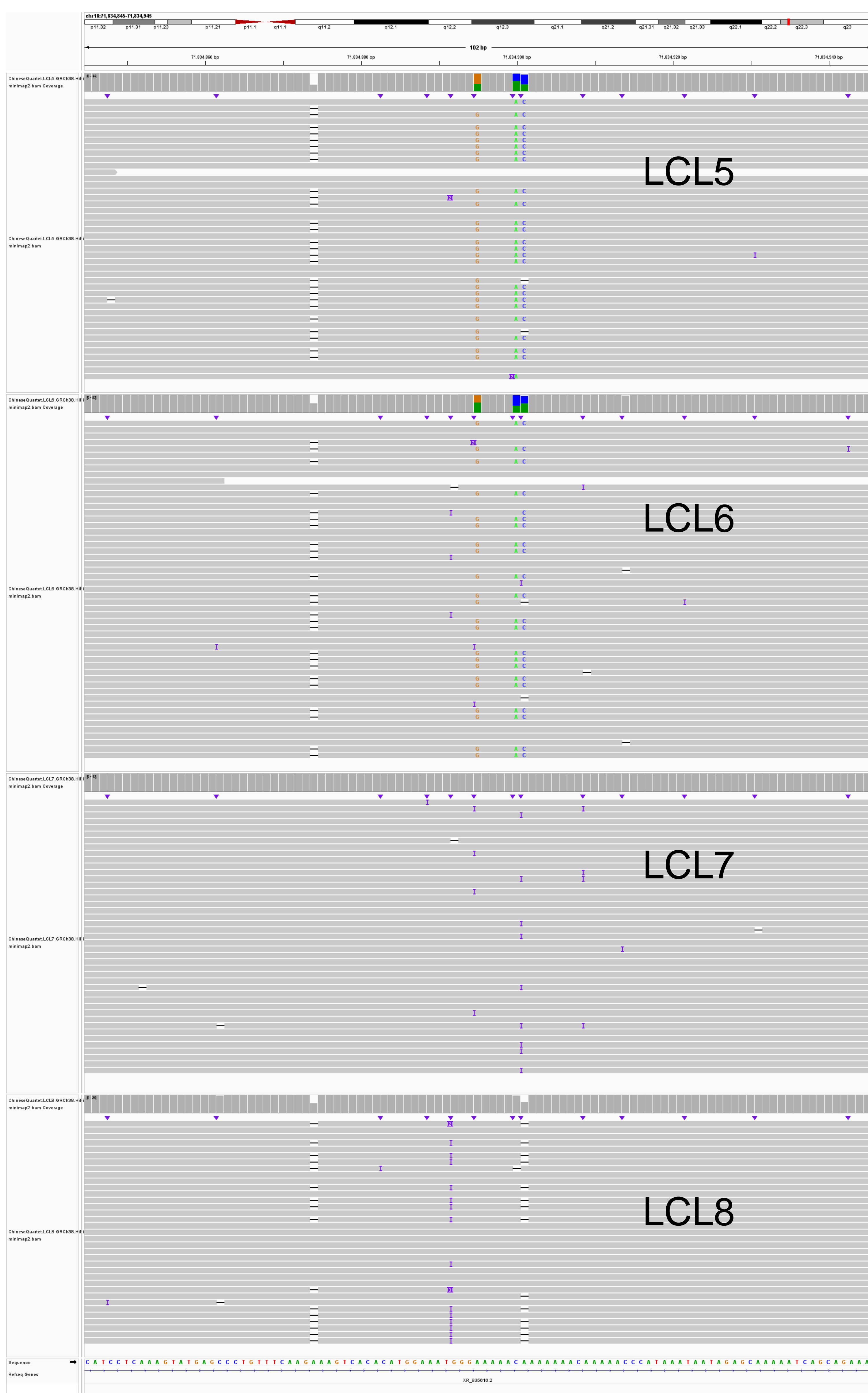
HiFi reads



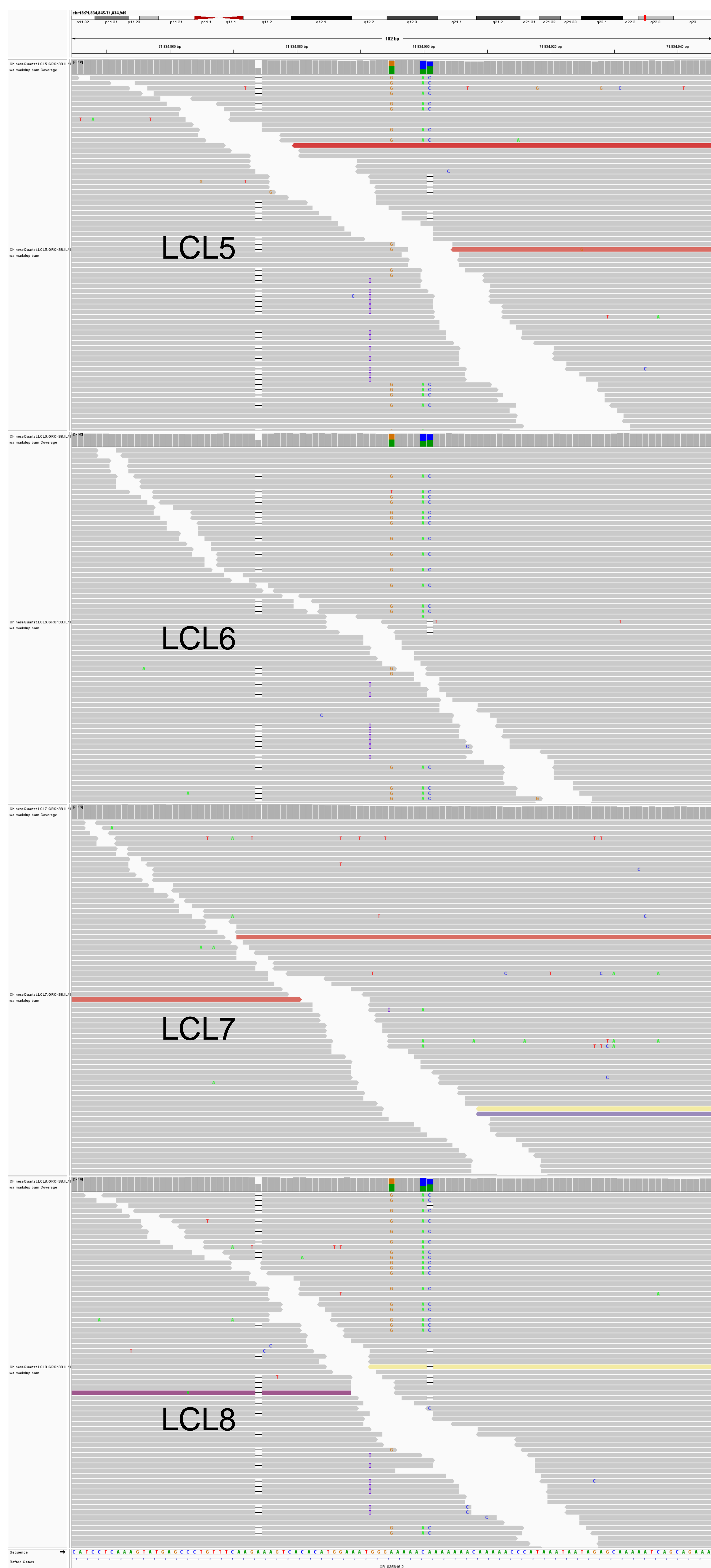
Illumina reads



# POS:chr18:71834895 Report Somatic mutation by ILM



HiFi reads

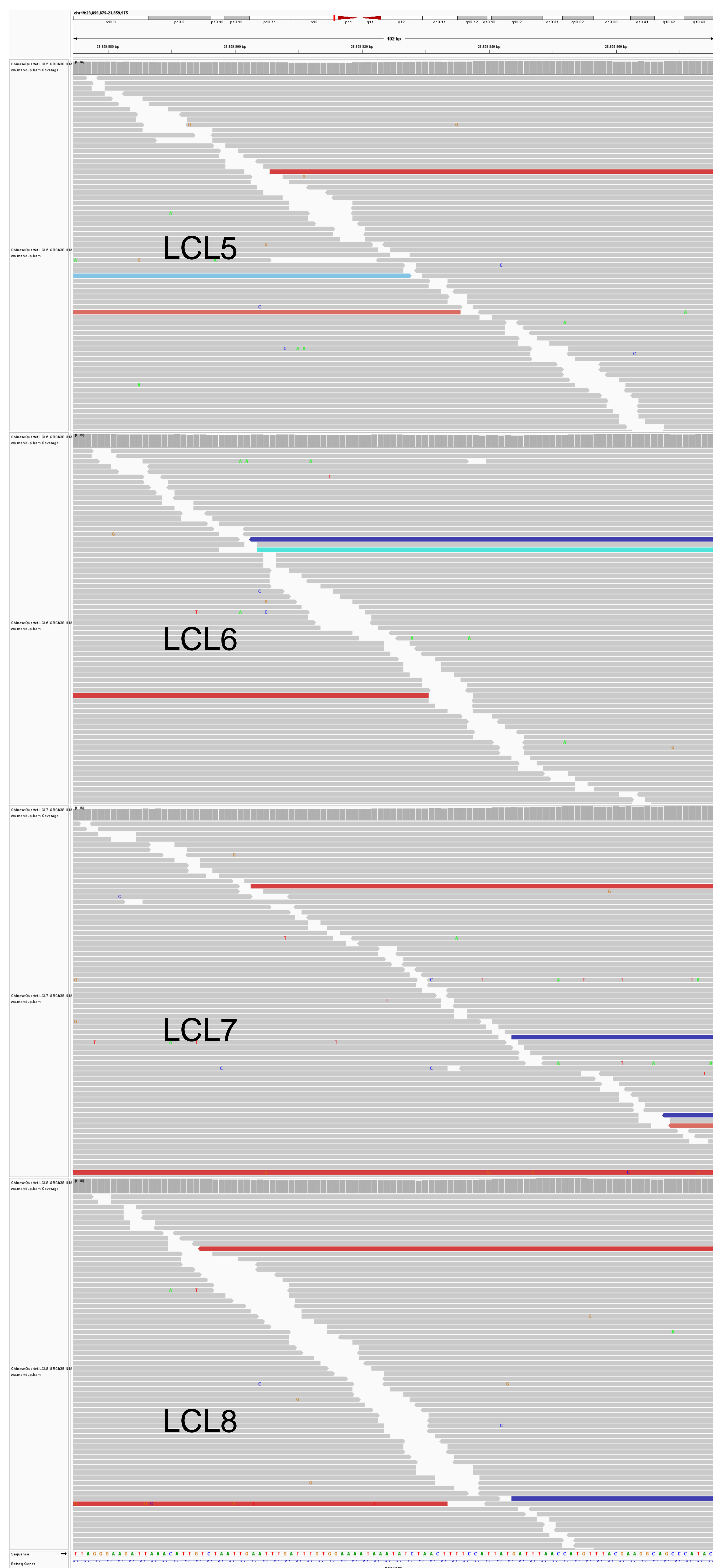


Illumina reads

# POS:chr19:23859925 Report Somatic mutation by HiFi

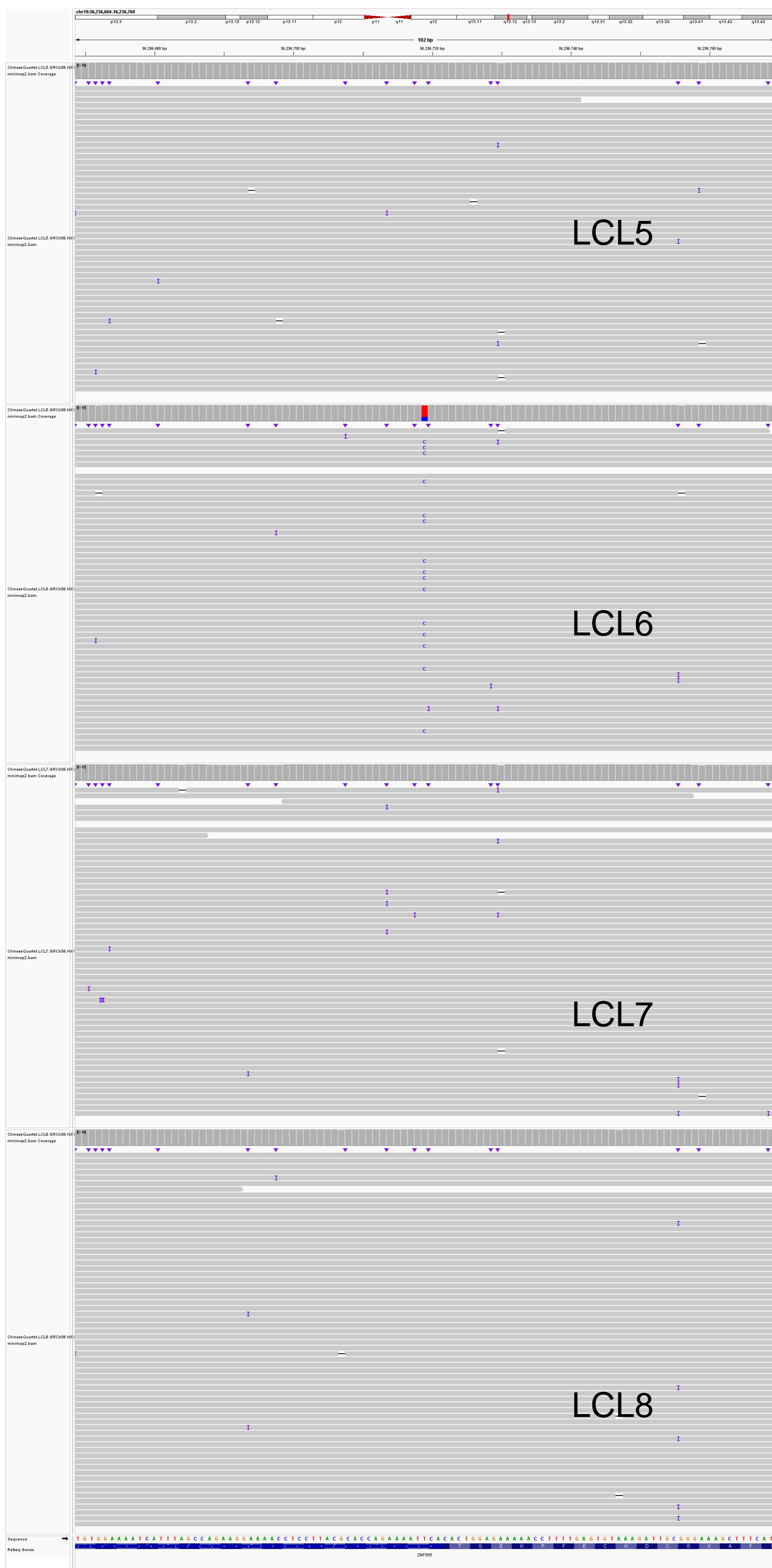


HiFi reads

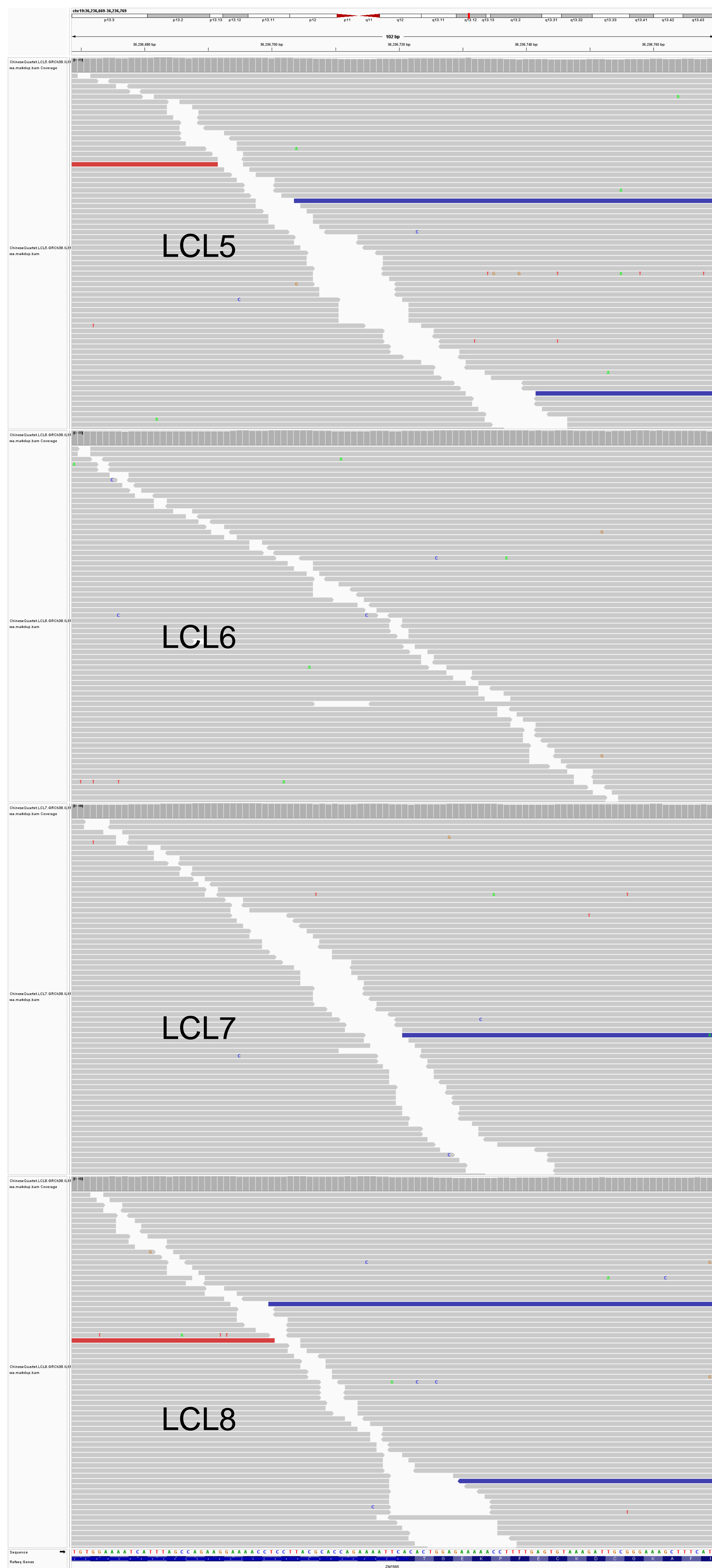


Illumina reads

# POS:chr19:36236719 Report Somatic mutation by HiFi

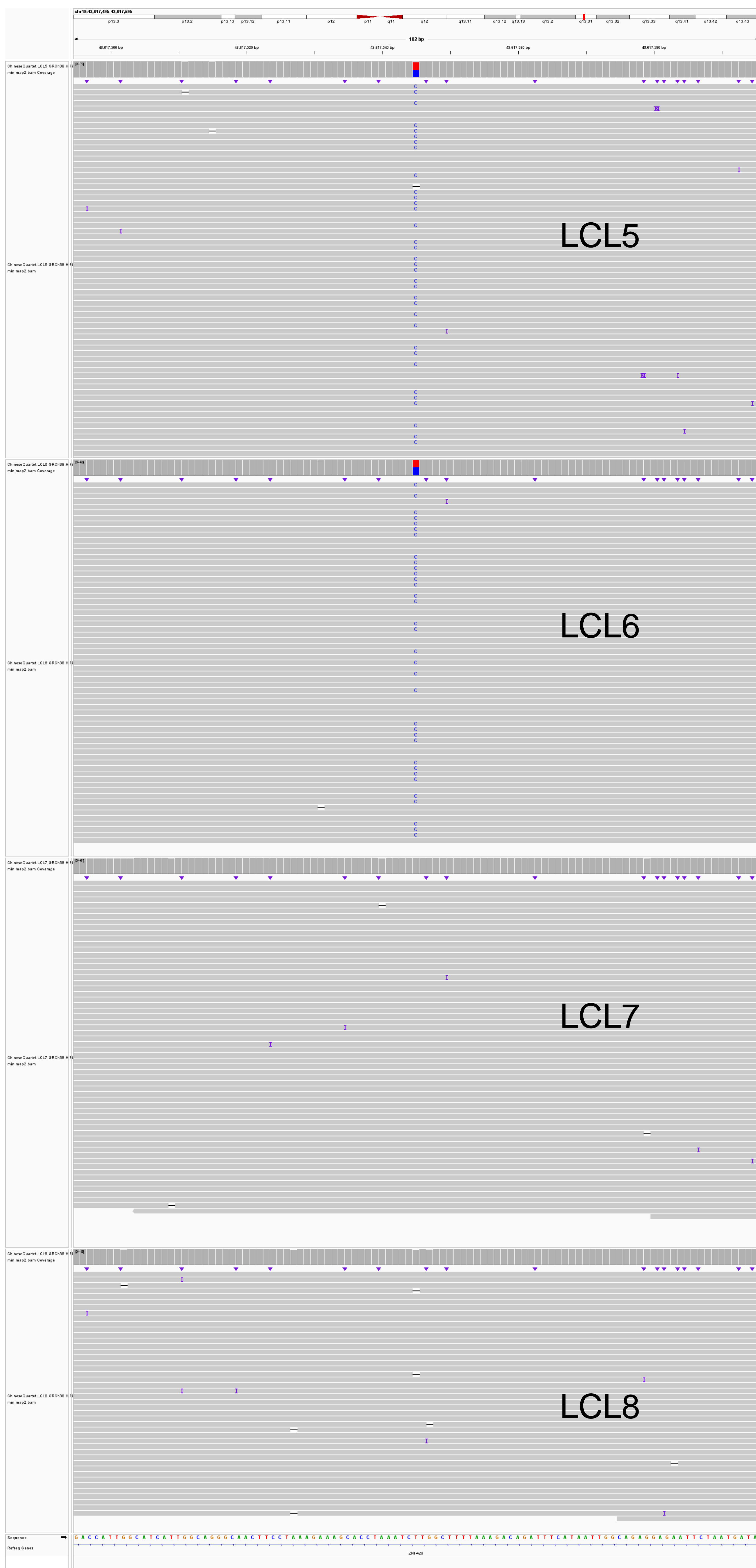


HiFi reads

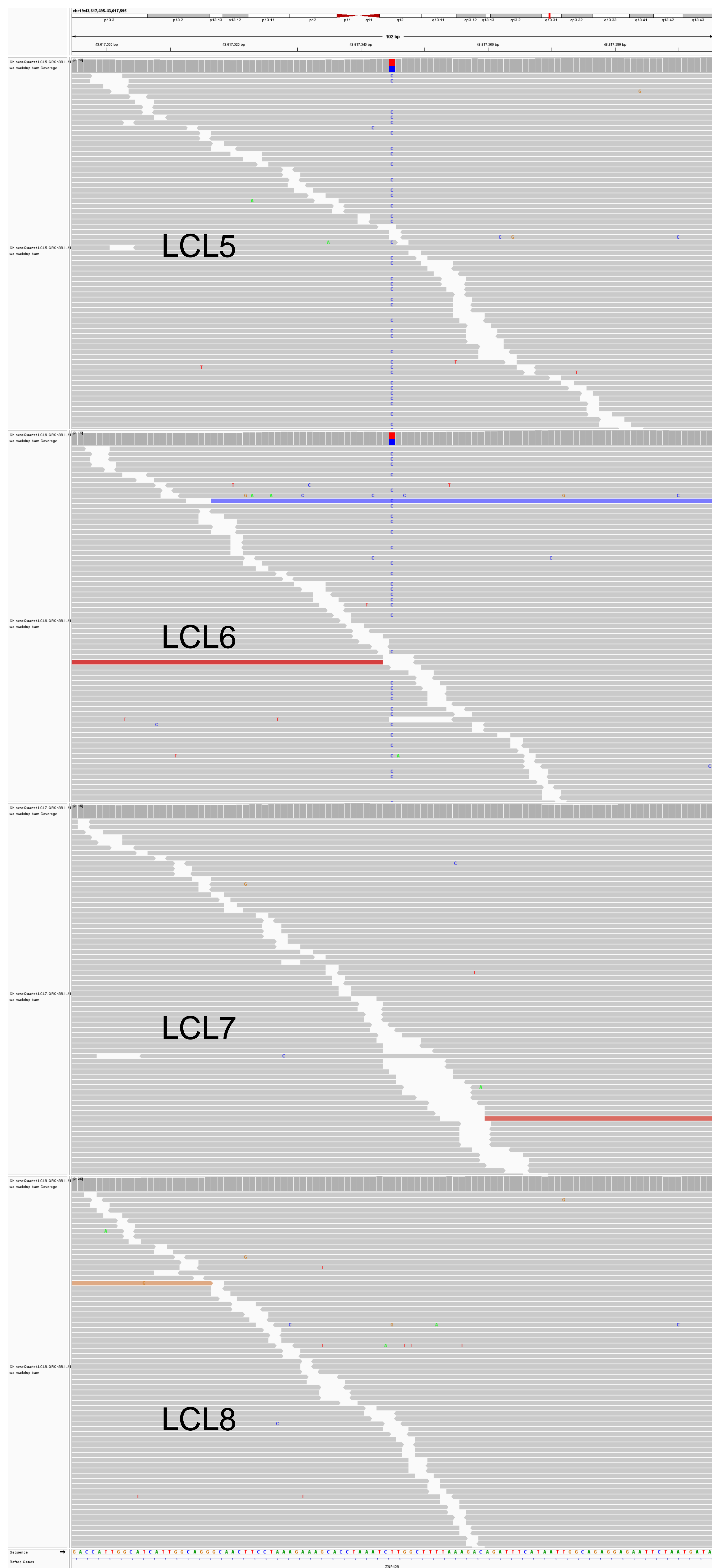


Illumina reads

# POS:chr19:43617545 Report DeNovo mutation by ILM



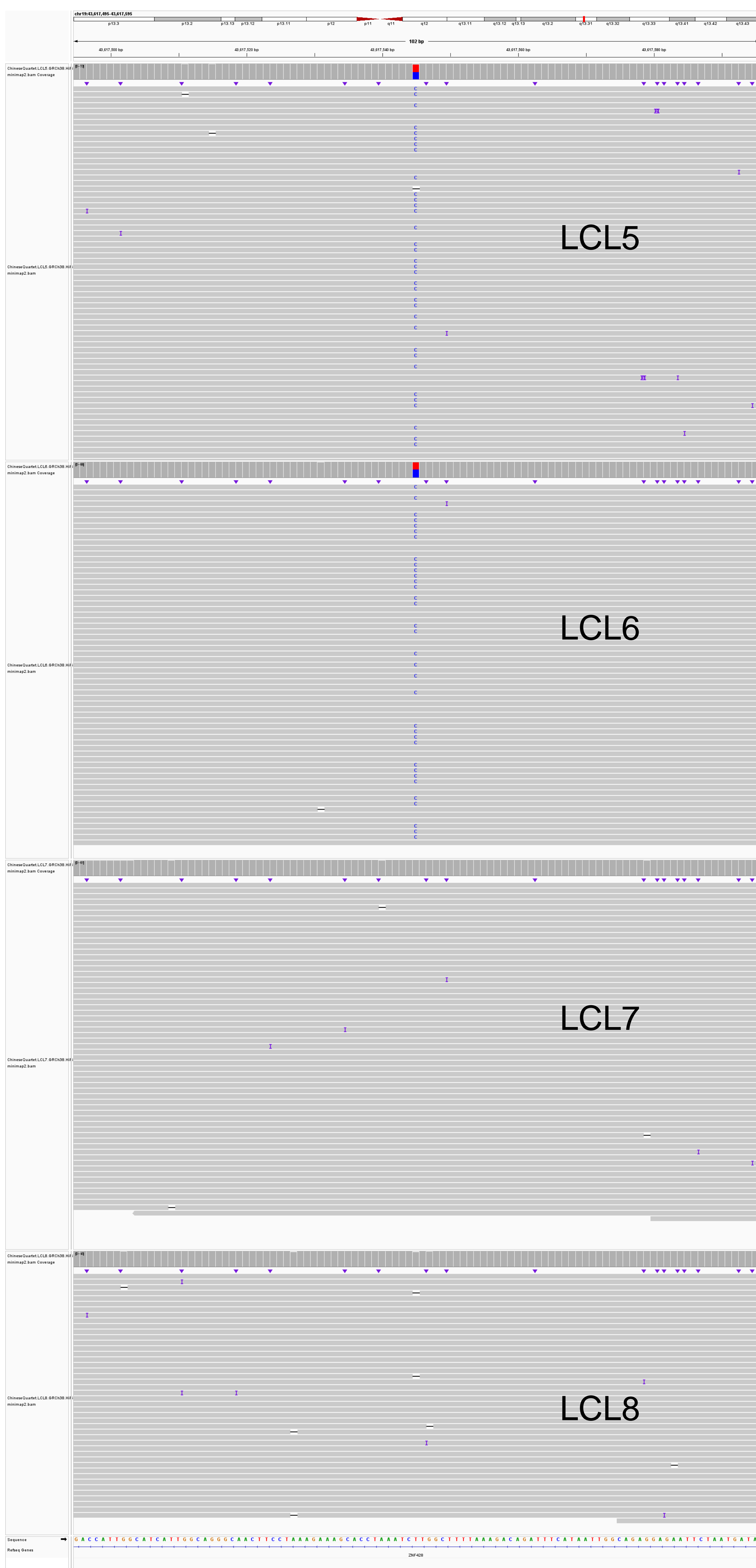
HiFi reads



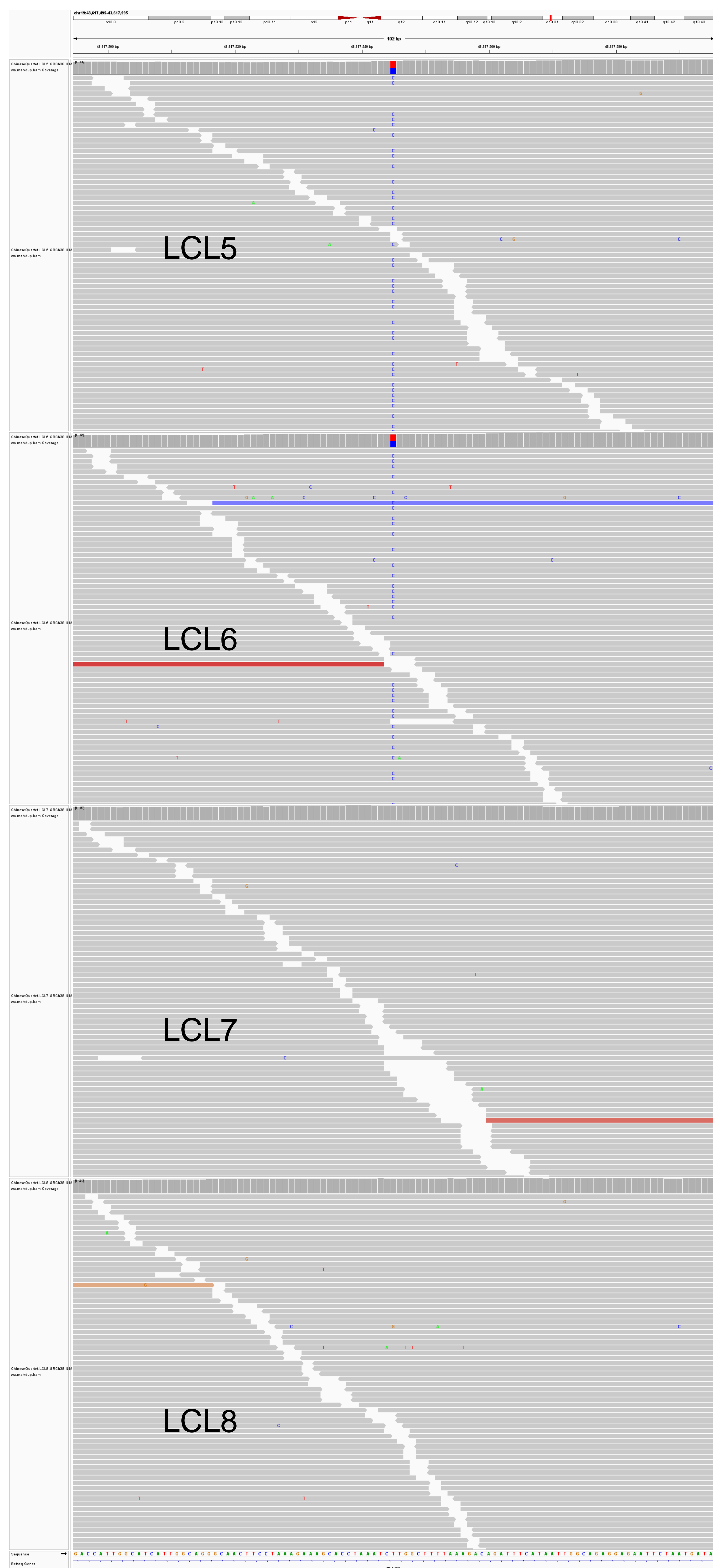
Illumina reads



# POS:chr19:43617545 Report DeNovo mutation by HiFi

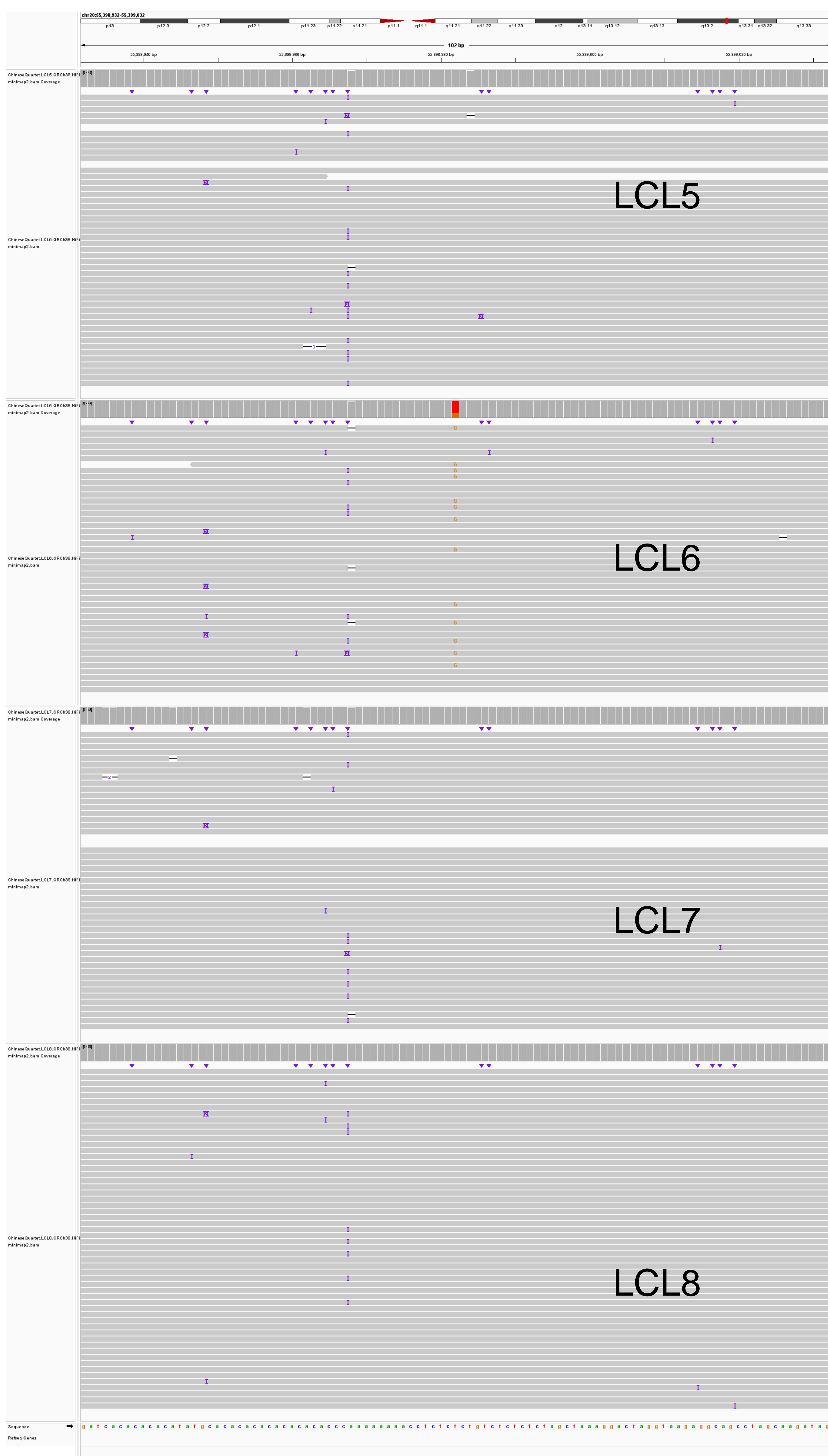


HiFi reads

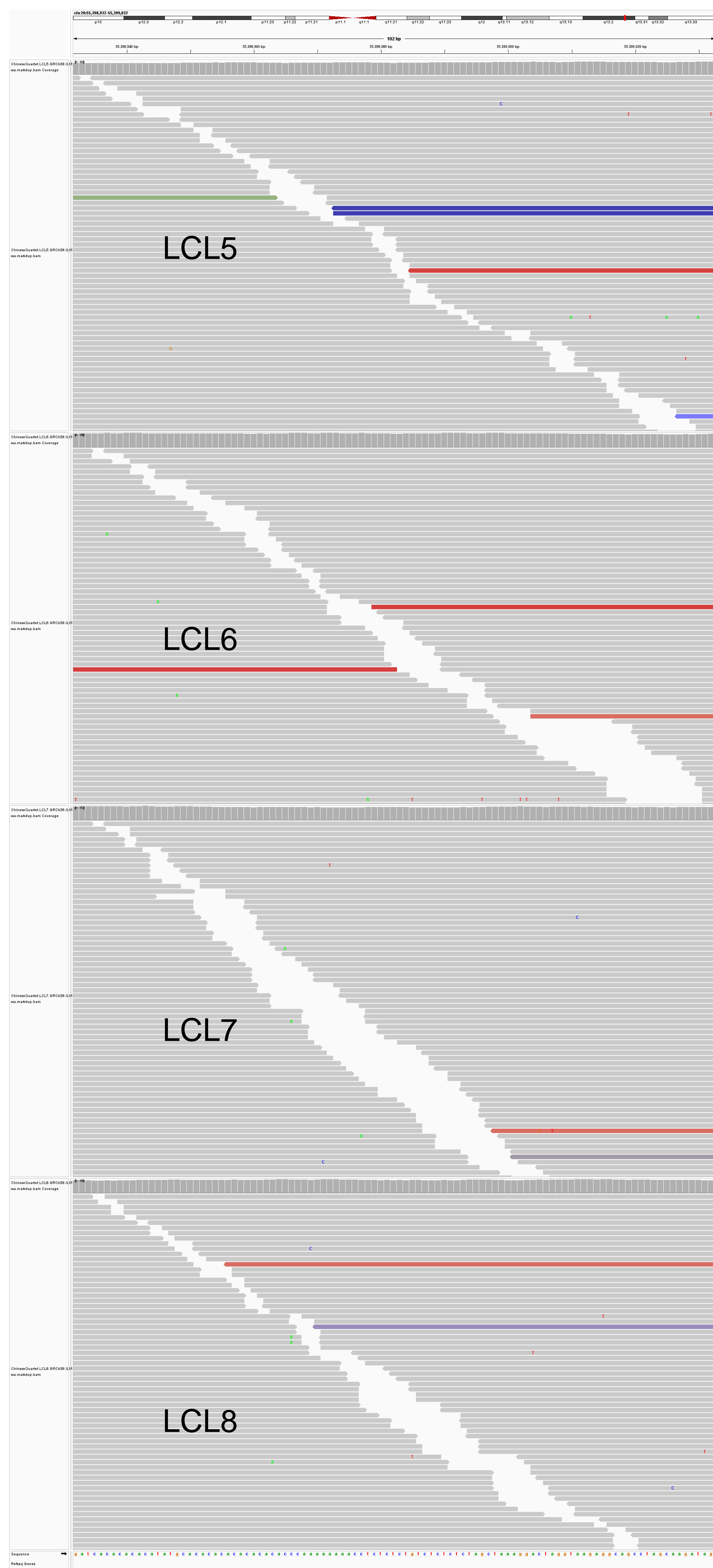


Illumina reads

# POS:chr20:55398982 Report Somatic mutation by HiFi

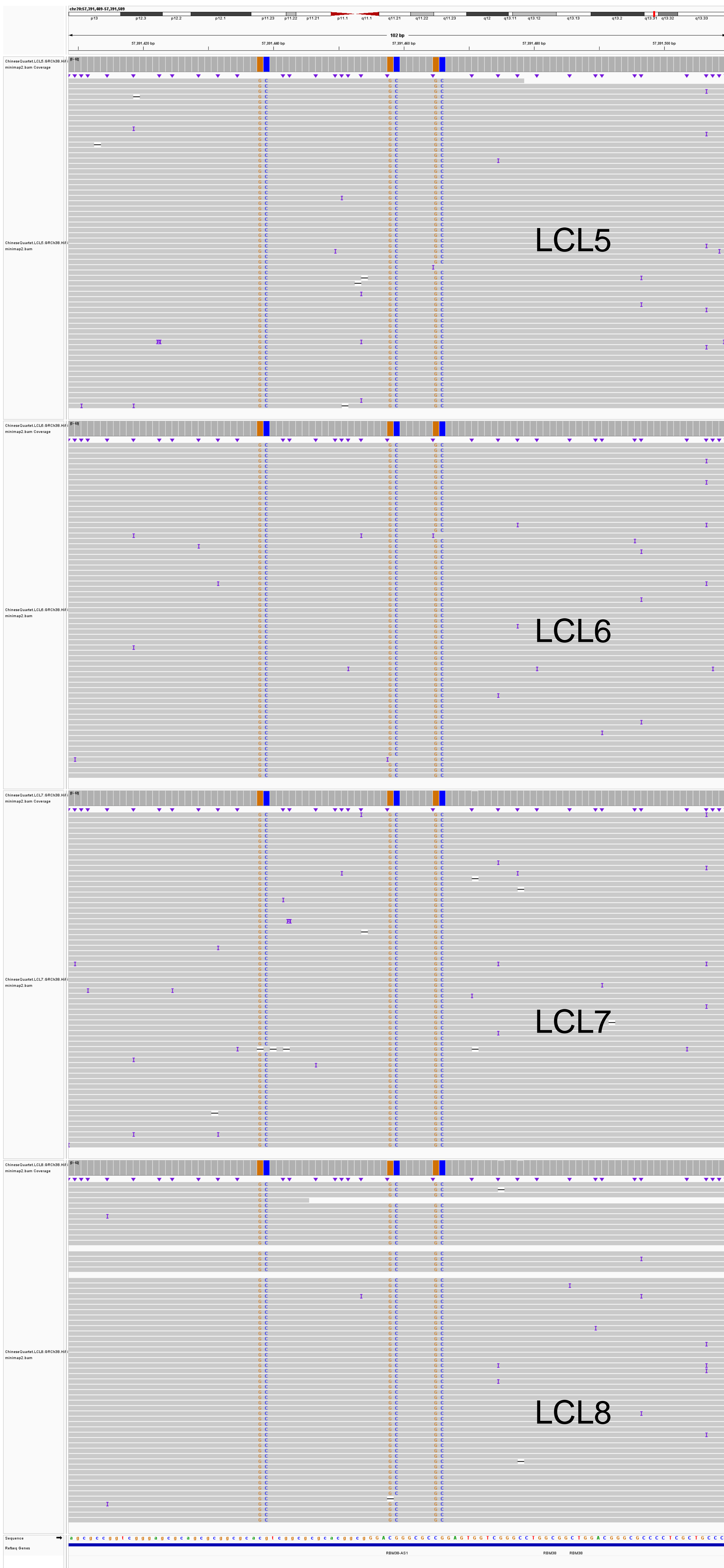


HiFi reads

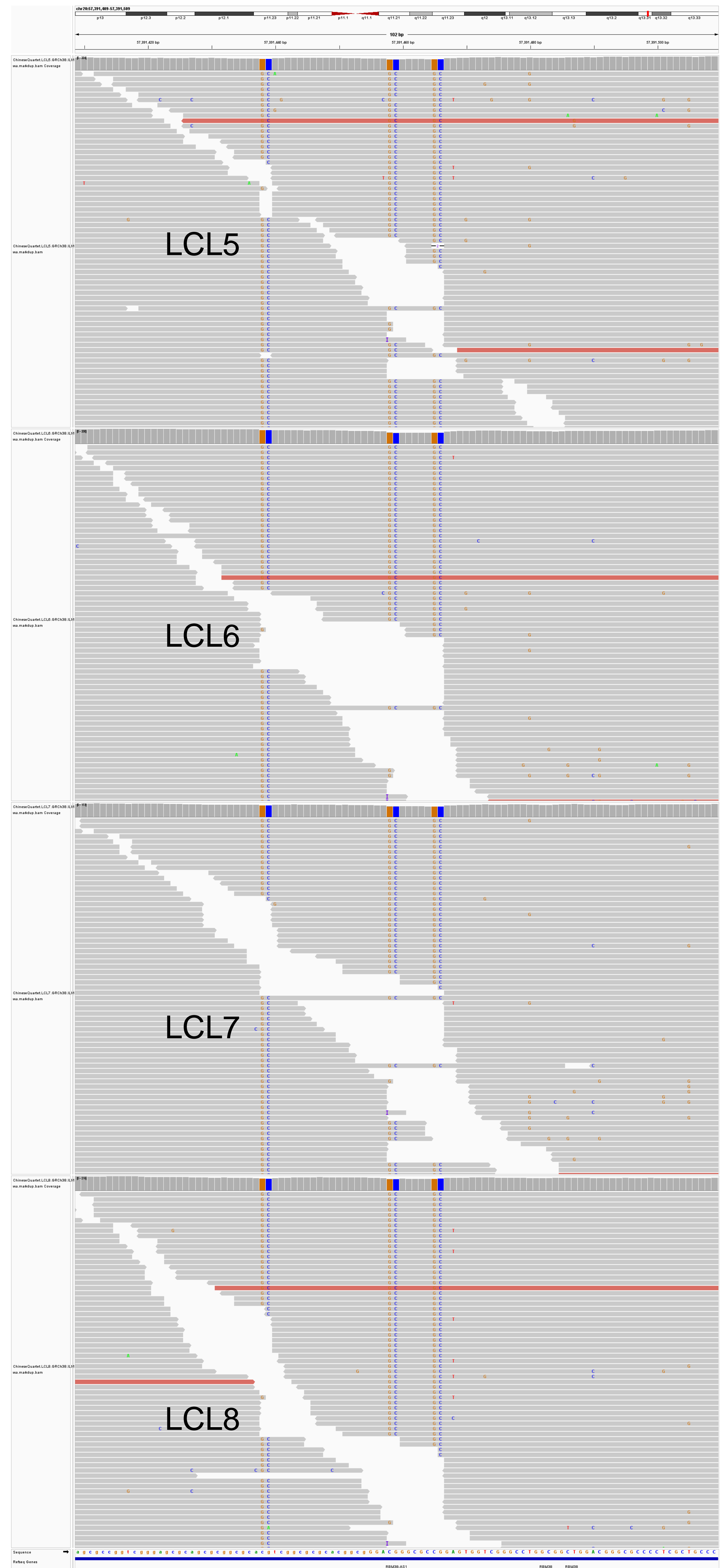


Illumina reads

# POS:chr20:57391459 Report Somatic mutation by ILM



HiFi reads



Illumina reads



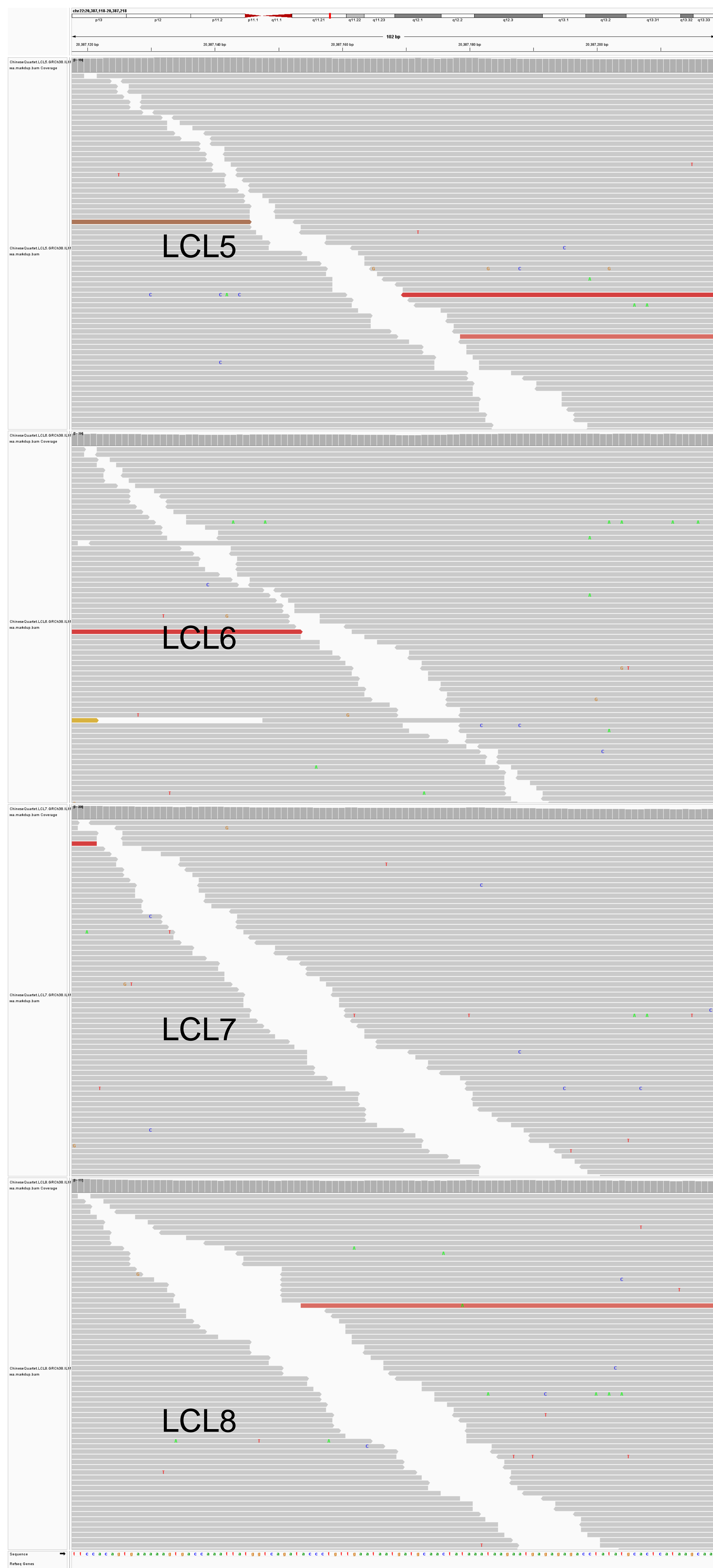




# POS:chr22:20387168 Report Somatic mutation by HiFi

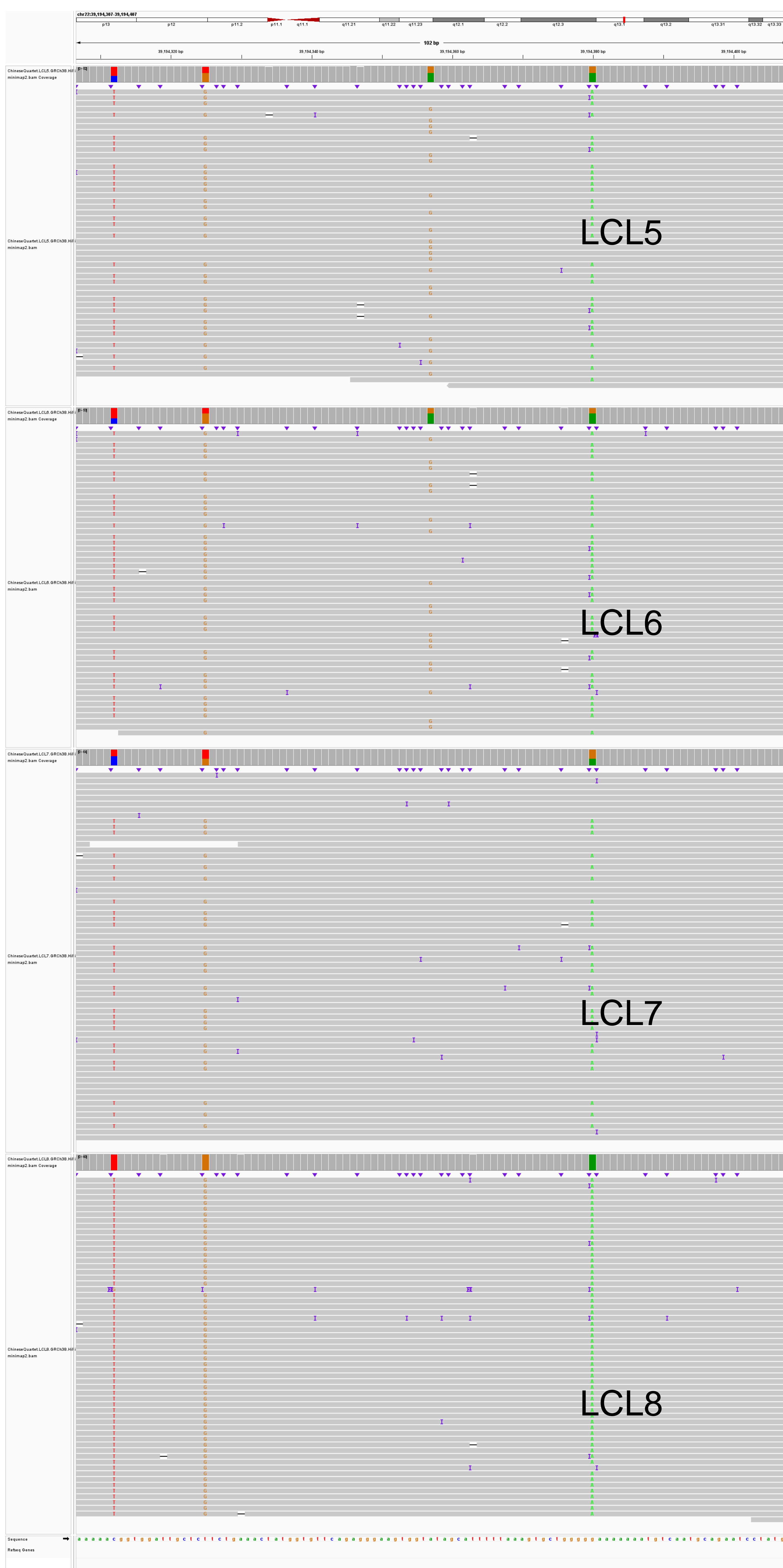


HiFi reads

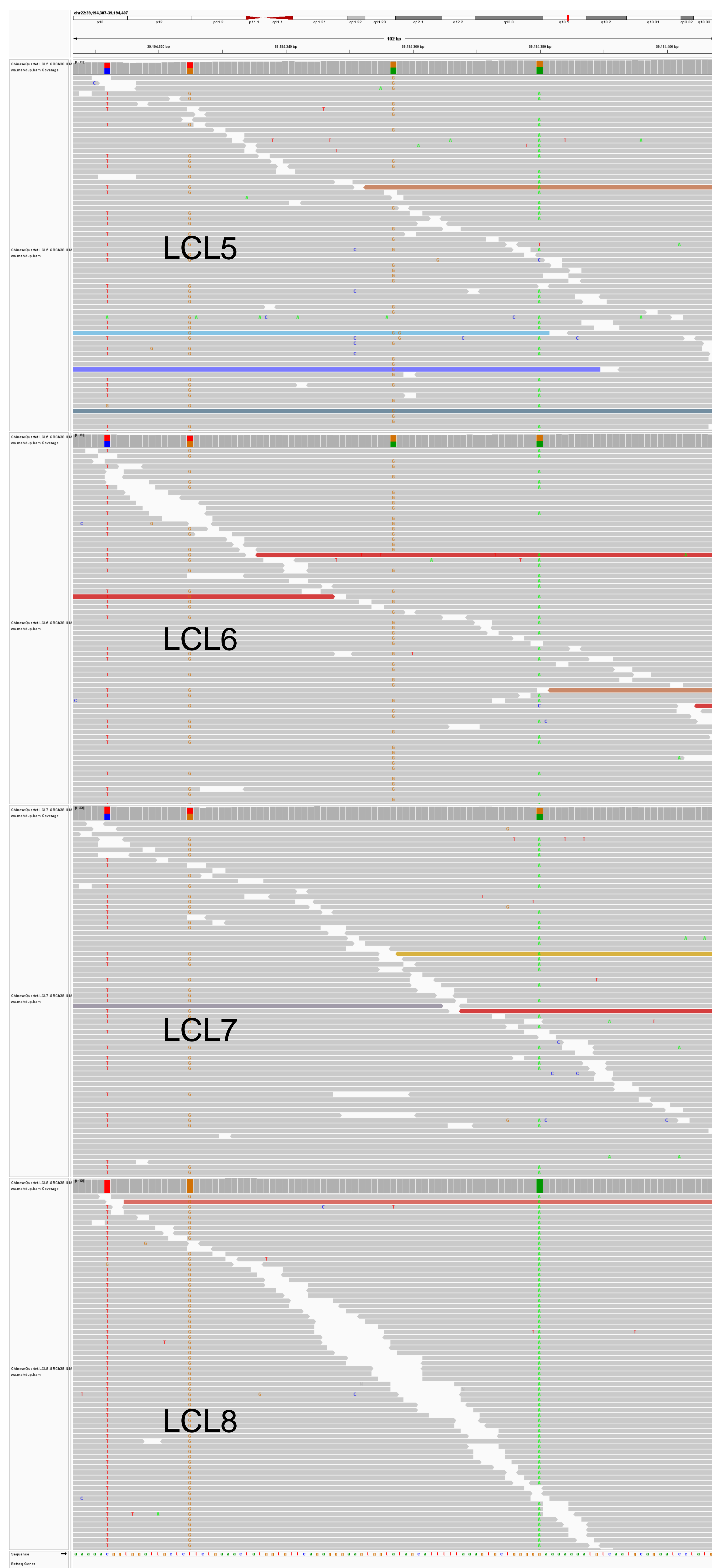


Illumina reads

# POS:chr22:39194357 Report DeNovo mutation by ILM

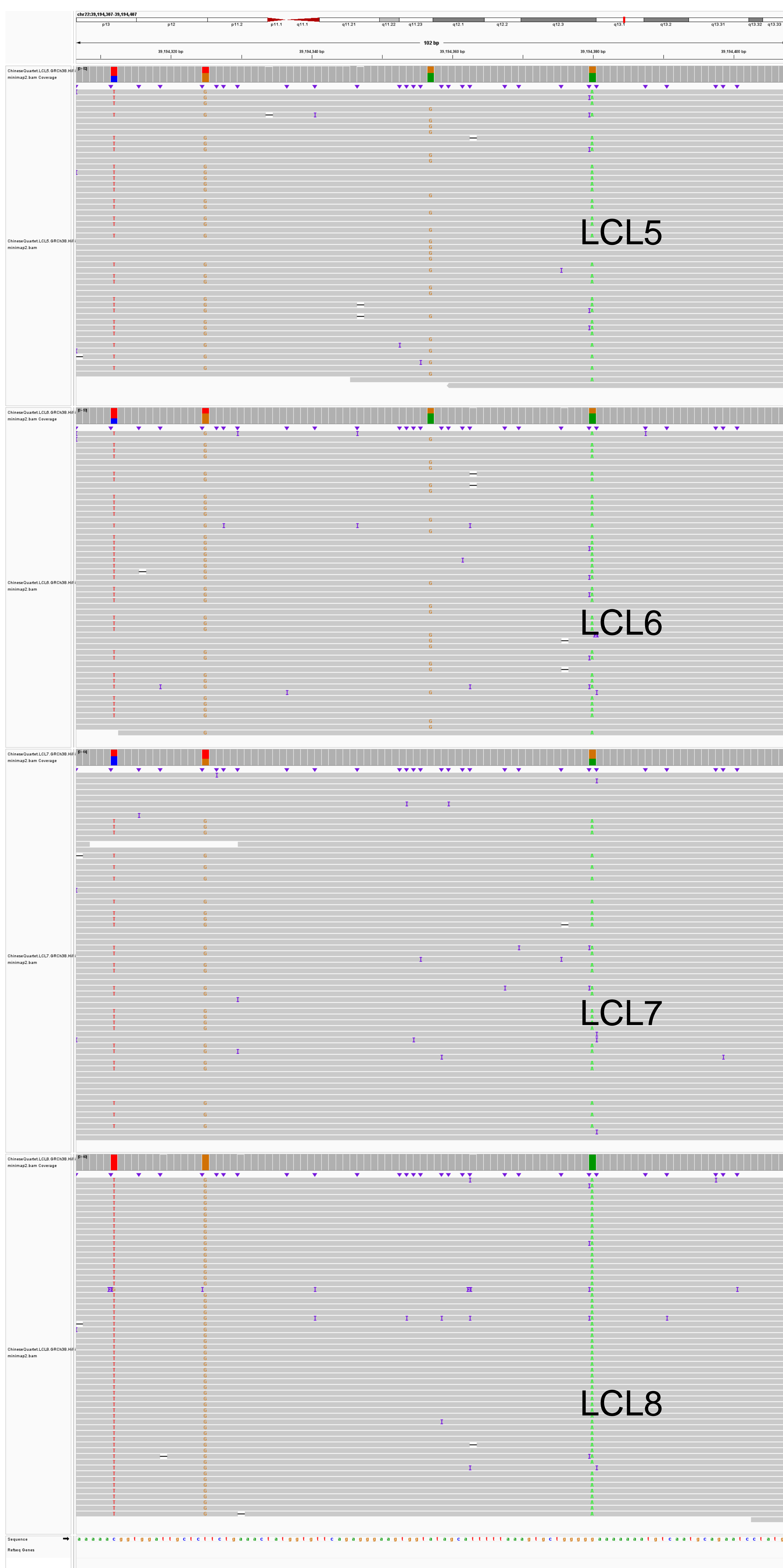


HiFi reads

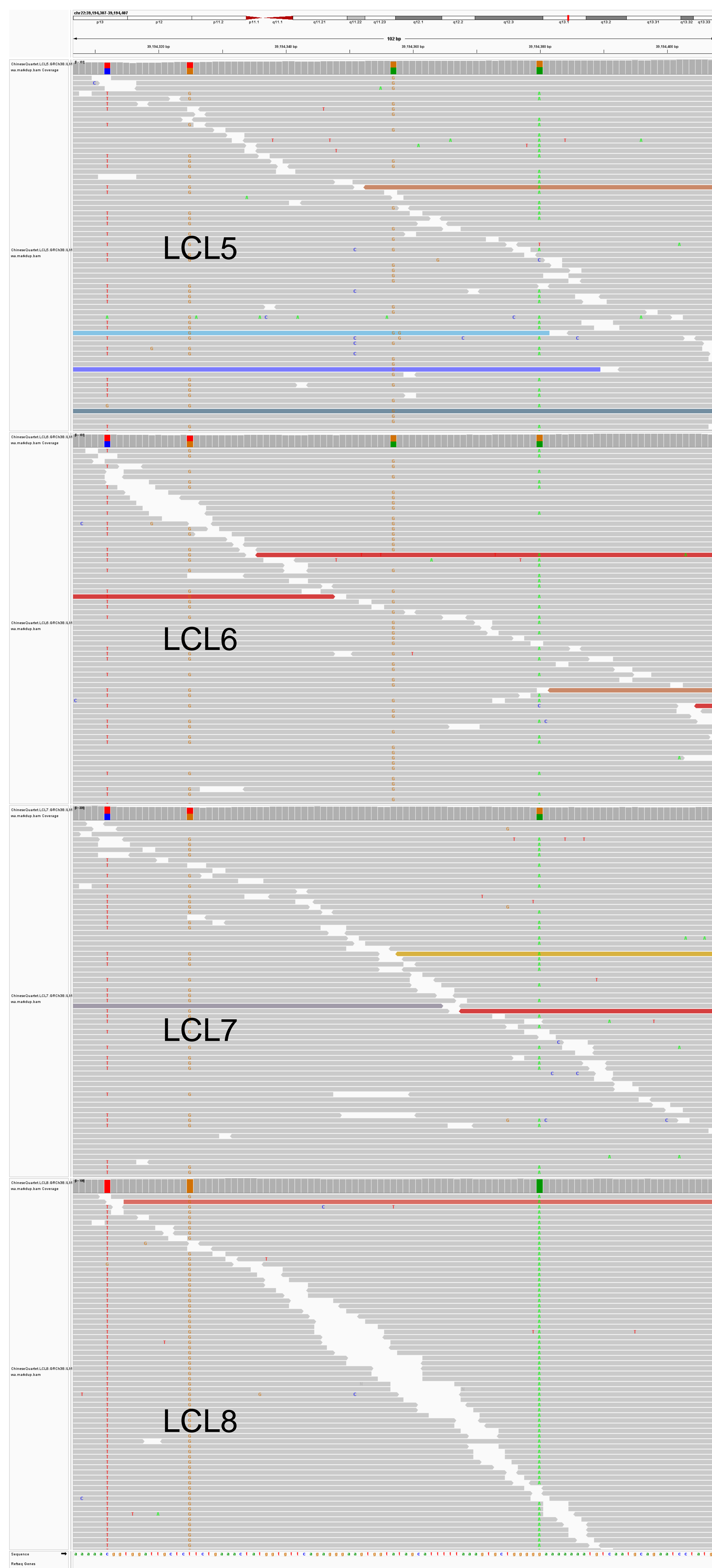


Illumina reads

# POS:chr22:39194357 Report DeNovo mutation by HiFi



HiFi reads



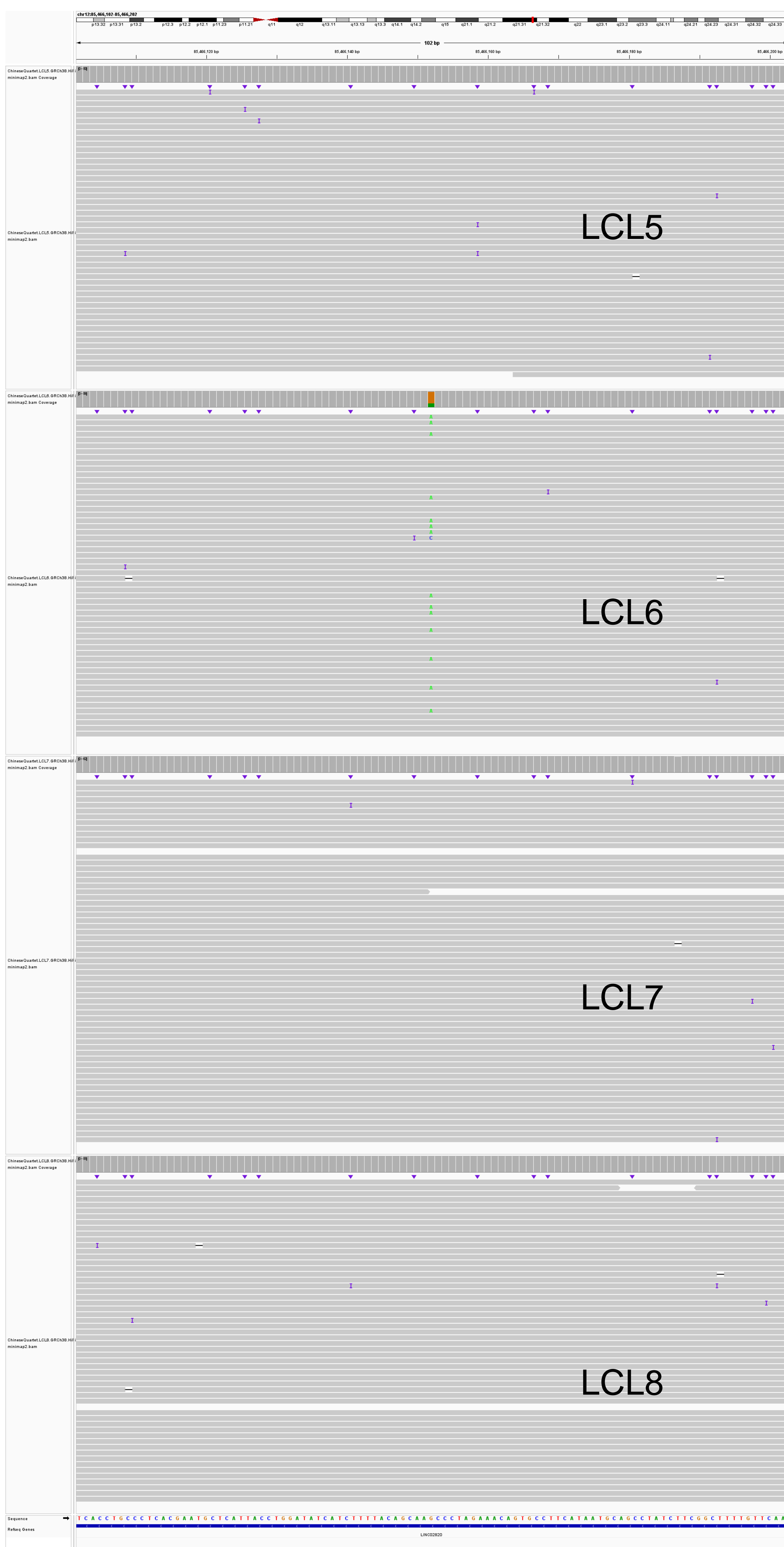
Illumina reads



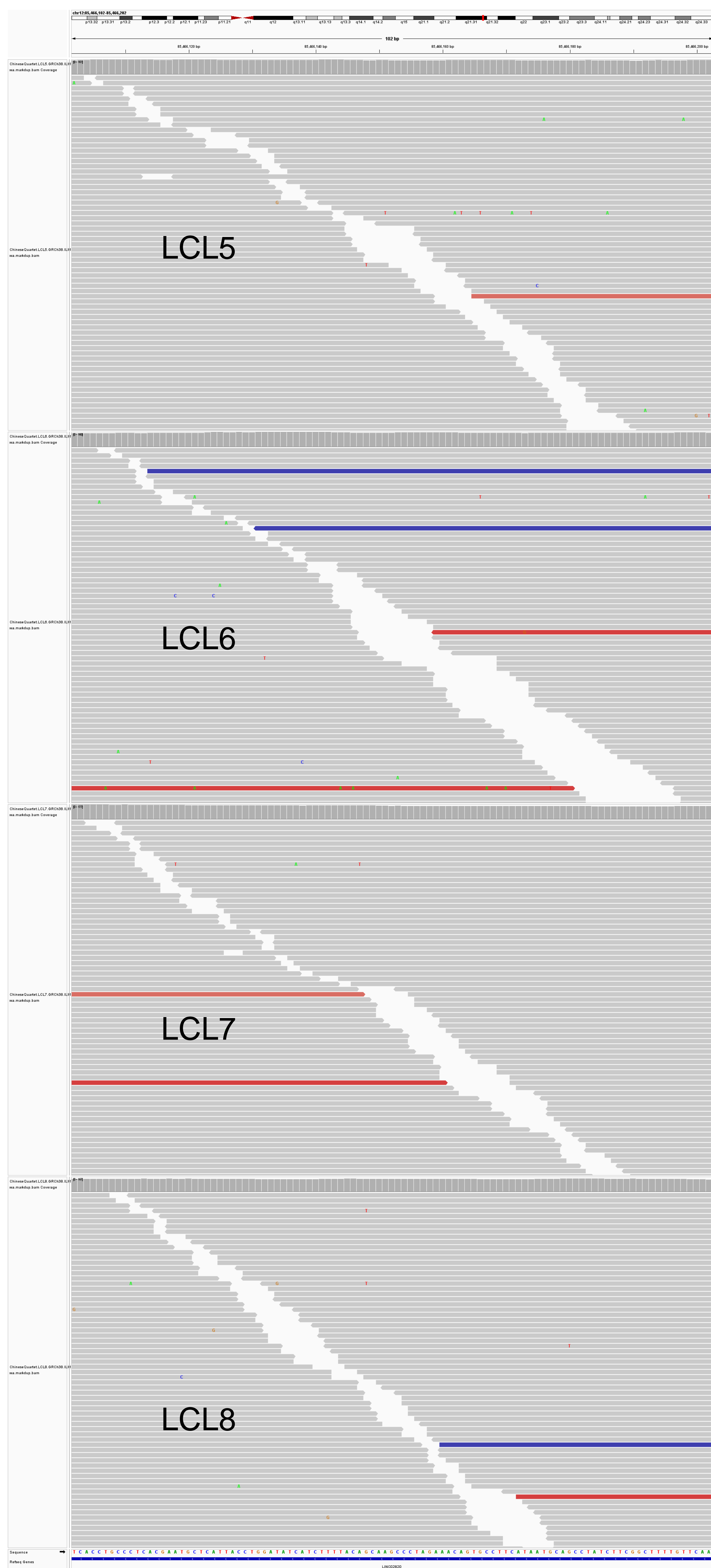




# POS:chr12:85466152 Report Somatic mutation by HiFi



HiFi reads

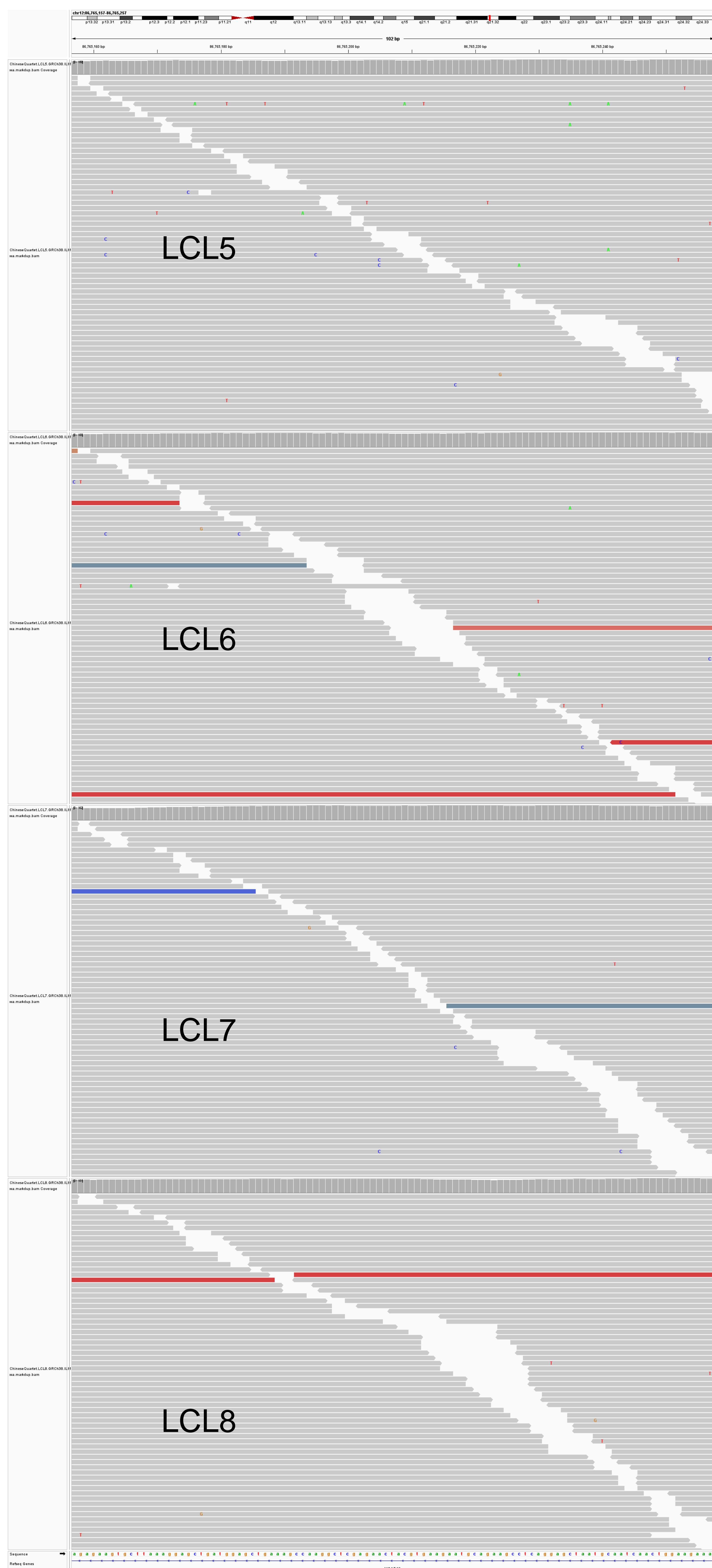


Illumina reads

# POS:chr12:86765207 Report Somatic mutation by HiFi

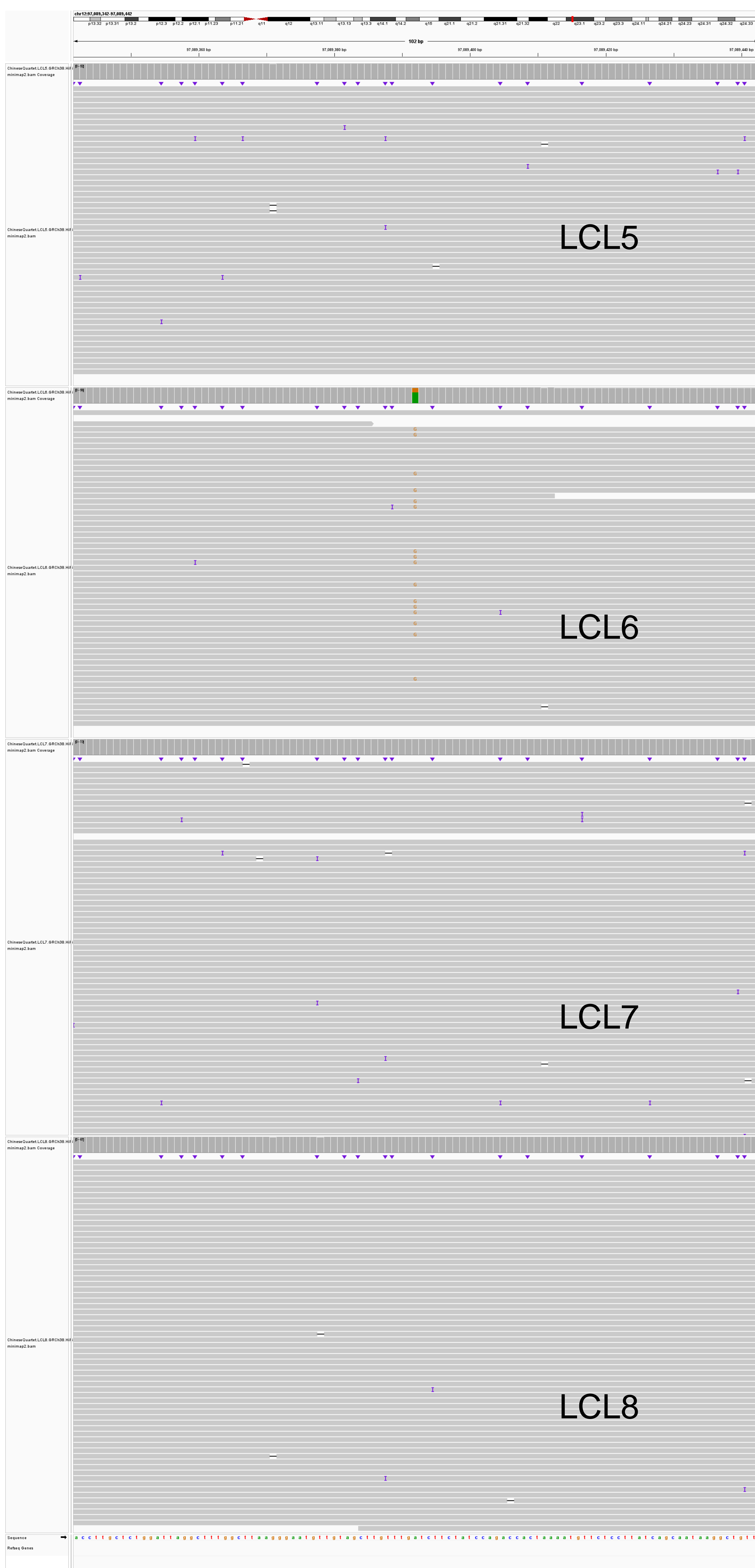


HiFi reads

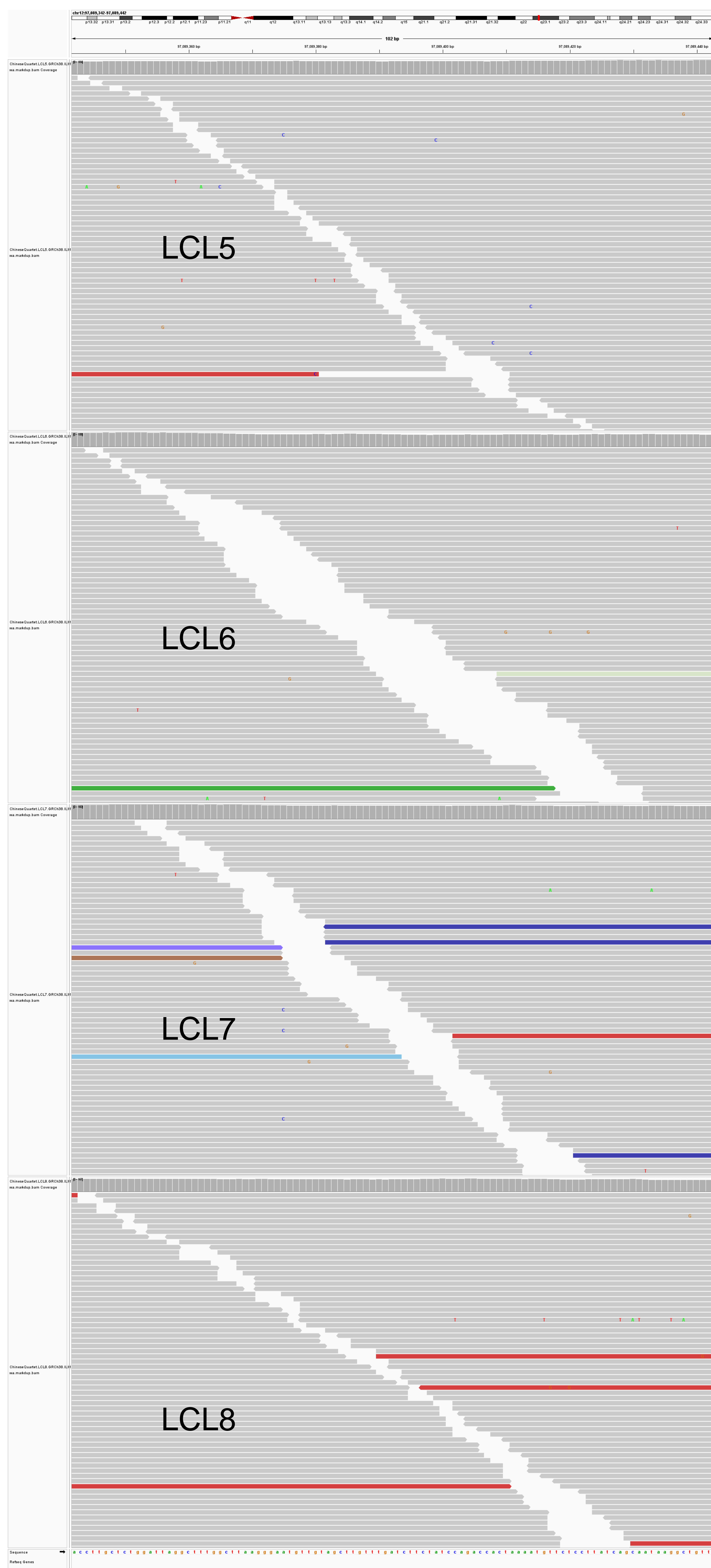


Illumina reads

# POS:chr12:97089392 Report Somatic mutation by HiFi



HiFi reads

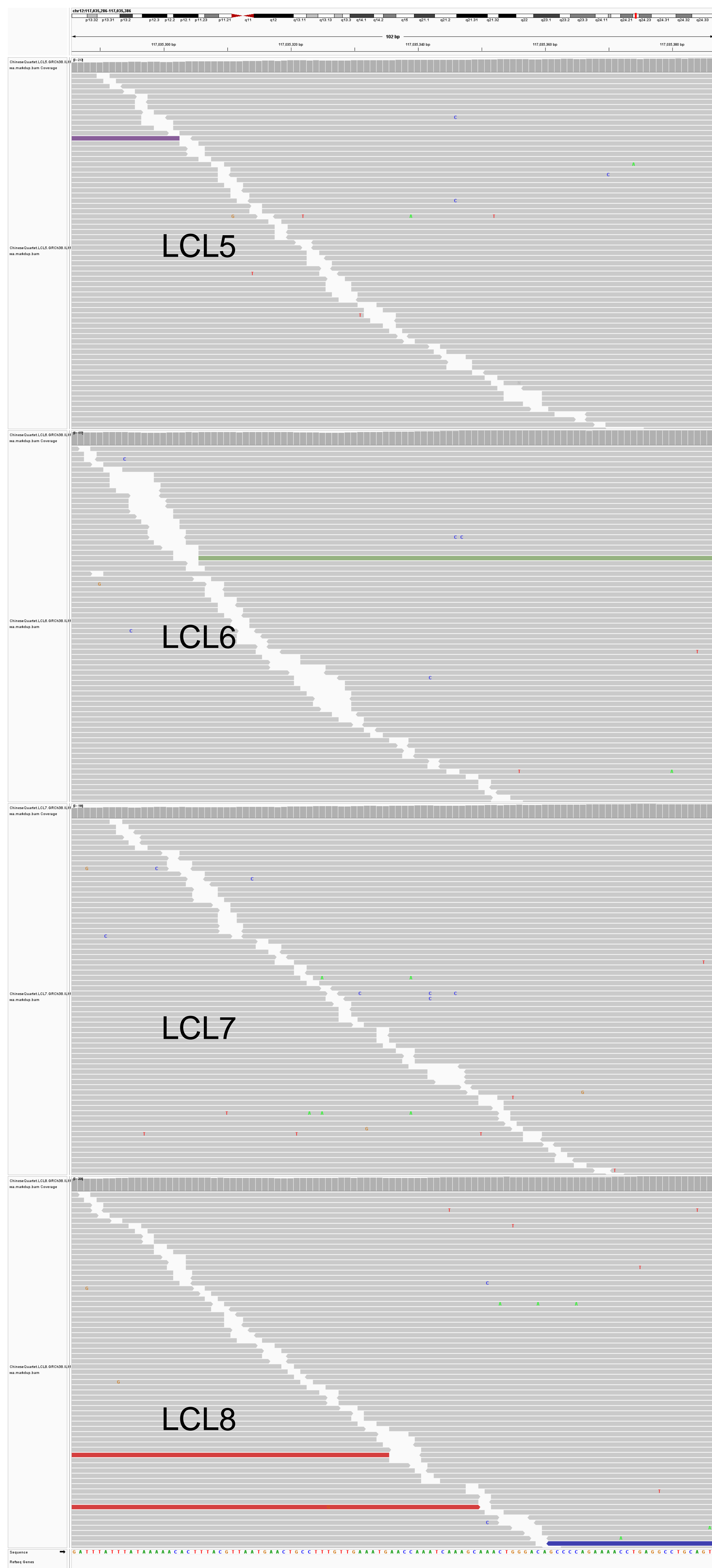


Illumina reads

# POS:chr12:117035336 Report Somatic mutation by HiFi



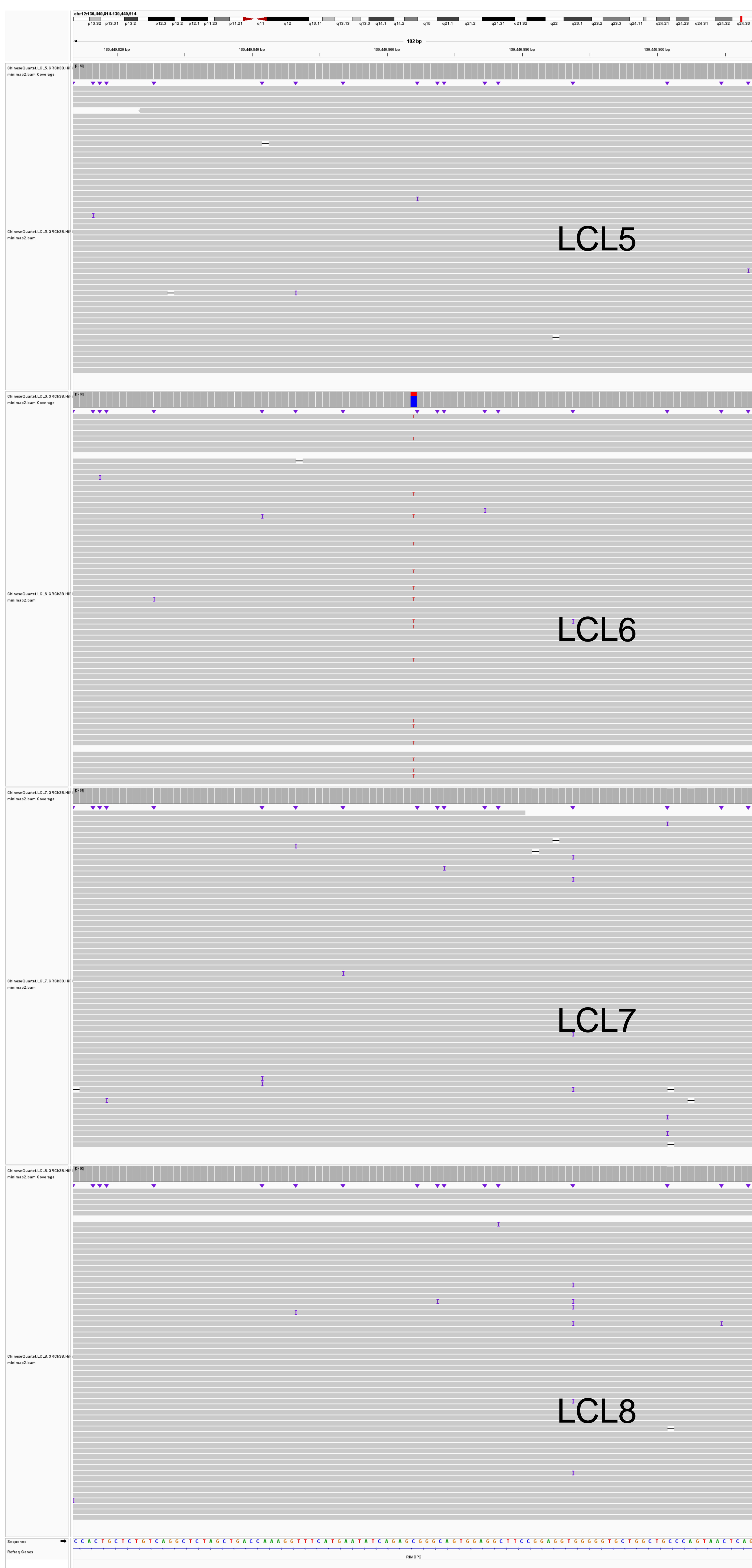
HiFi reads



Illumina reads



# POS:chr12:130440864 Report Somatic mutation by HiFi

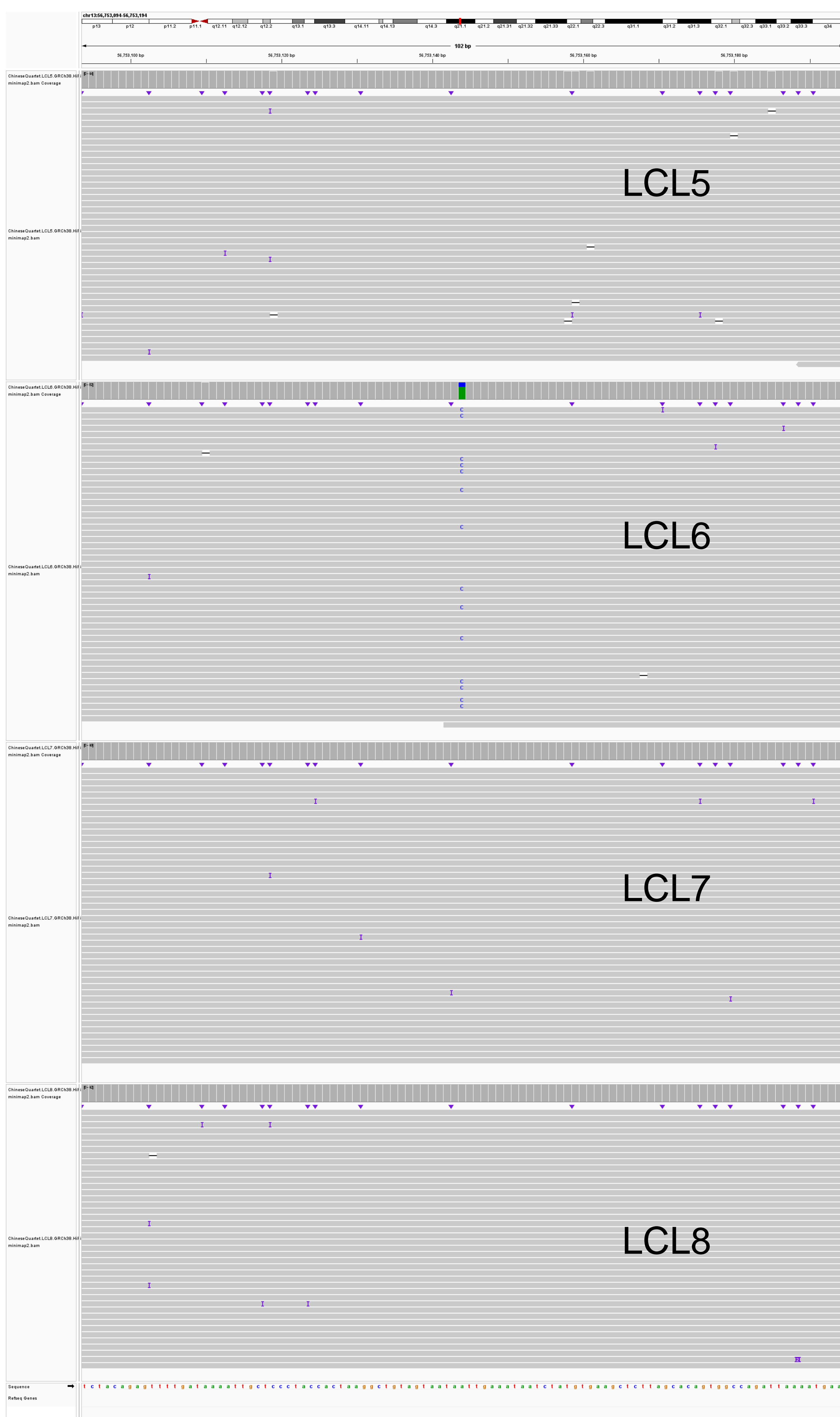


HiFi reads

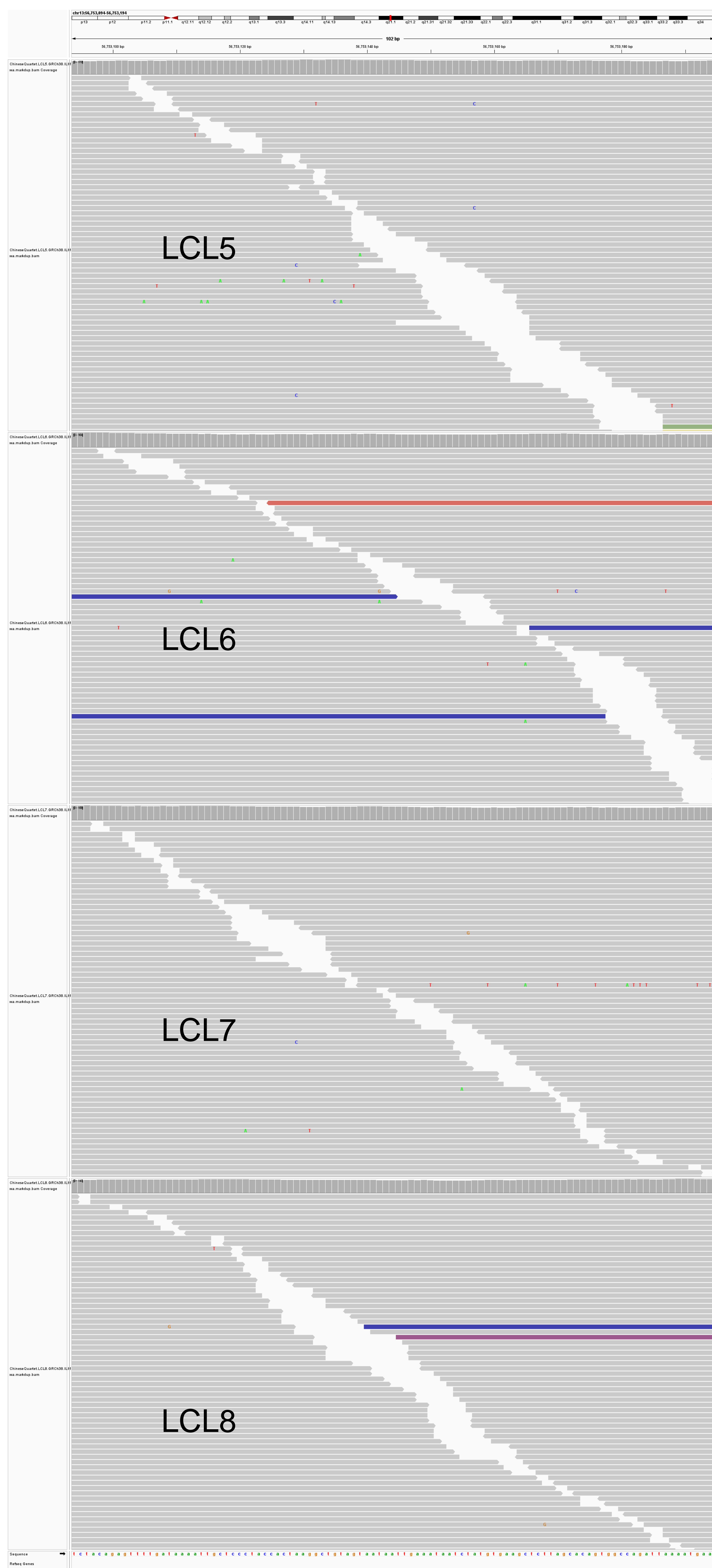


Illumina reads

# POS:chr13:56753144 Report Somatic mutation by HiFi

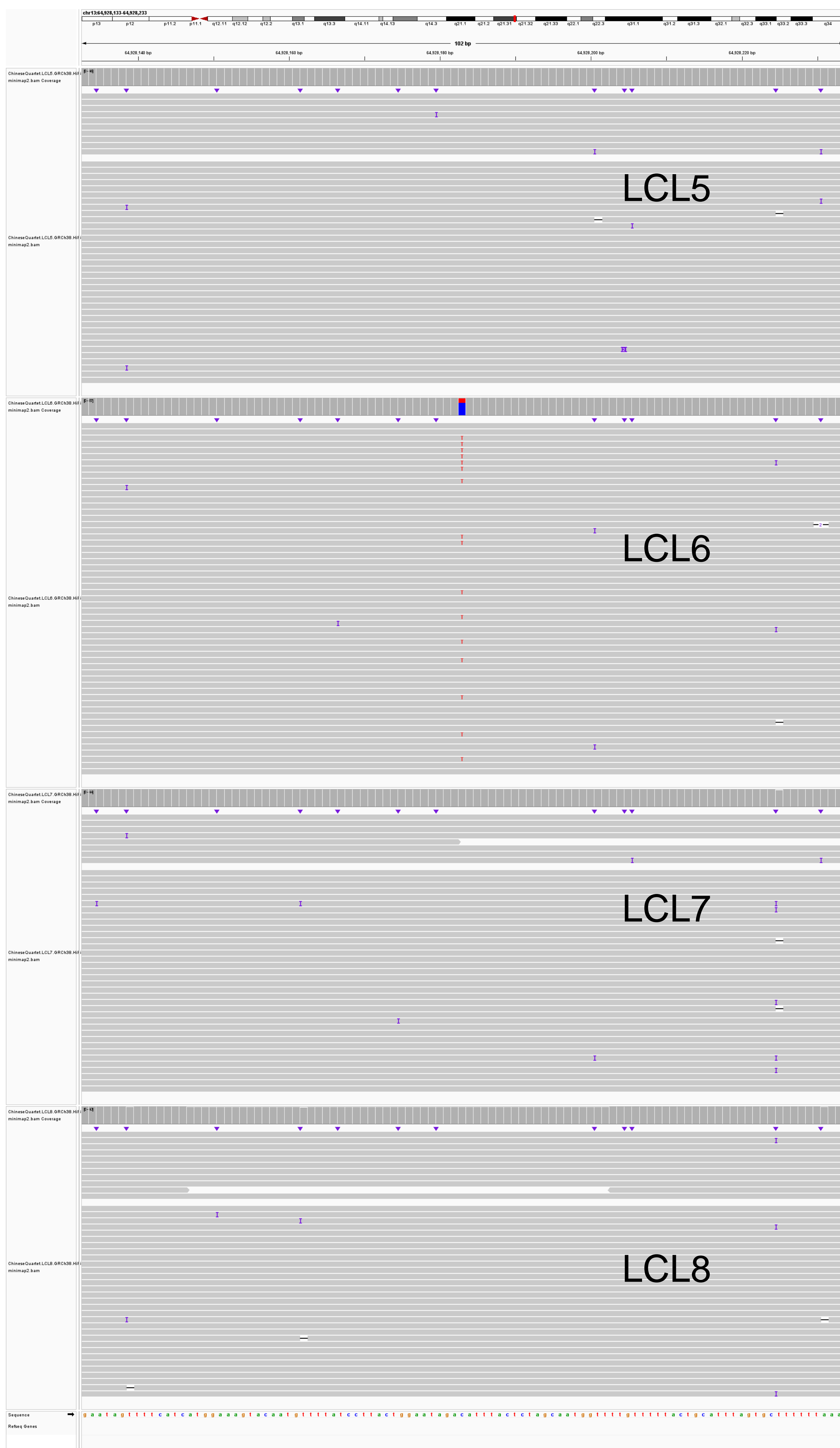


HiFi reads

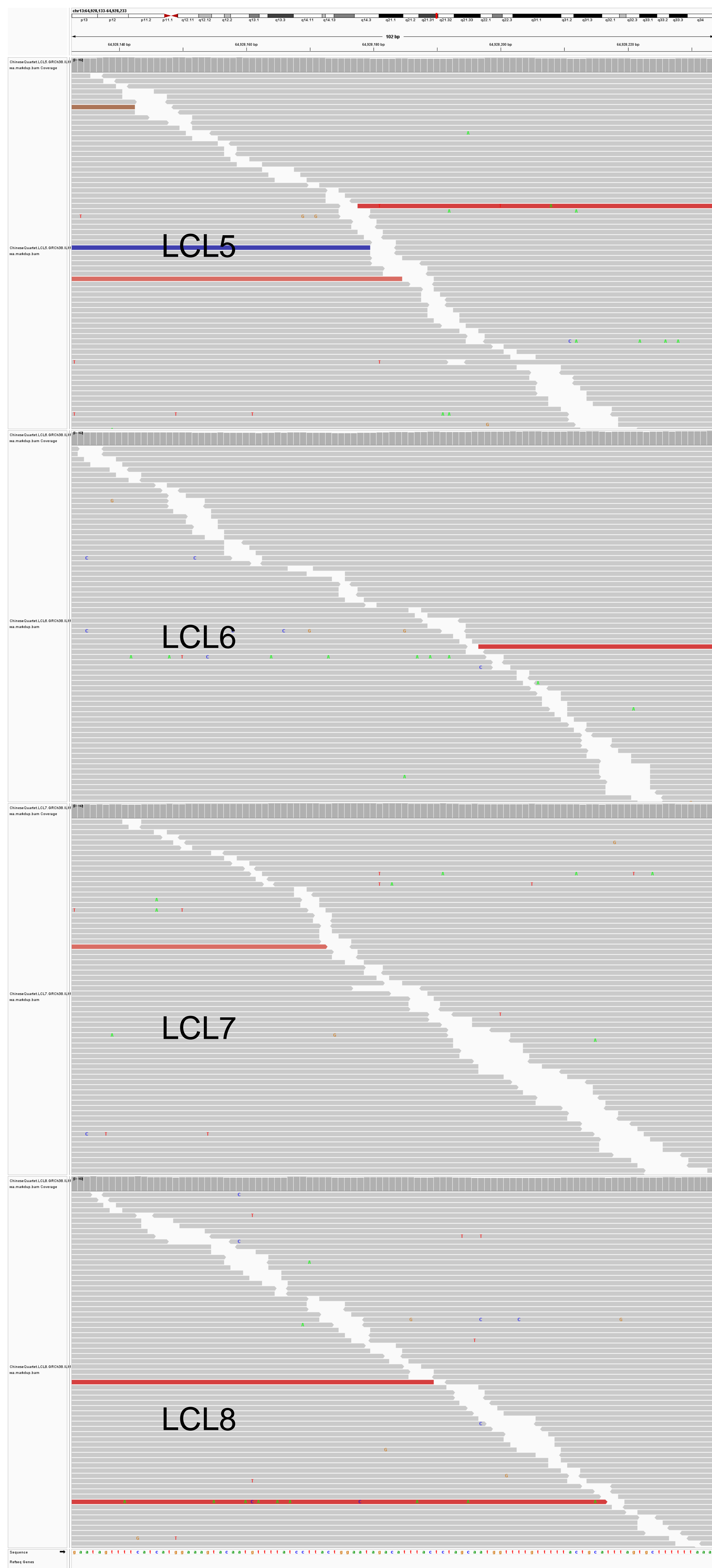


Illumina reads

# POS:chr13:64928183 Report Somatic mutation by HiFi

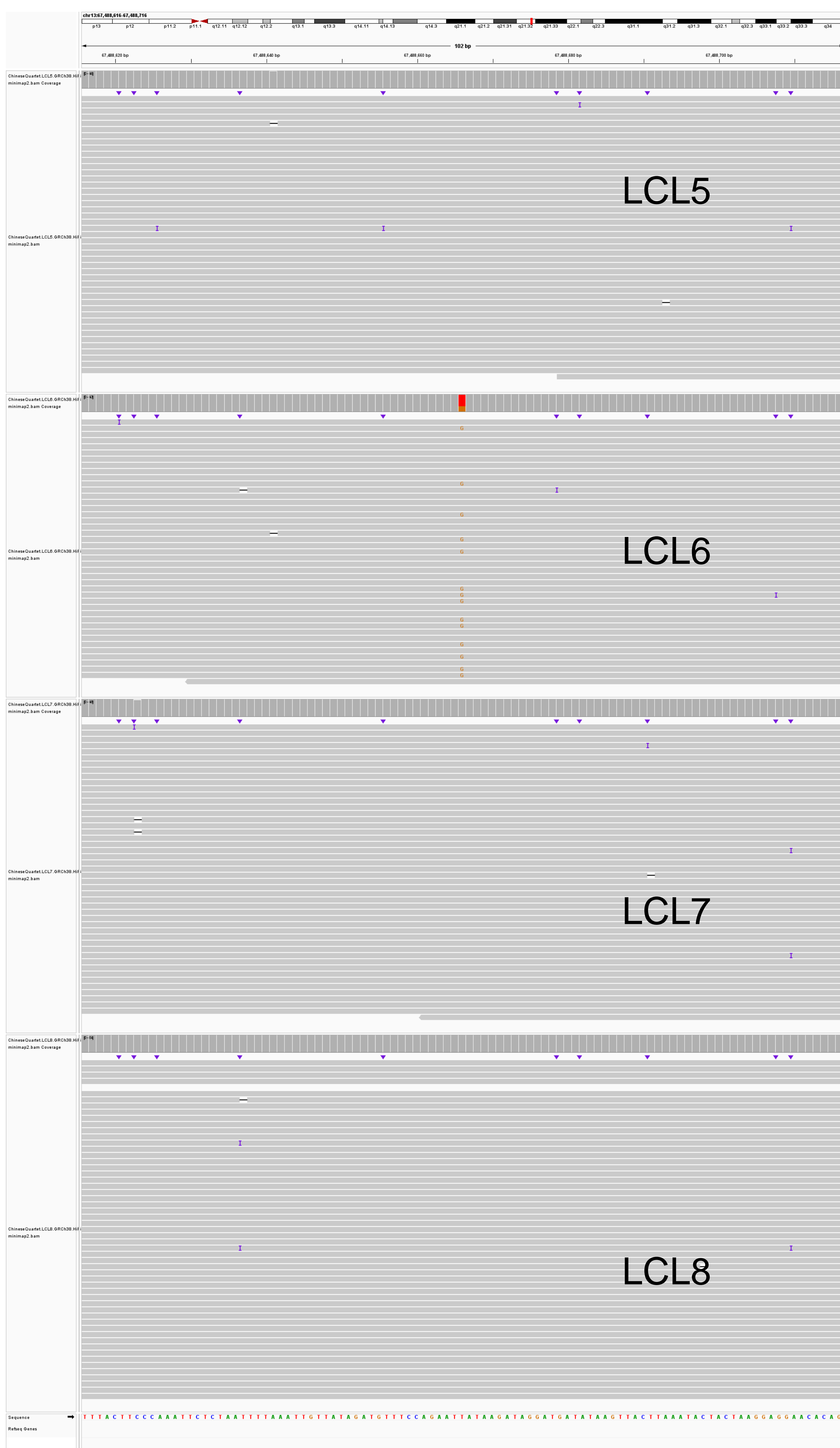


HiFi reads

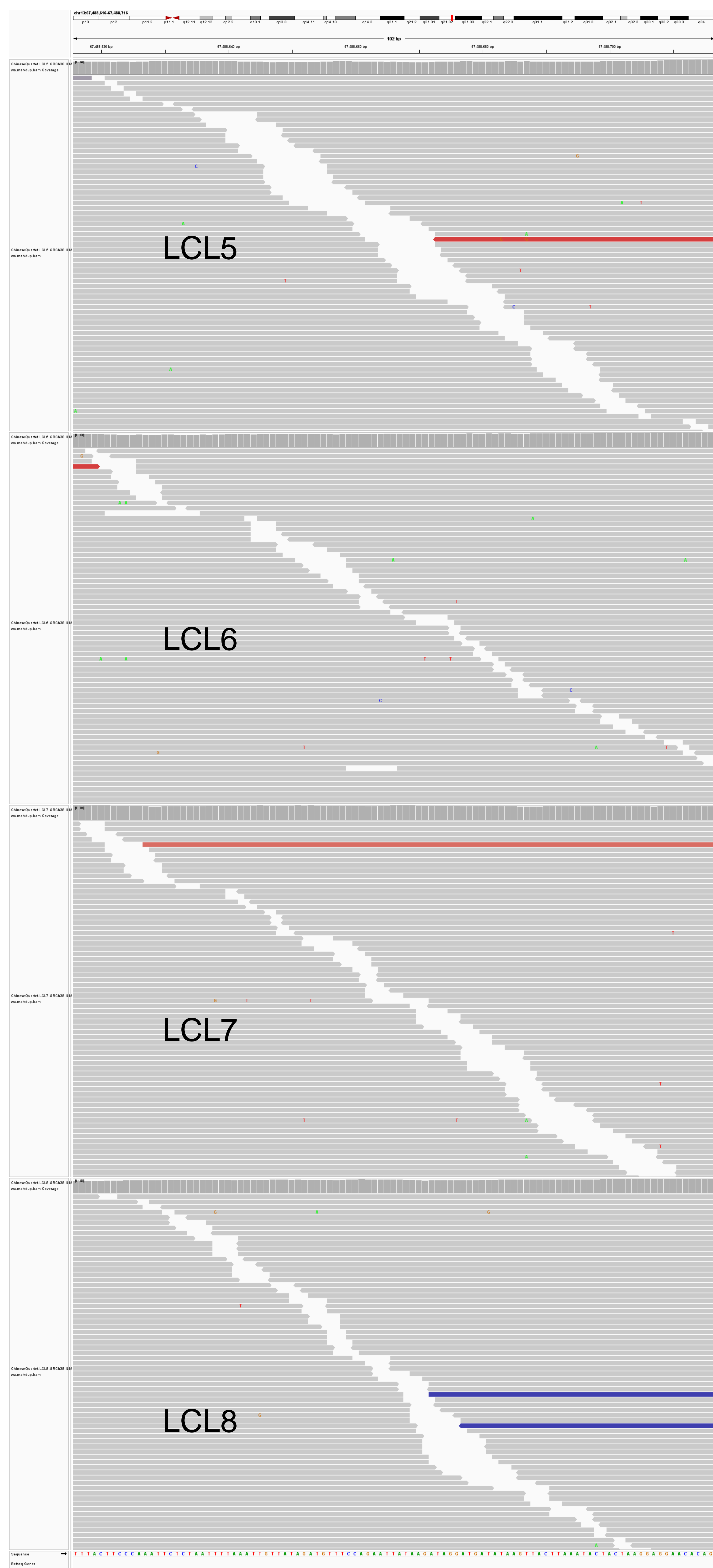


Illumina reads

# POS:chr13:67488666 Report Somatic mutation by HiFi



HiFi reads



Illumina reads

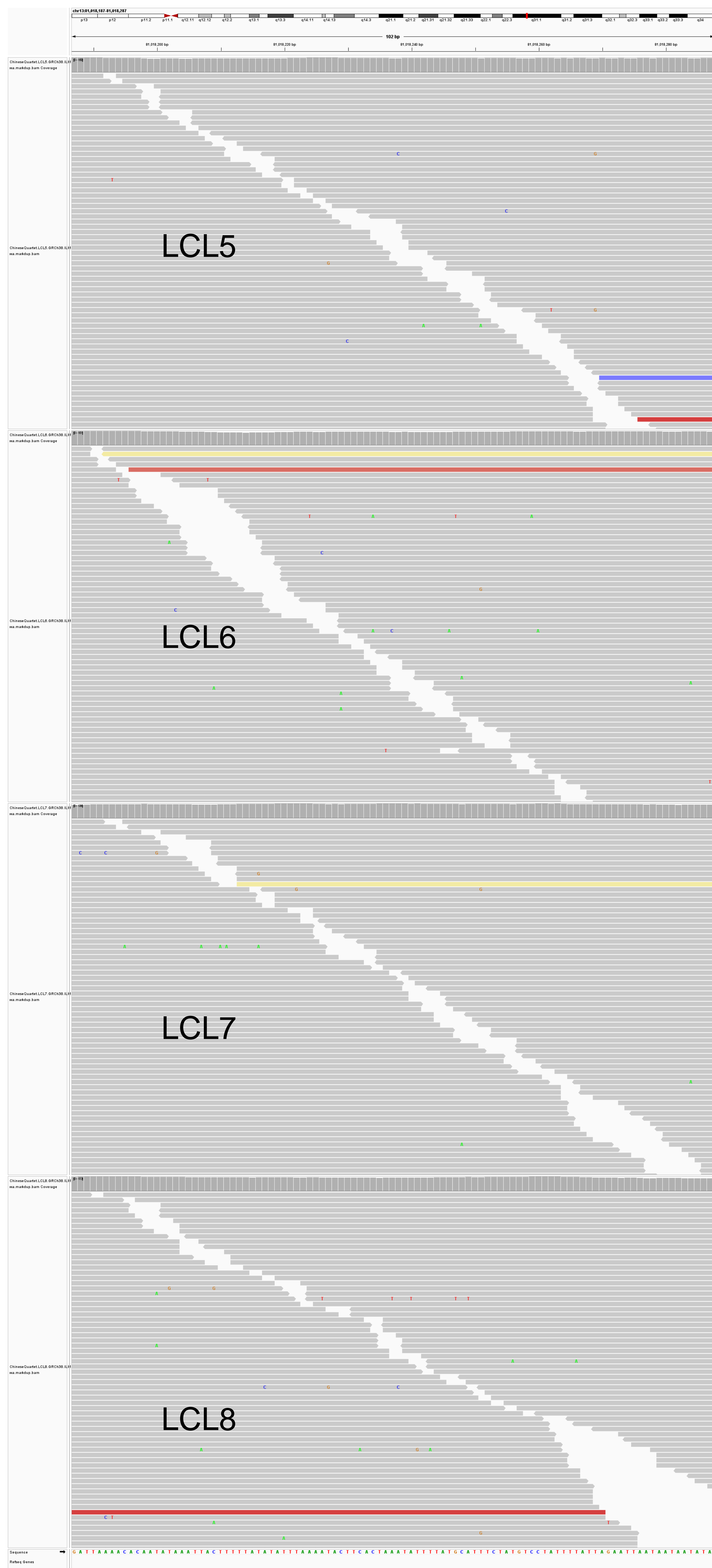




# POS:chr13:81018237 Report Somatic mutation by HiFi

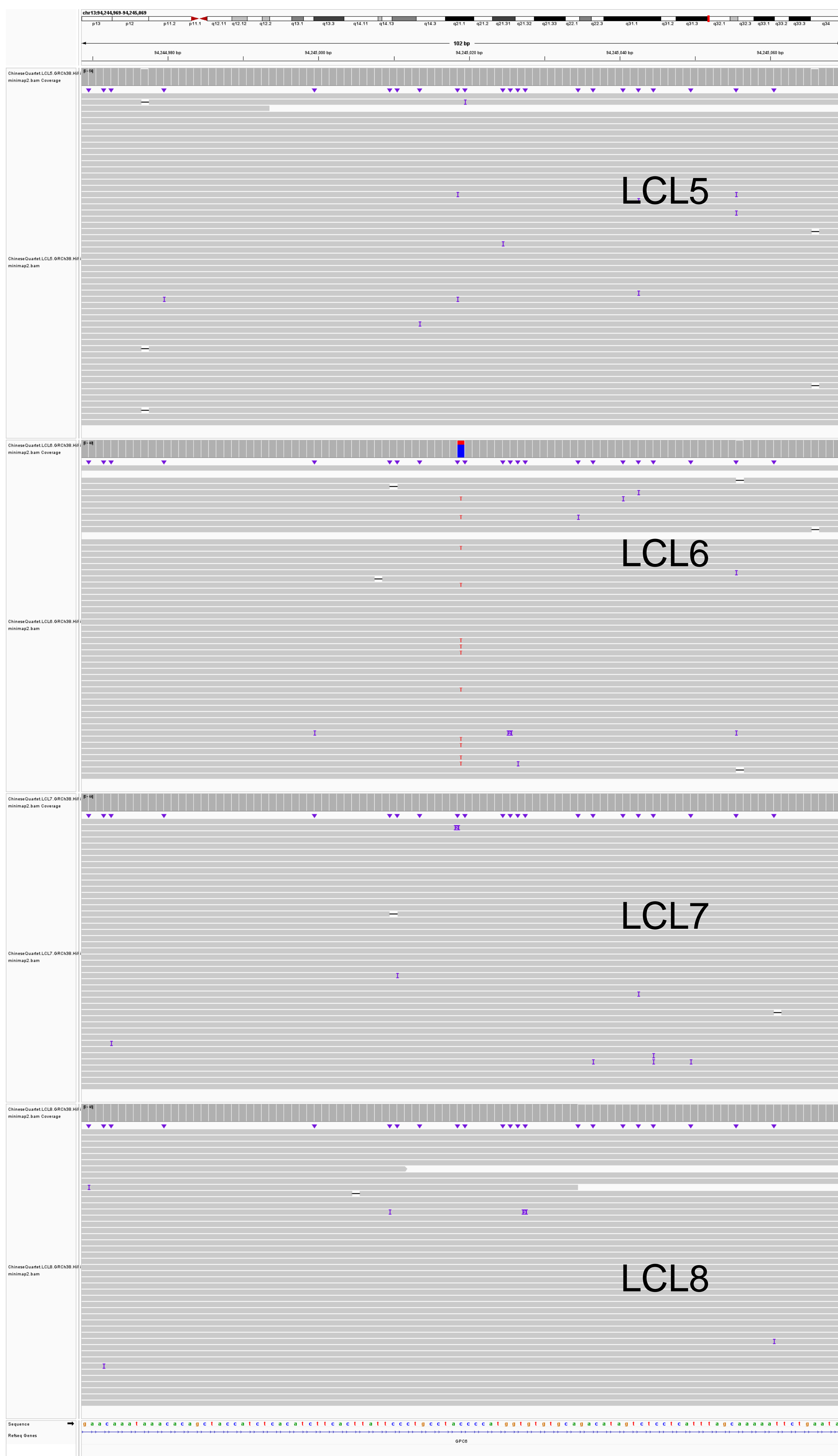


HiFi reads

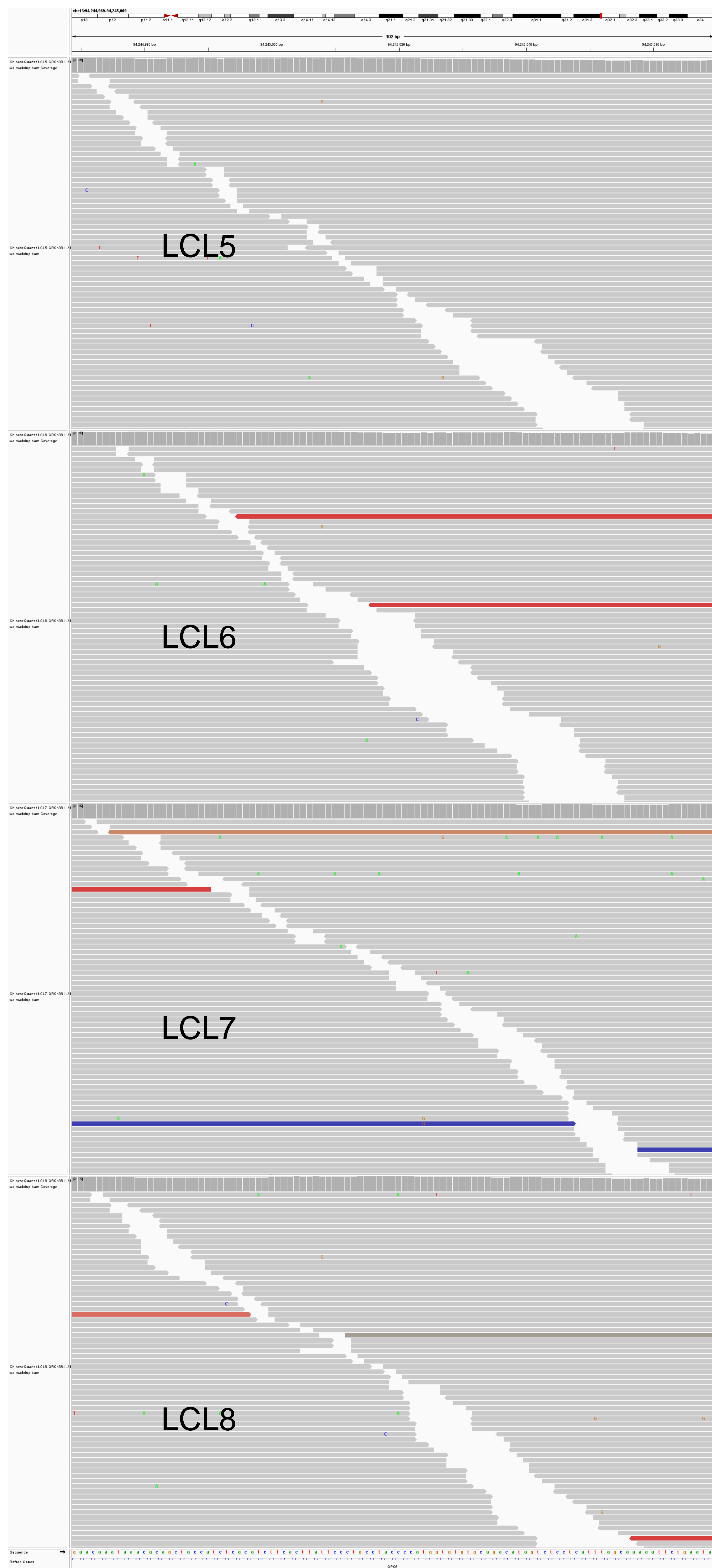


Illumina reads

# POS:chr13:94245019 Report Somatic mutation by HiFi

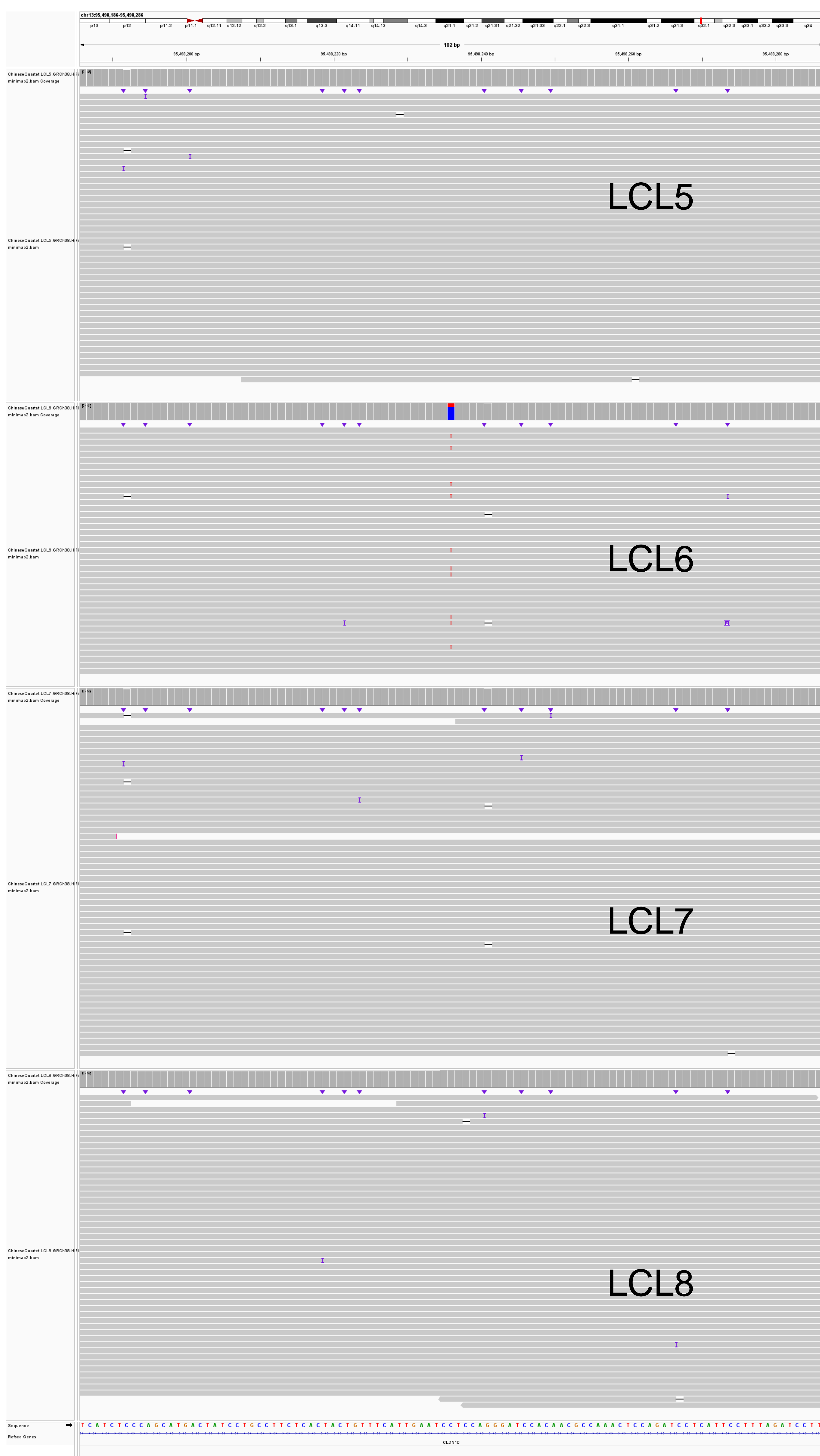


HiFi reads

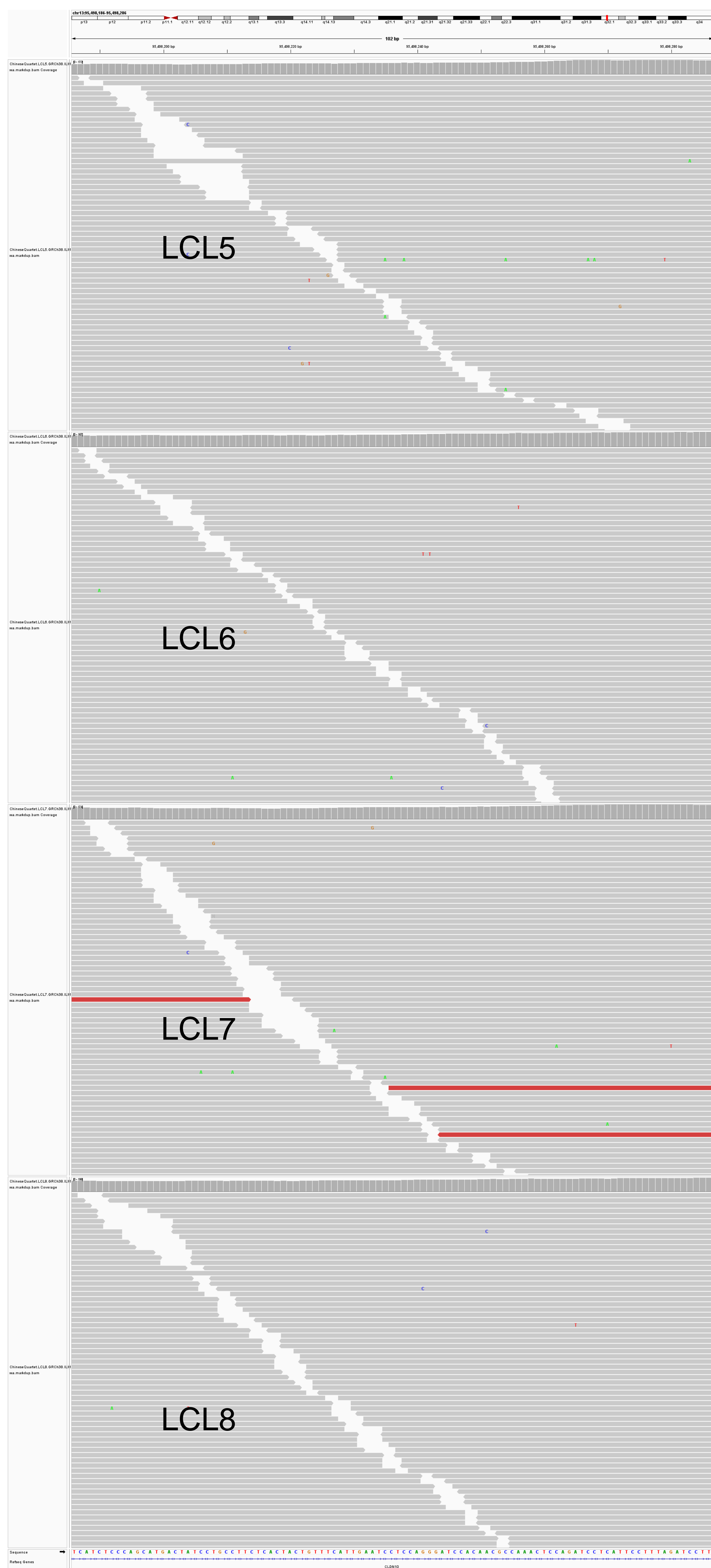


Illumina reads

# POS:chr13:95498236 Report Somatic mutation by HiFi



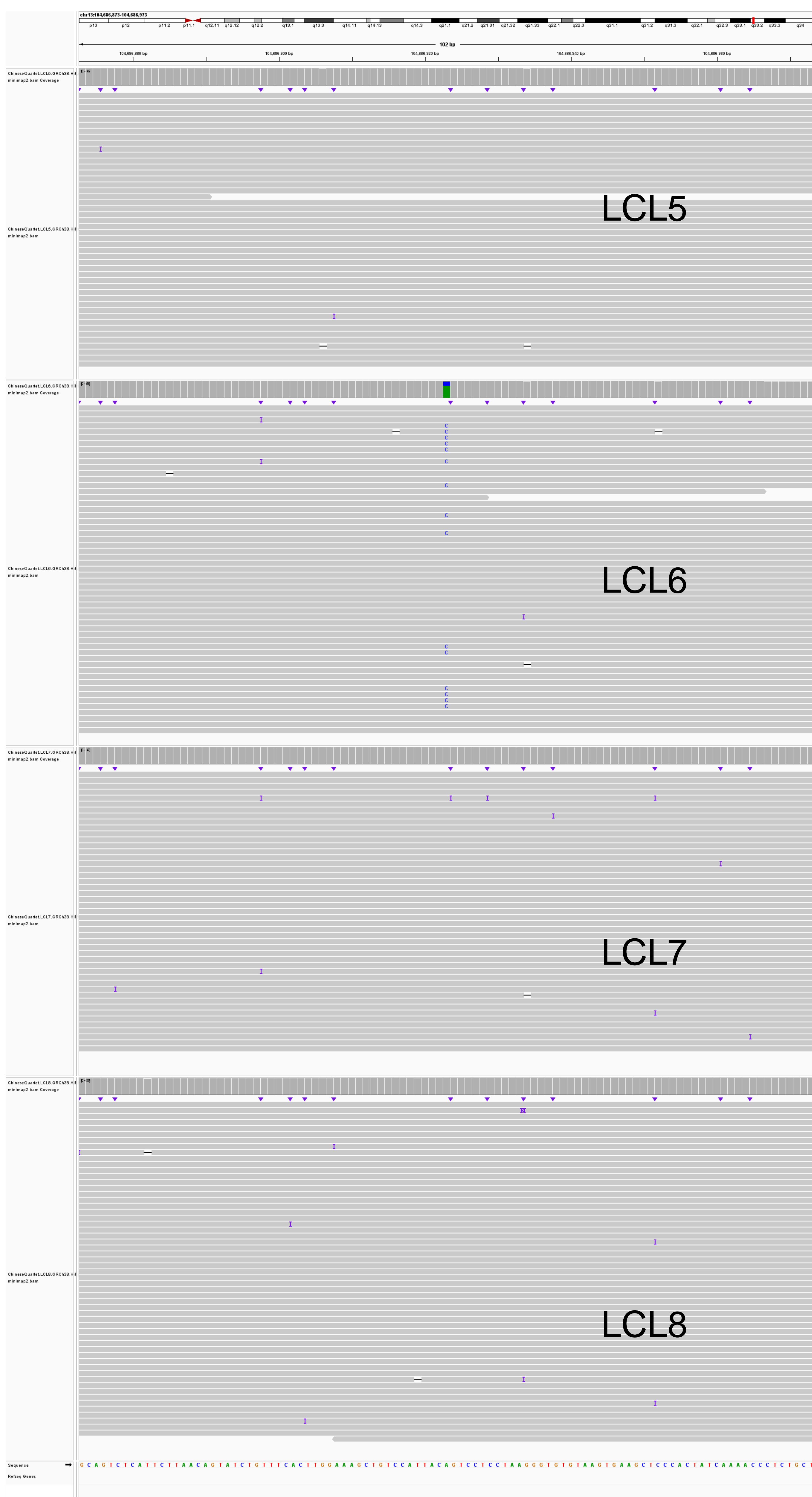
HiFi reads



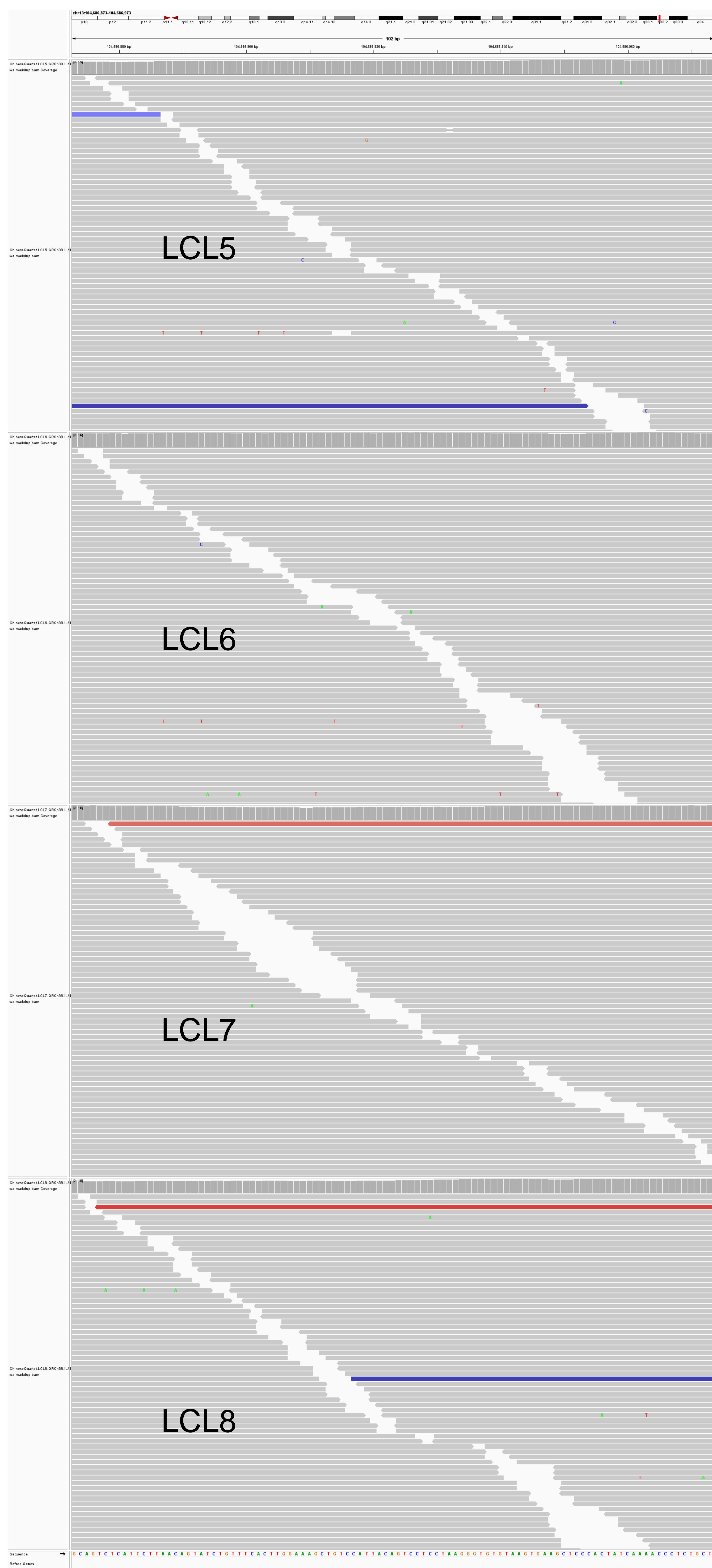
Illumina reads



# POS:chr13:104686923 Report Somatic mutation by HiFi

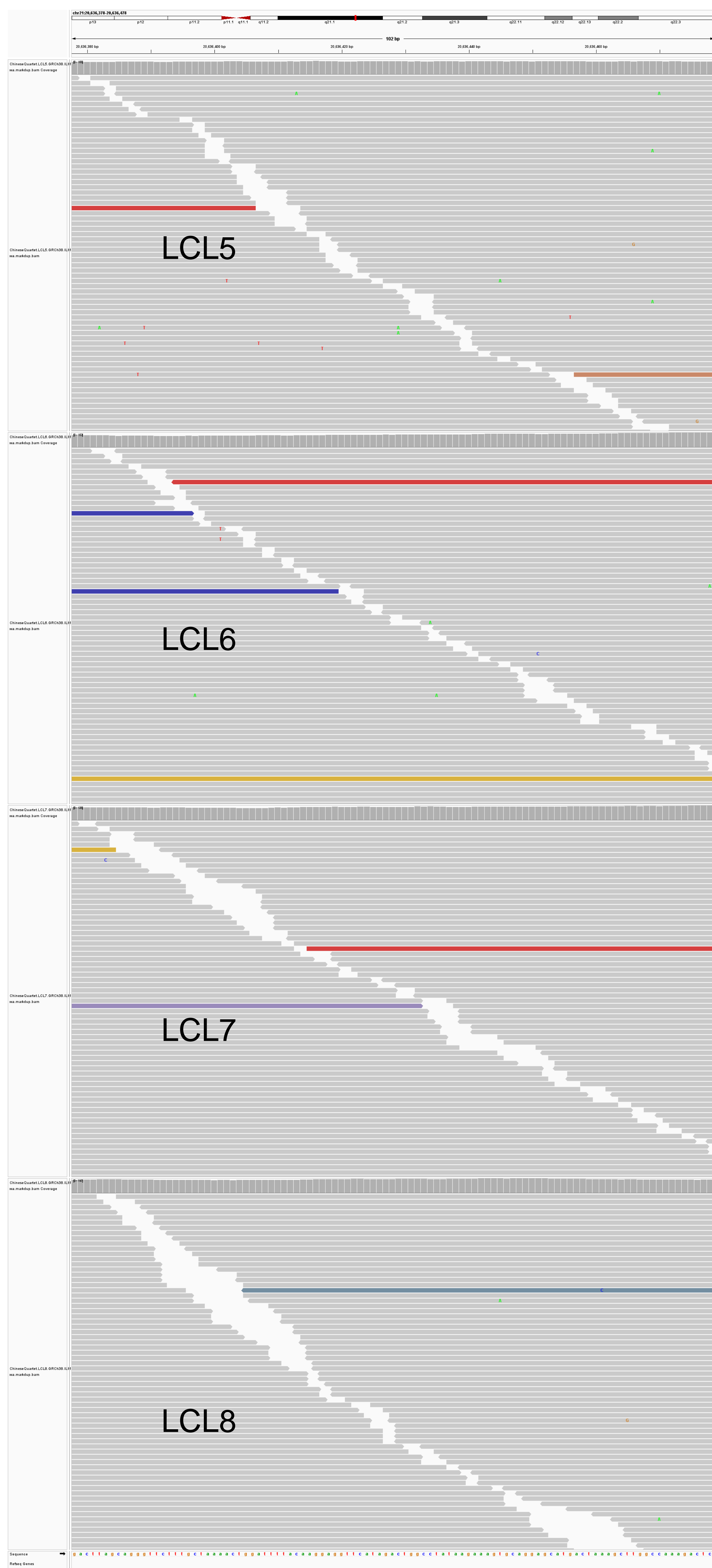
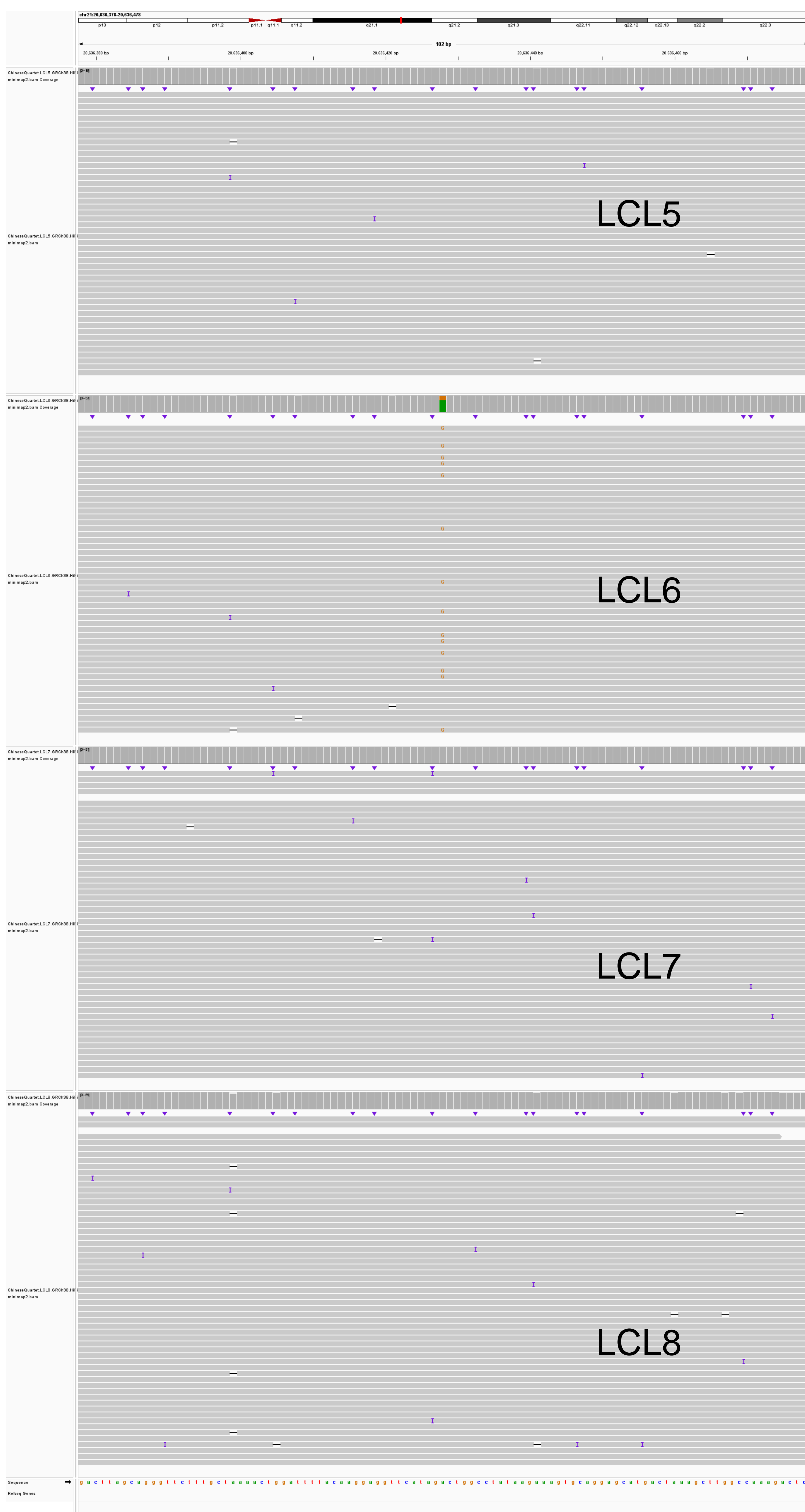


HiFi reads



Illumina reads

# POS:chr21:20636428 Report Somatic mutation by HiFi

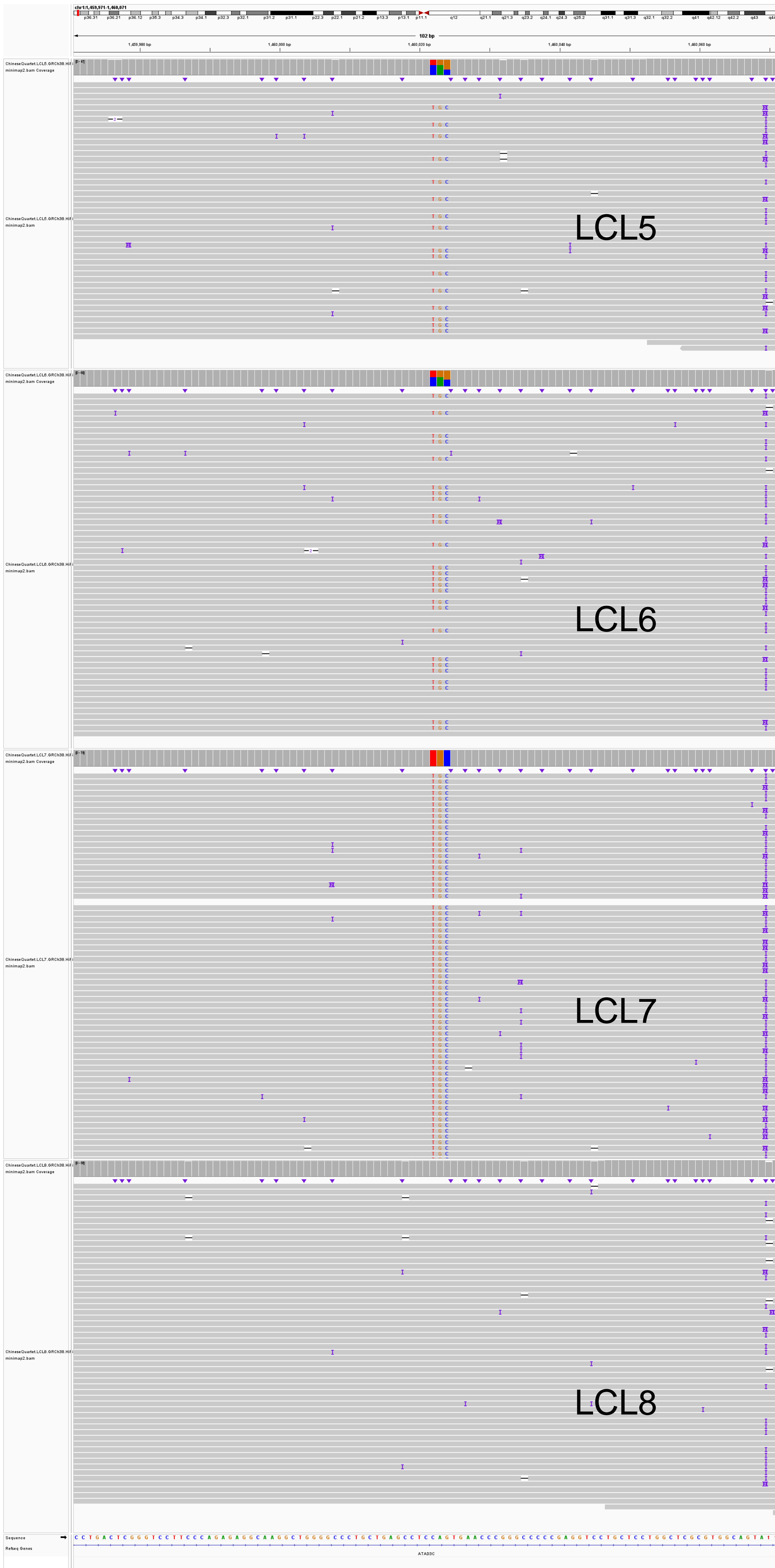


HiFi reads

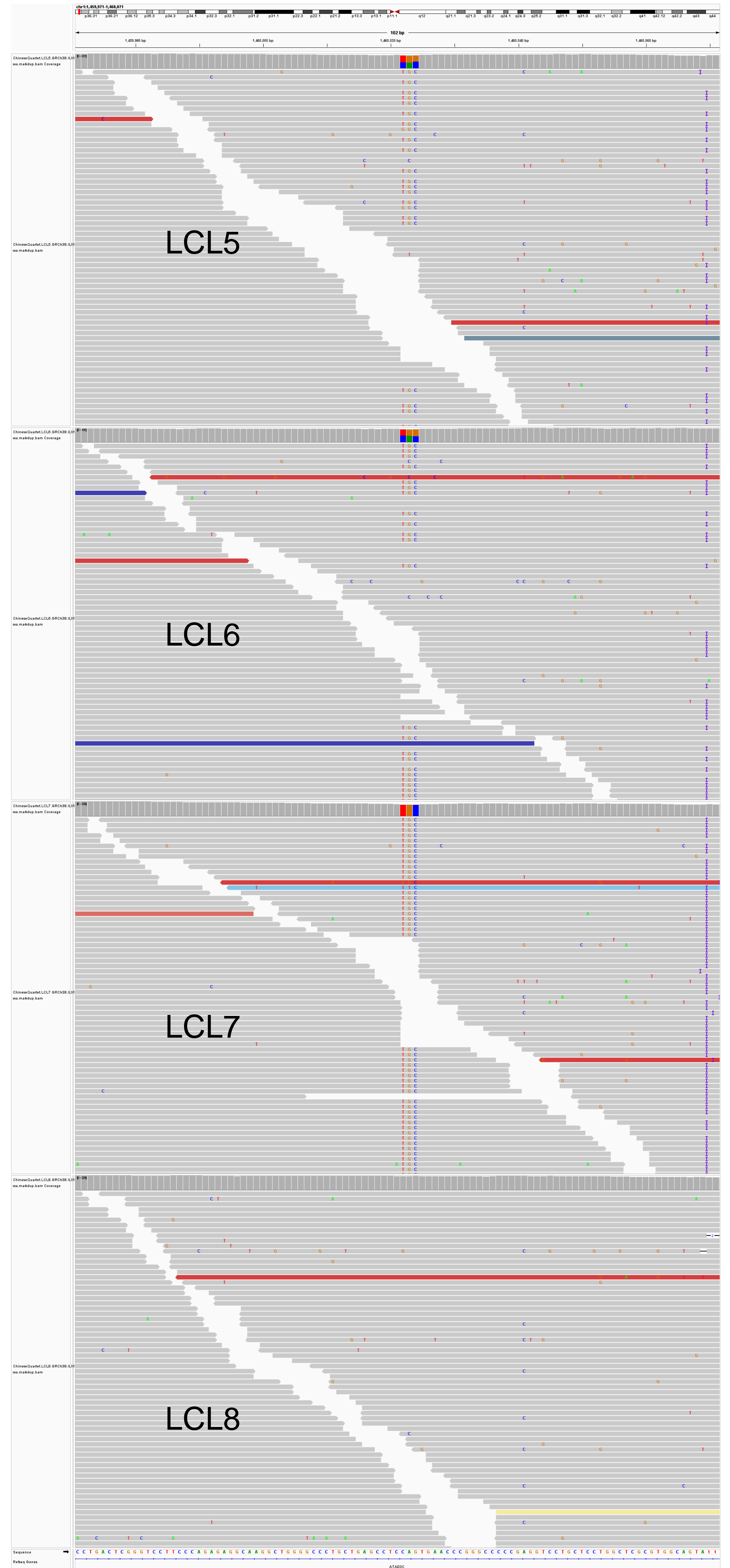
Illumina reads



# POS:chr1:1460021 Report DeNovo mutation by ILM



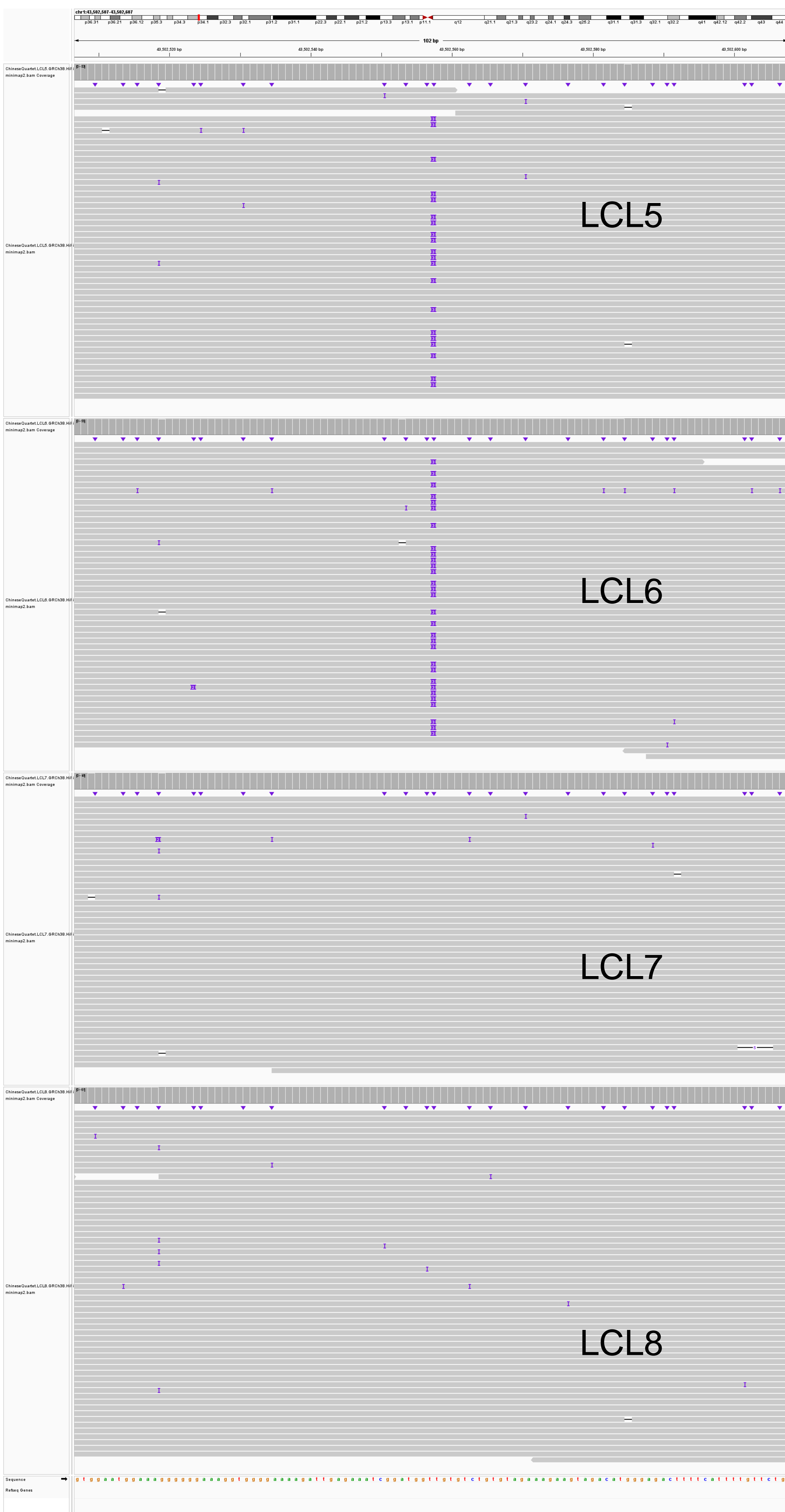
HiFi reads



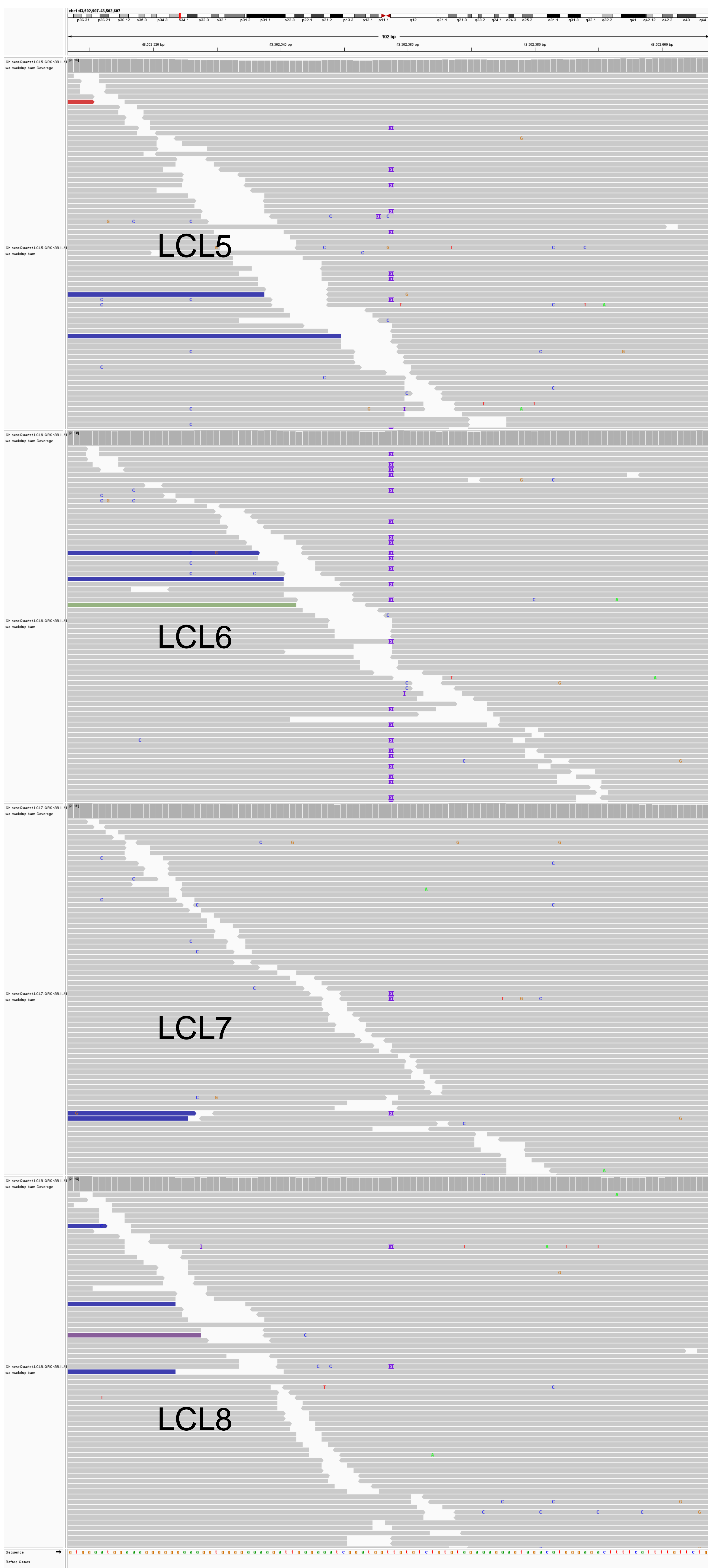
Illumina reads



# POS:chr1:43502557 Report DeNovo mutation by ILM

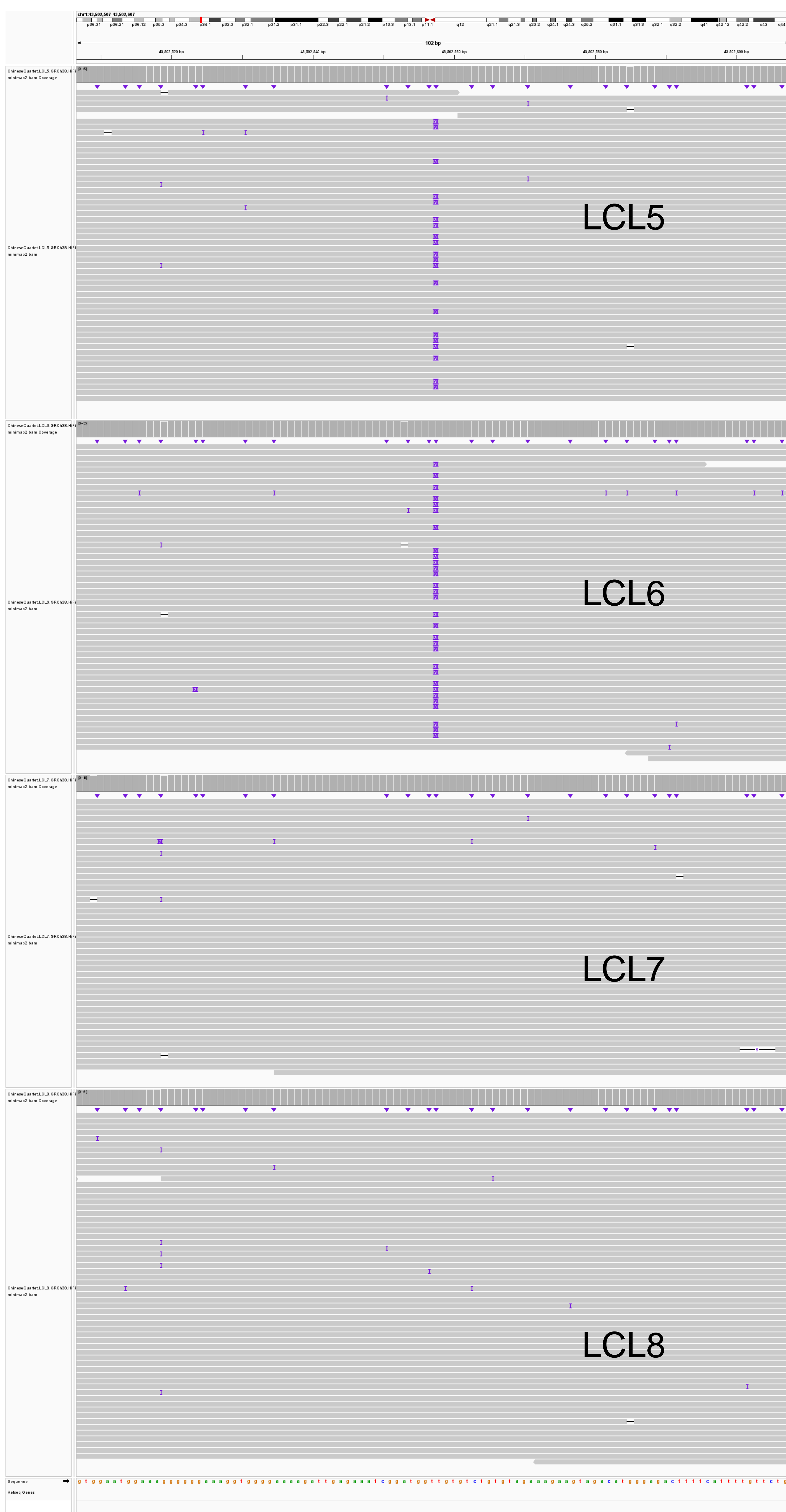


HiFi reads

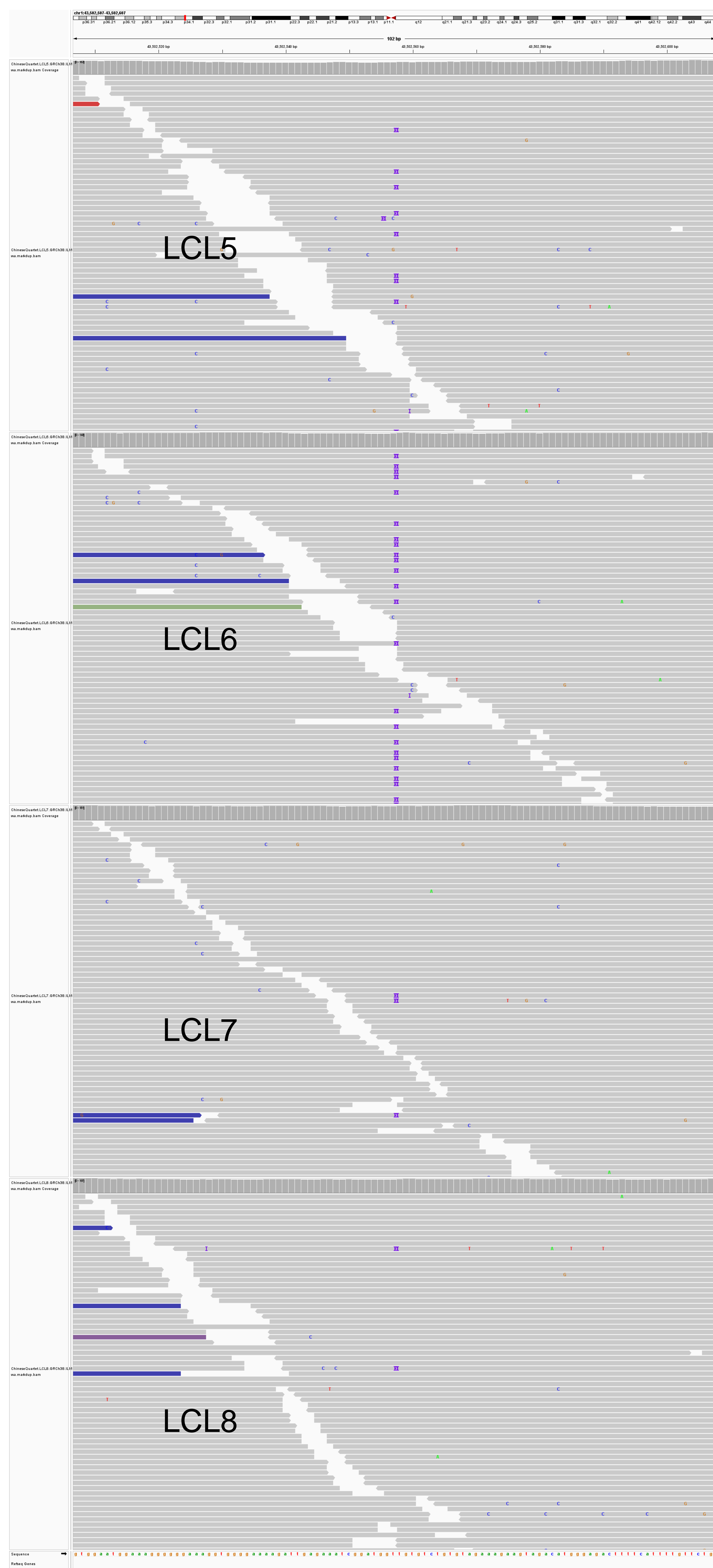


Illumina reads

# POS:chr1:43502557 Report DeNovo mutation by HiFi



HiFi reads

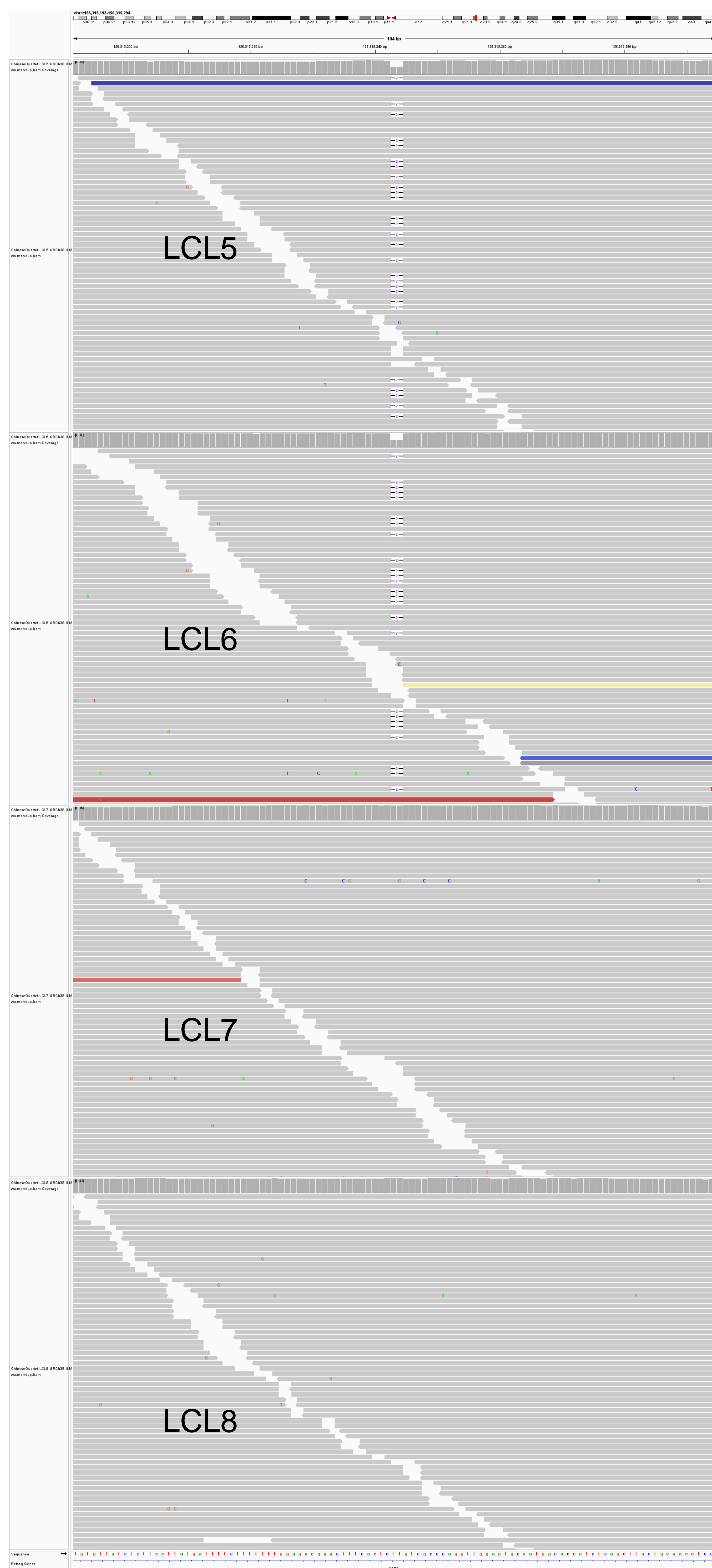


Illumina reads

# POS:chr1:156315242 Report DeNovo mutation by ILM



HiFi reads

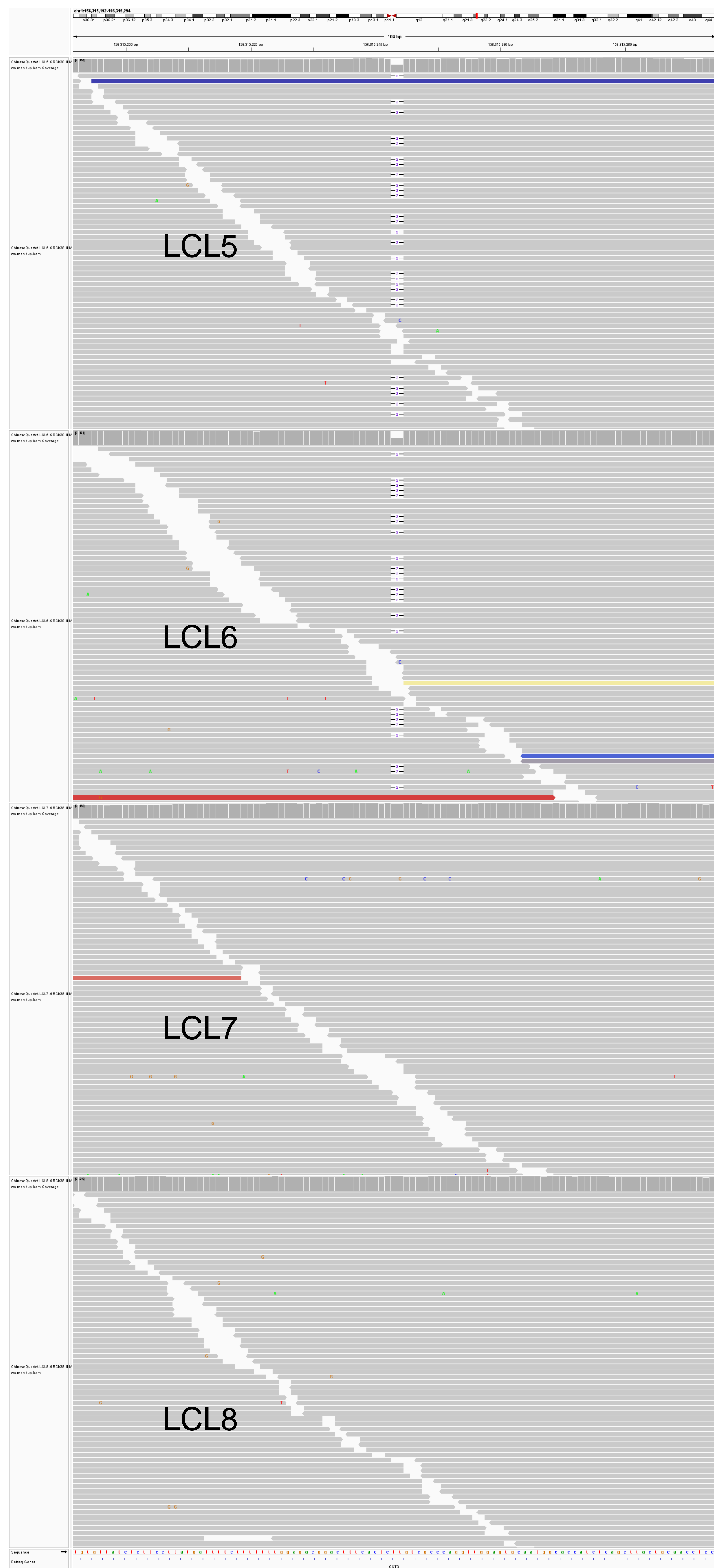


Illumina reads

# POS:chr1:156315242 Report DeNovo mutation by HiFi



HiFi reads

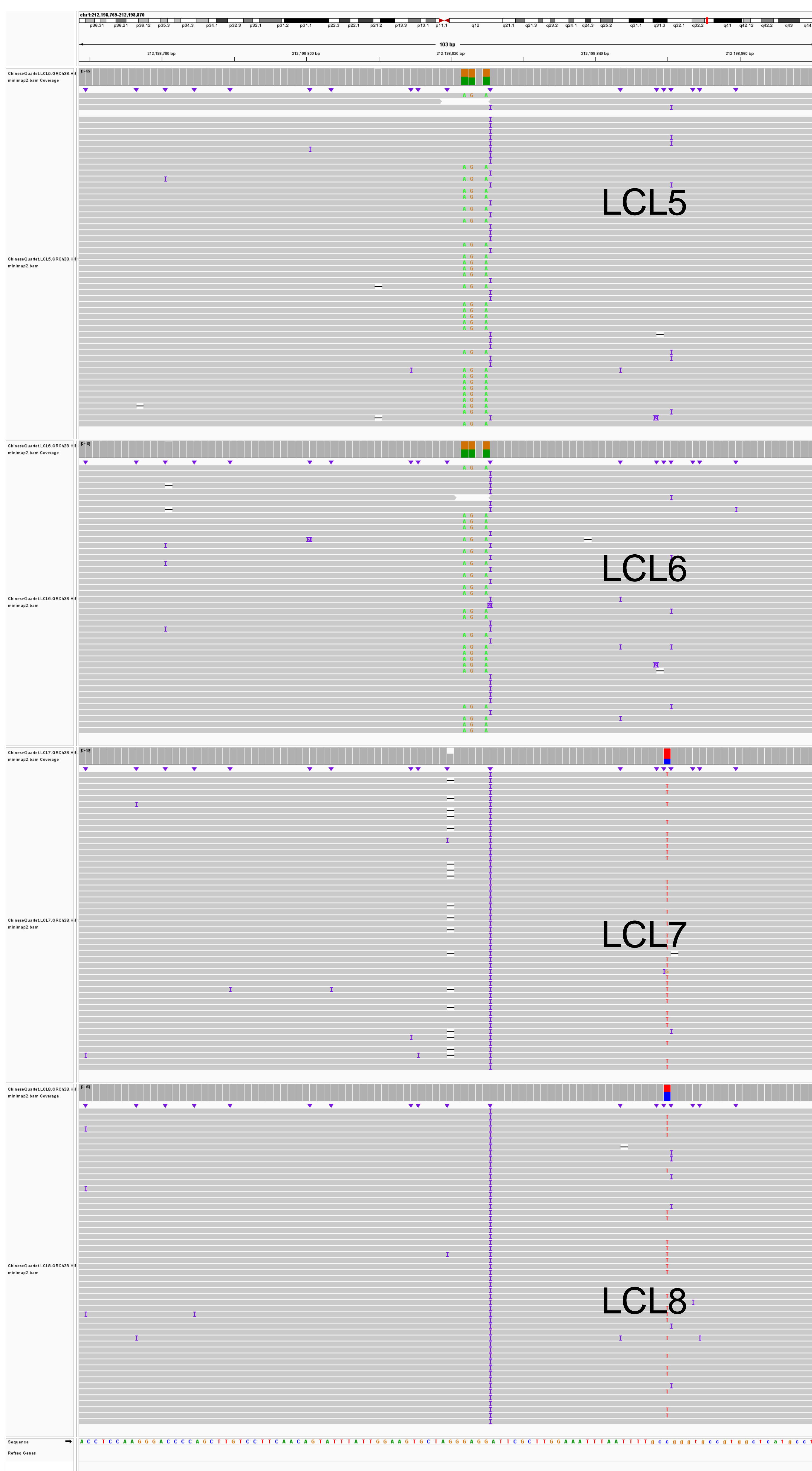


Illumina reads

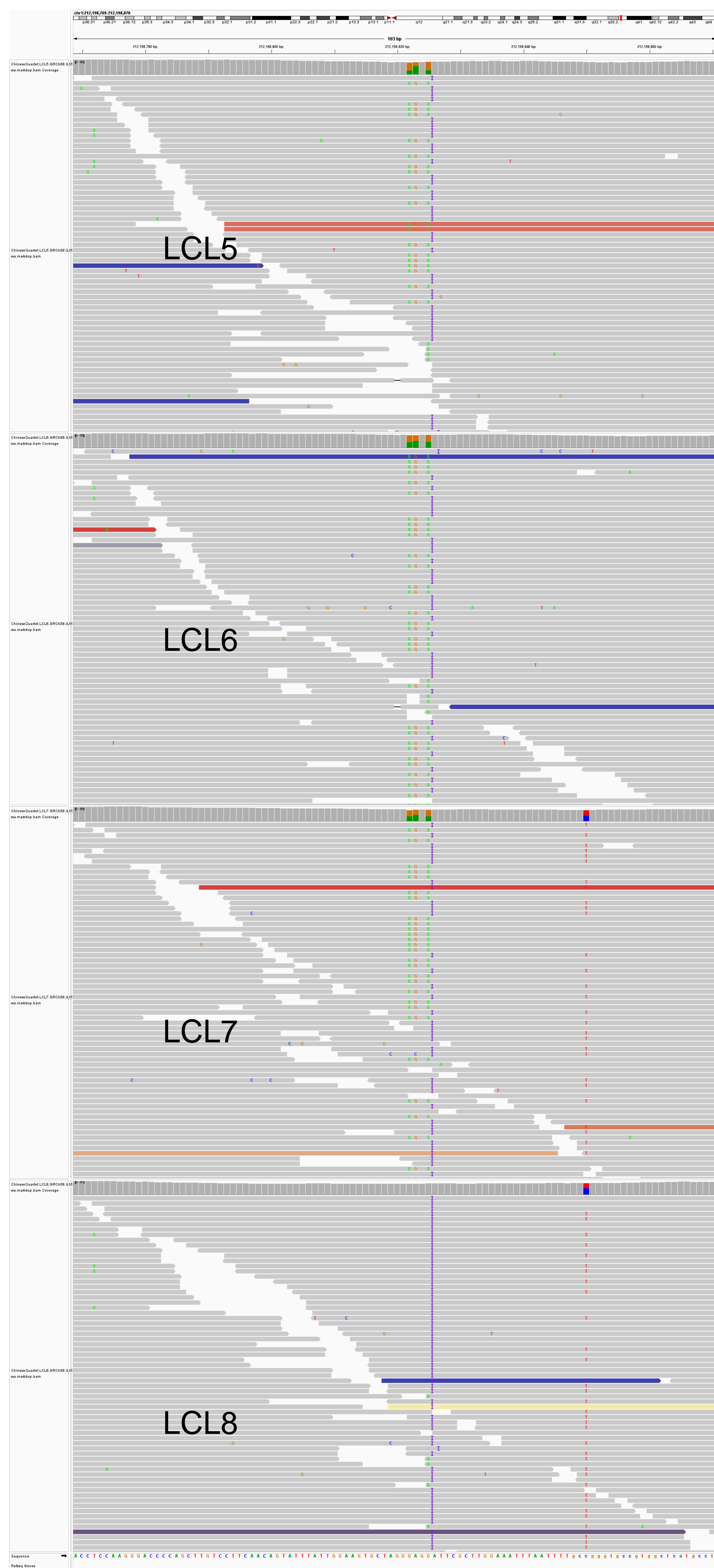




# POS:chr1:212198819 Report Somatic mutation by ILM

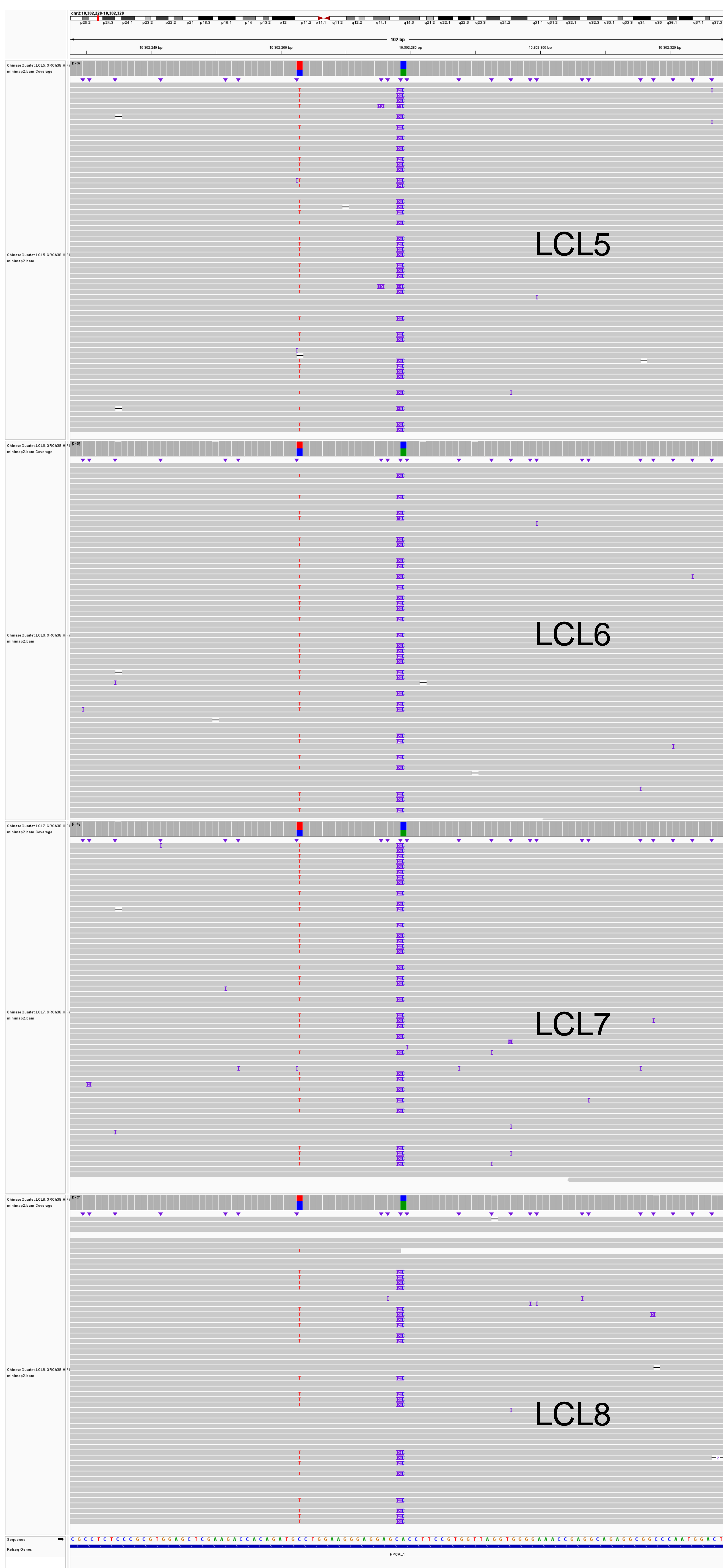


HiFi reads

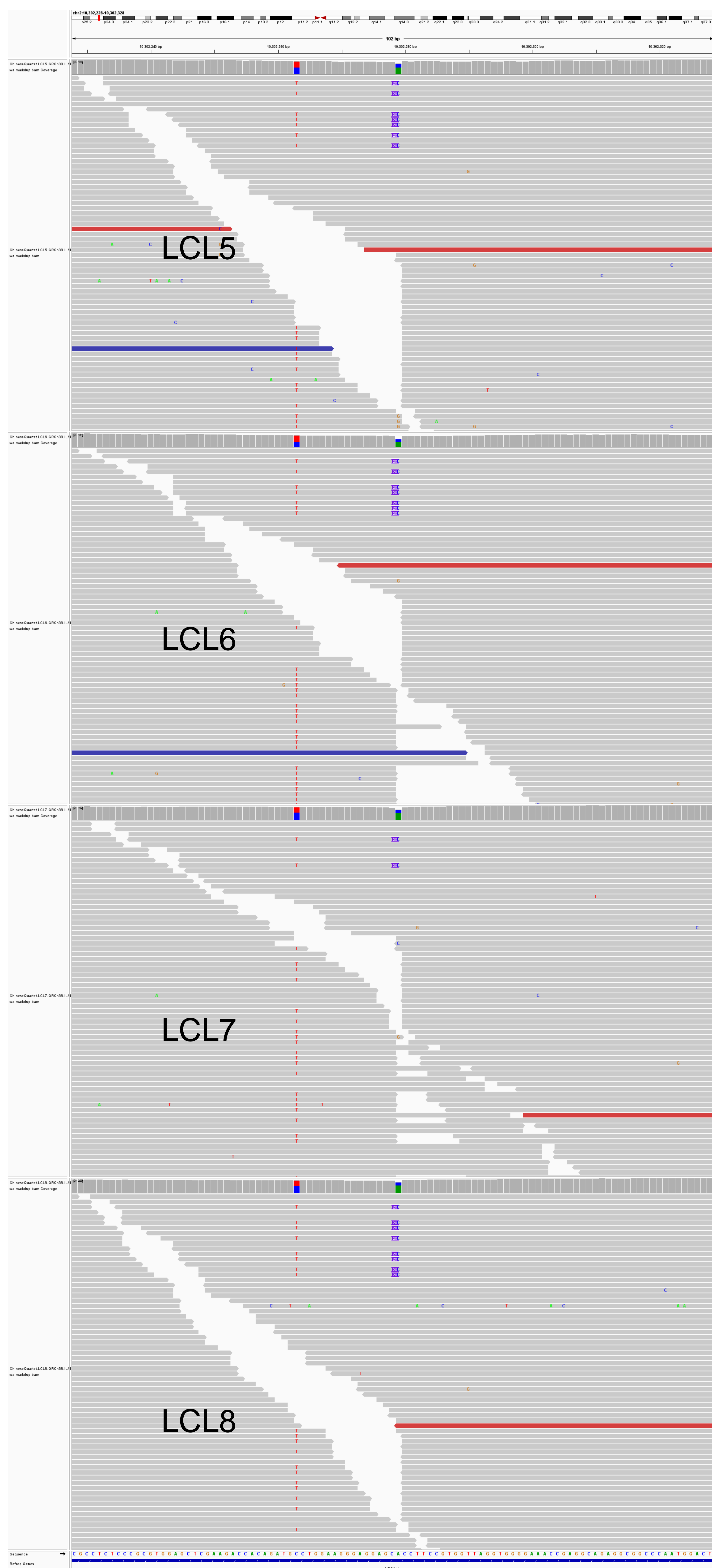


Illumina reads

# POS:chr2:10302278 Report Somatic mutation by ILM



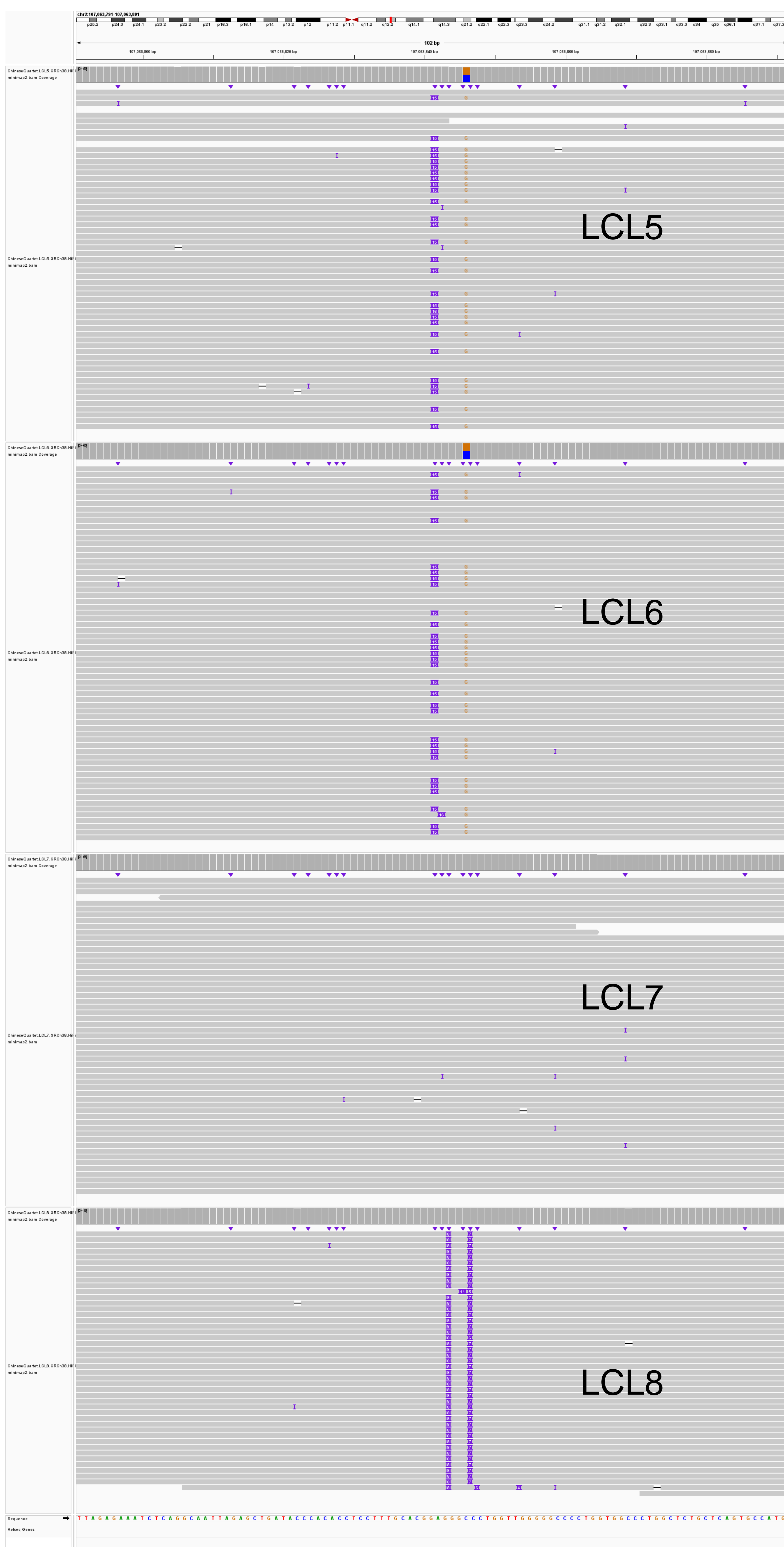
HiFi reads



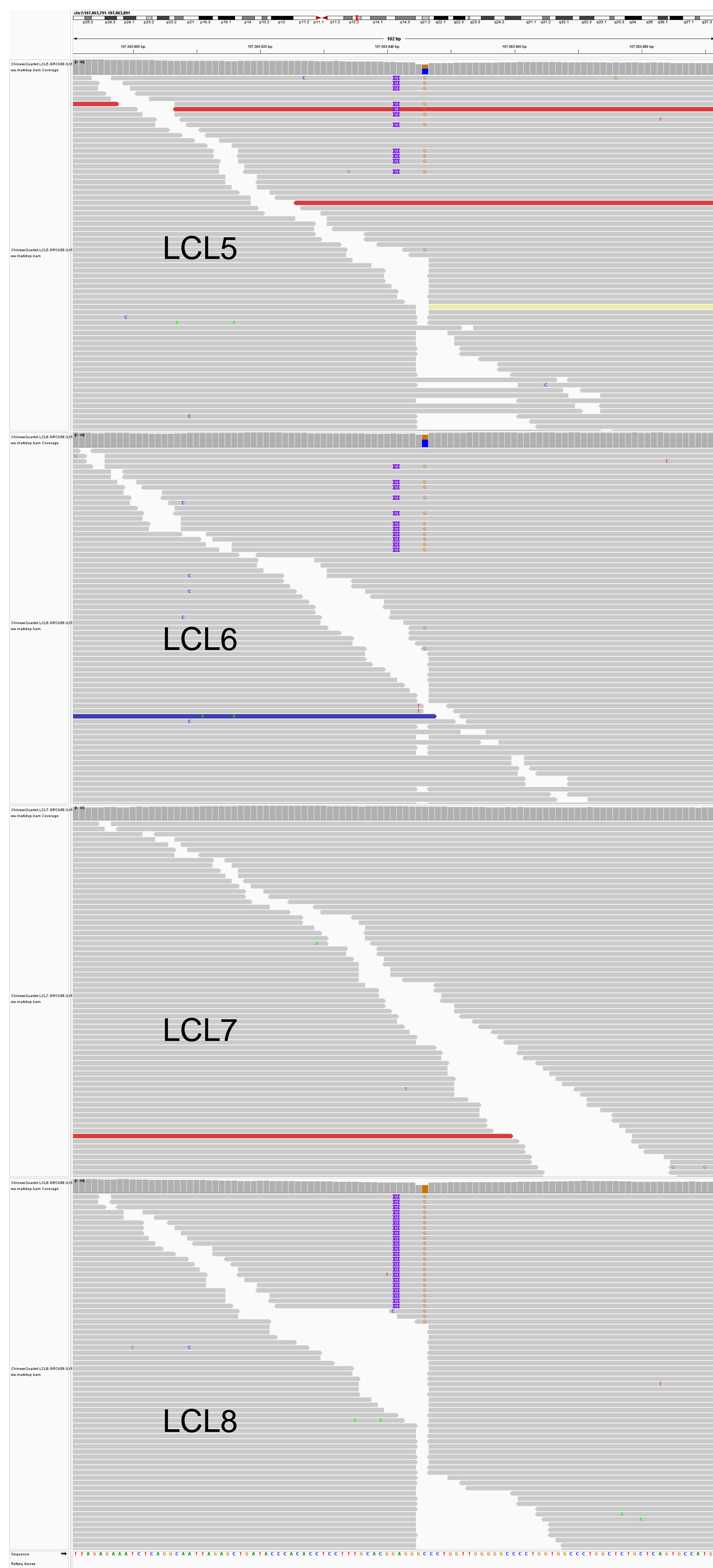
Illumina reads



# POS:chr2:107063841 Report Somatic mutation by ILM



HiFi reads



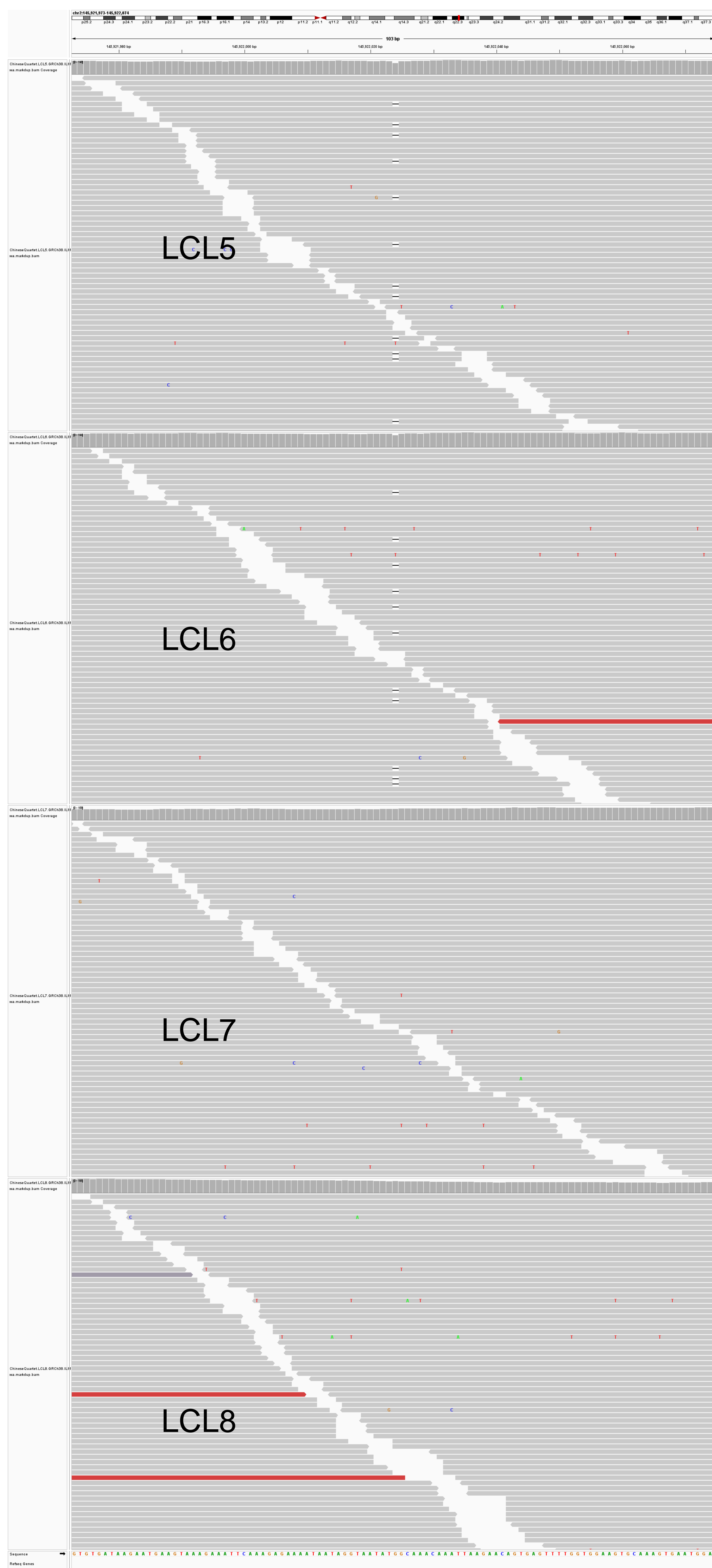
Illumina reads



# POS:chr2:145922023 Report Somatic mutation by HiFi

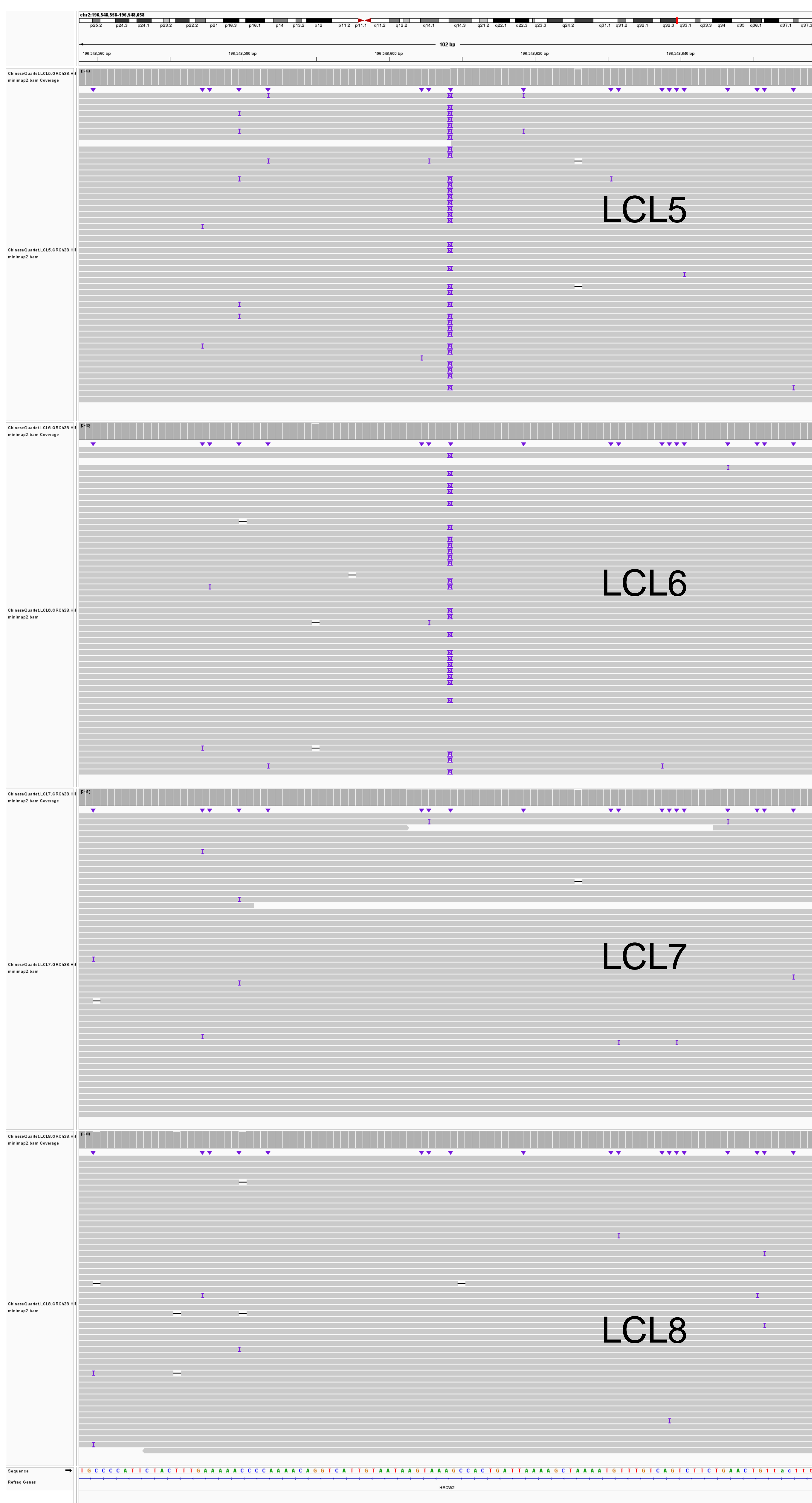


HiFi reads

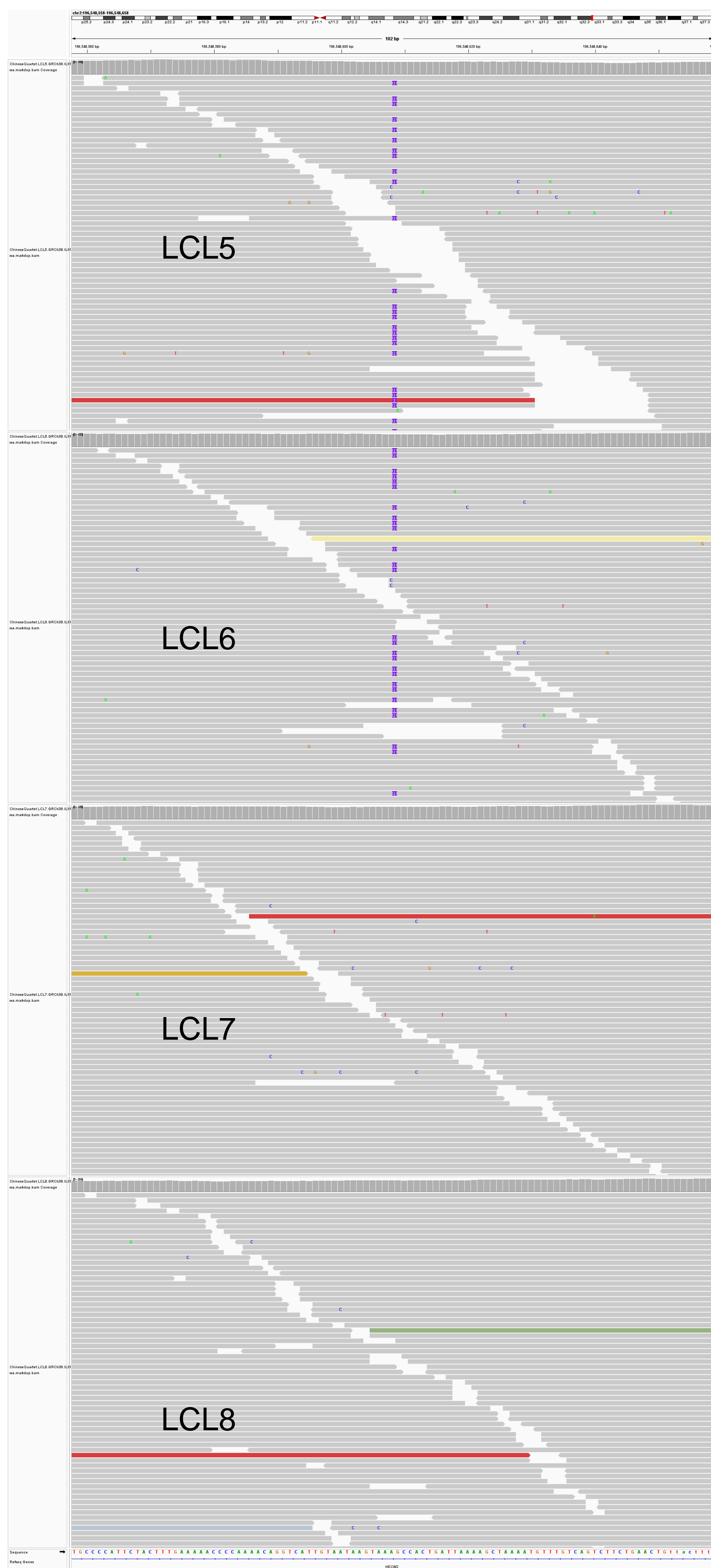


Illumina reads

# POS:chr2:196548608 Report DeNovo mutation by ILM

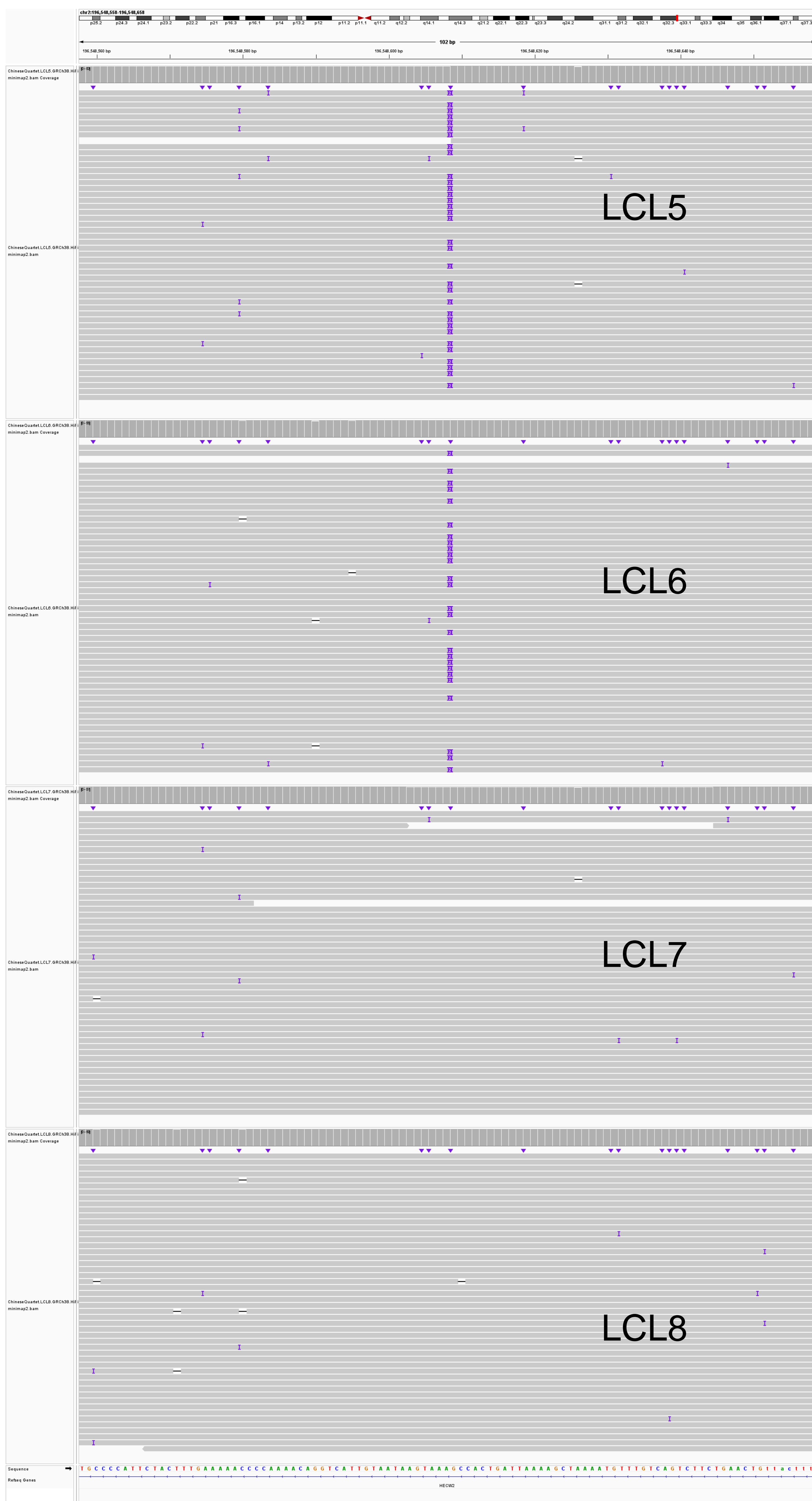


HiFi reads

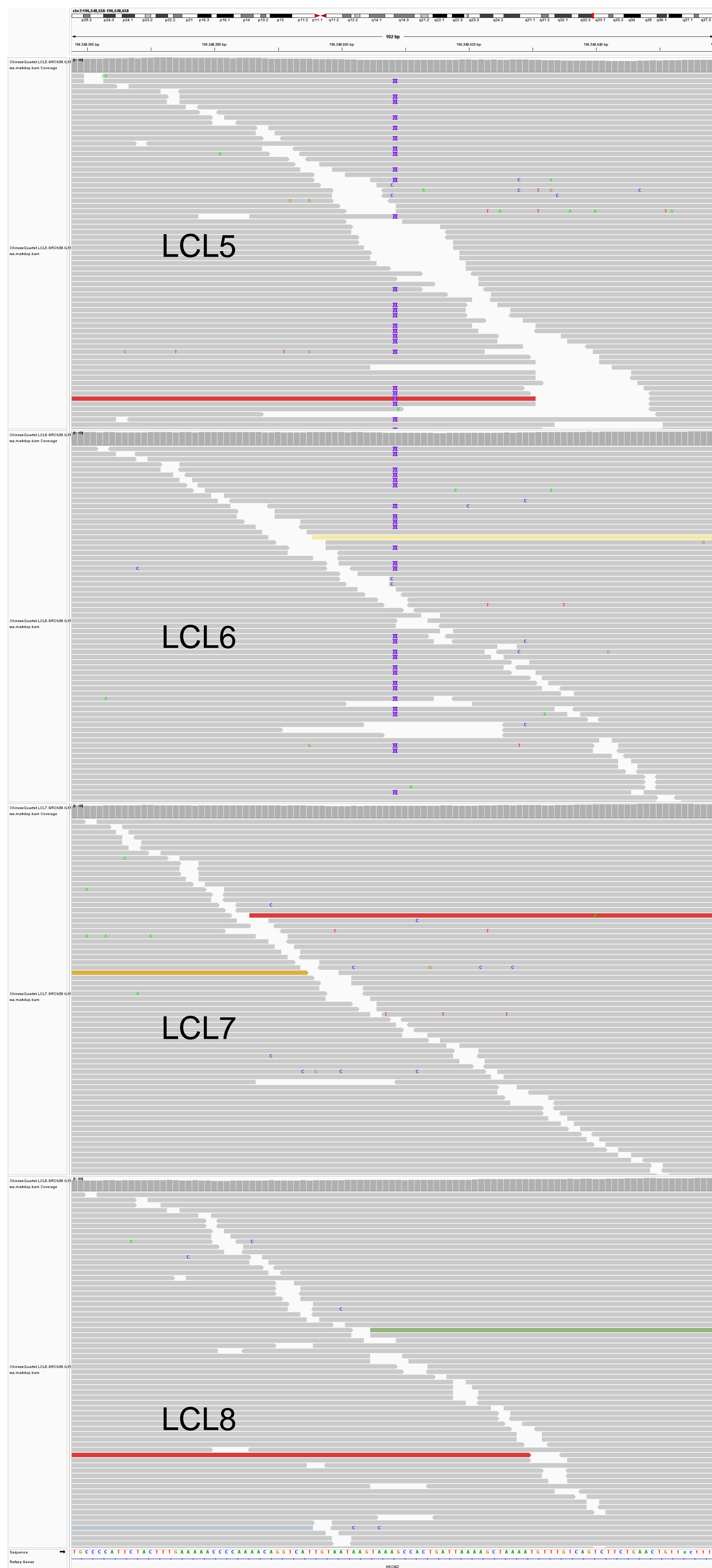


Illumina reads

# POS:chr2:196548608 Report DeNovo mutation by HiFi

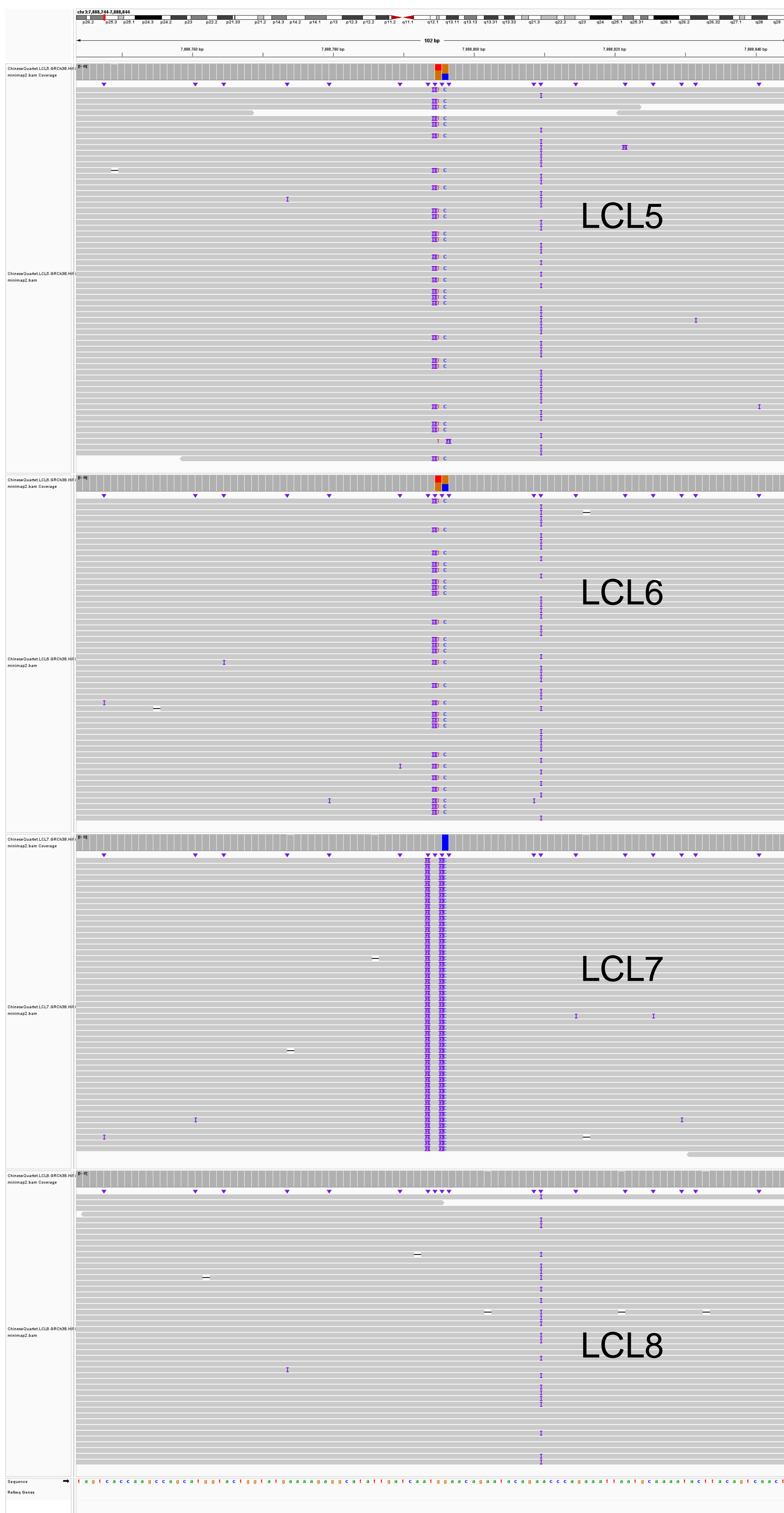


HiFi reads

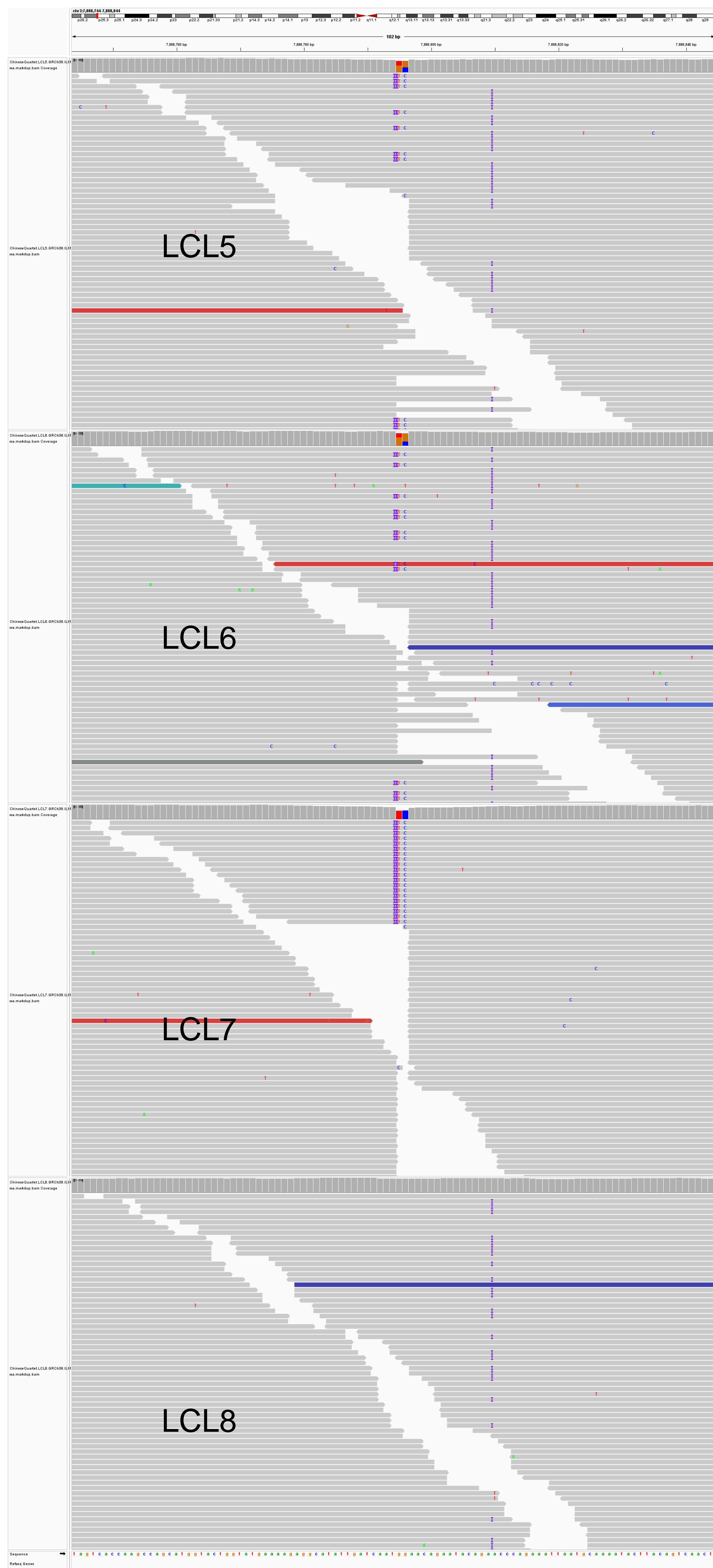


Illumina reads

# POS:chr3:7888794 Report DeNovo mutation by ILM



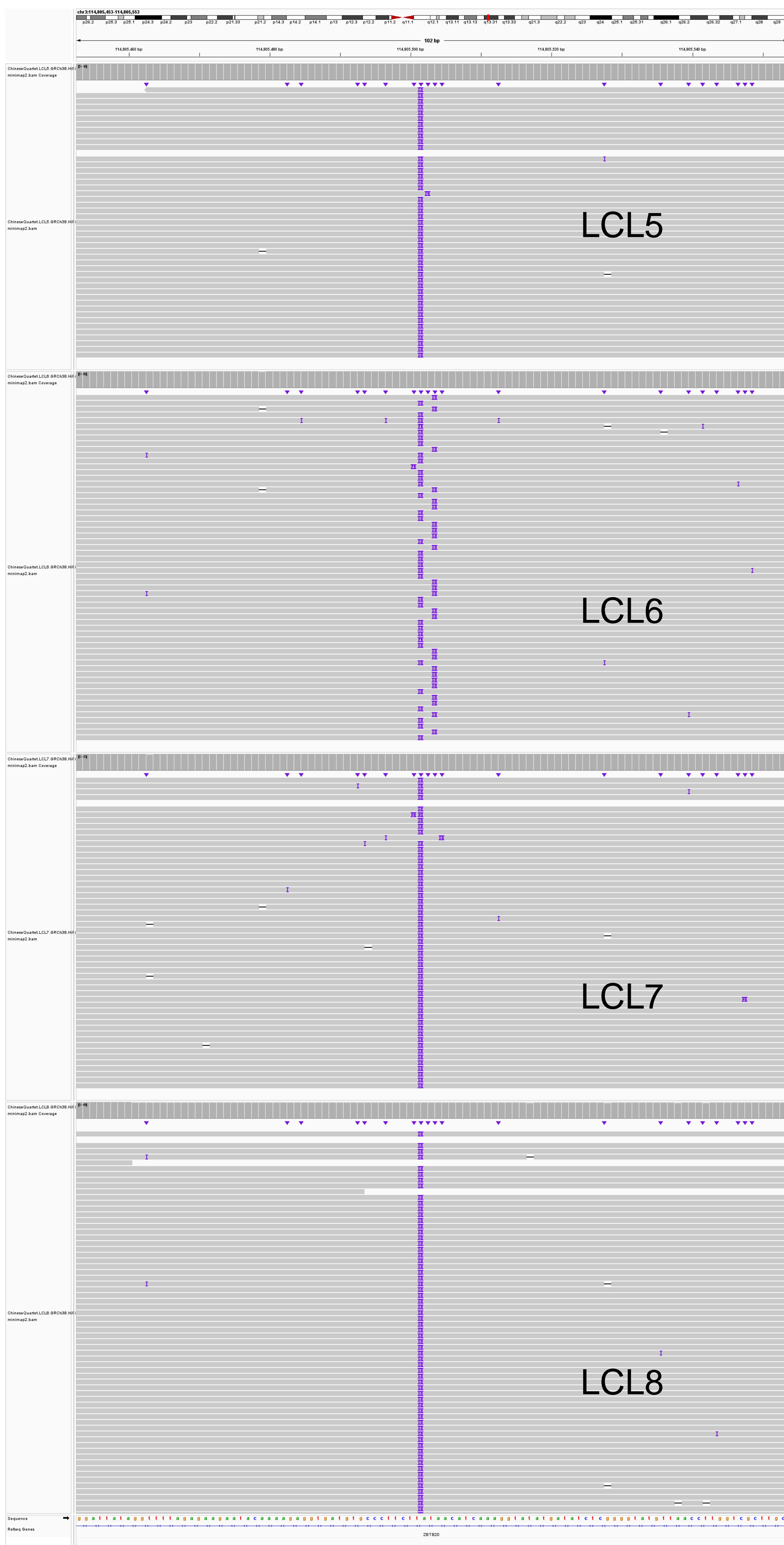
HiFi reads



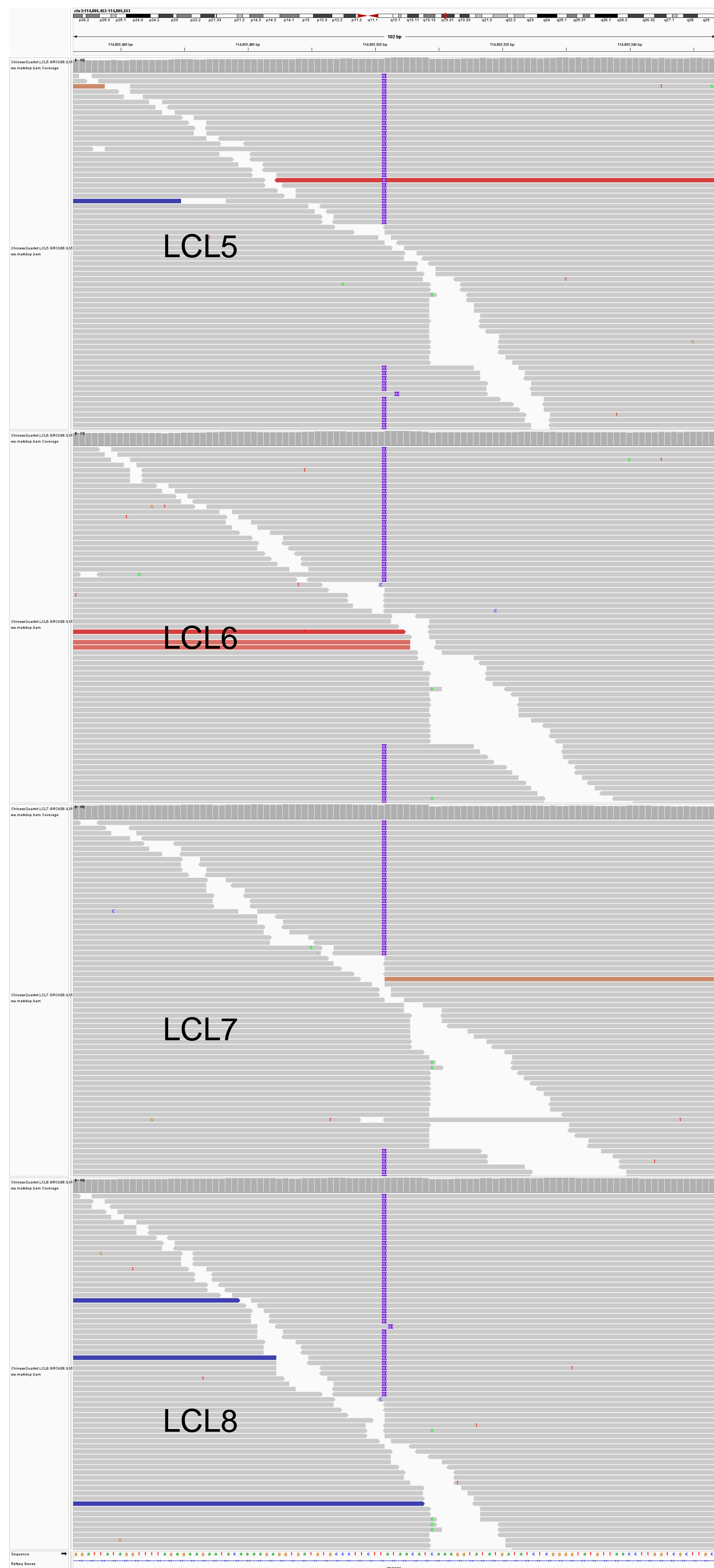
Illumina reads



# POS:chr3:114805503 Report Somatic mutation by HiFi

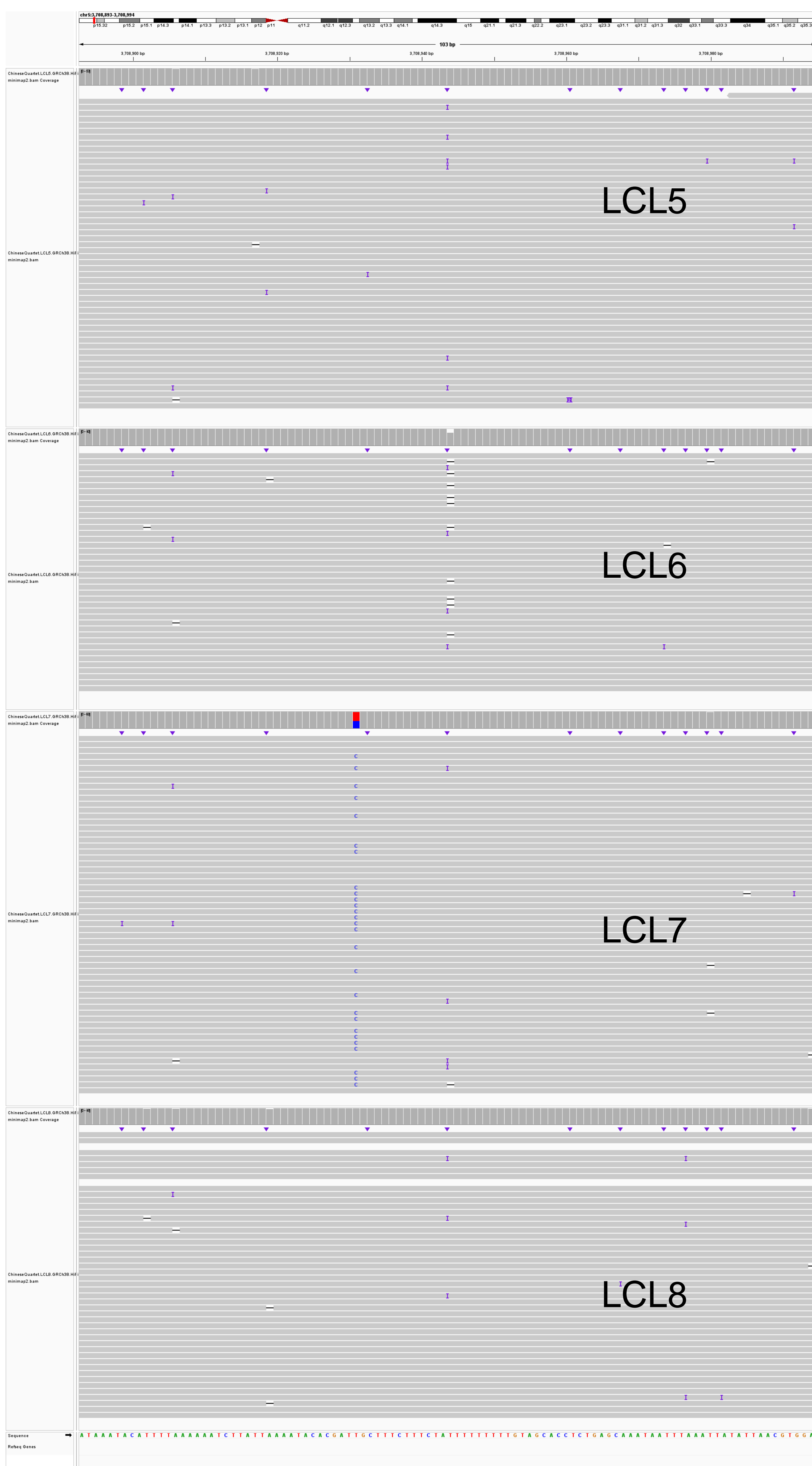


HiFi reads

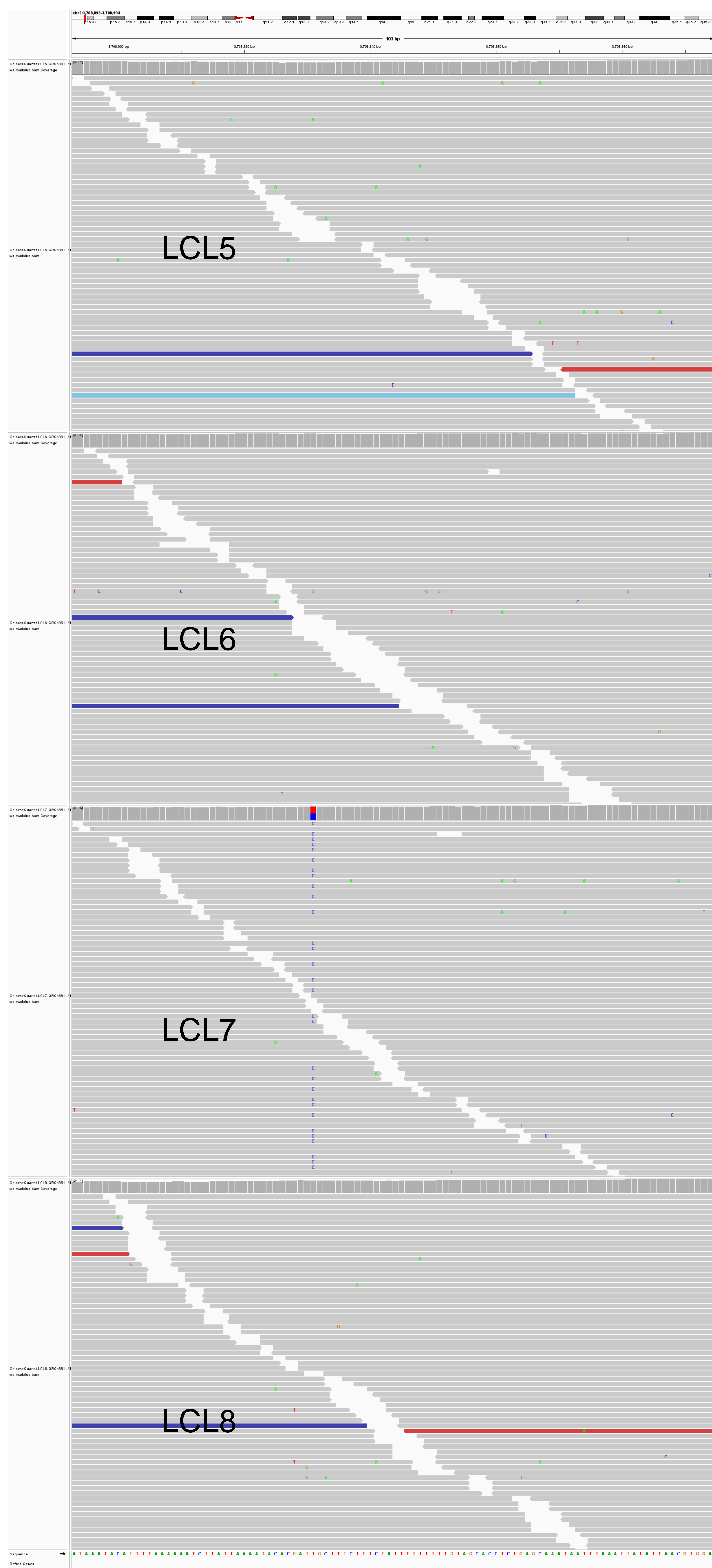


Illumina reads

# POS:chr5:3708943 Report Somatic mutation by HiFi

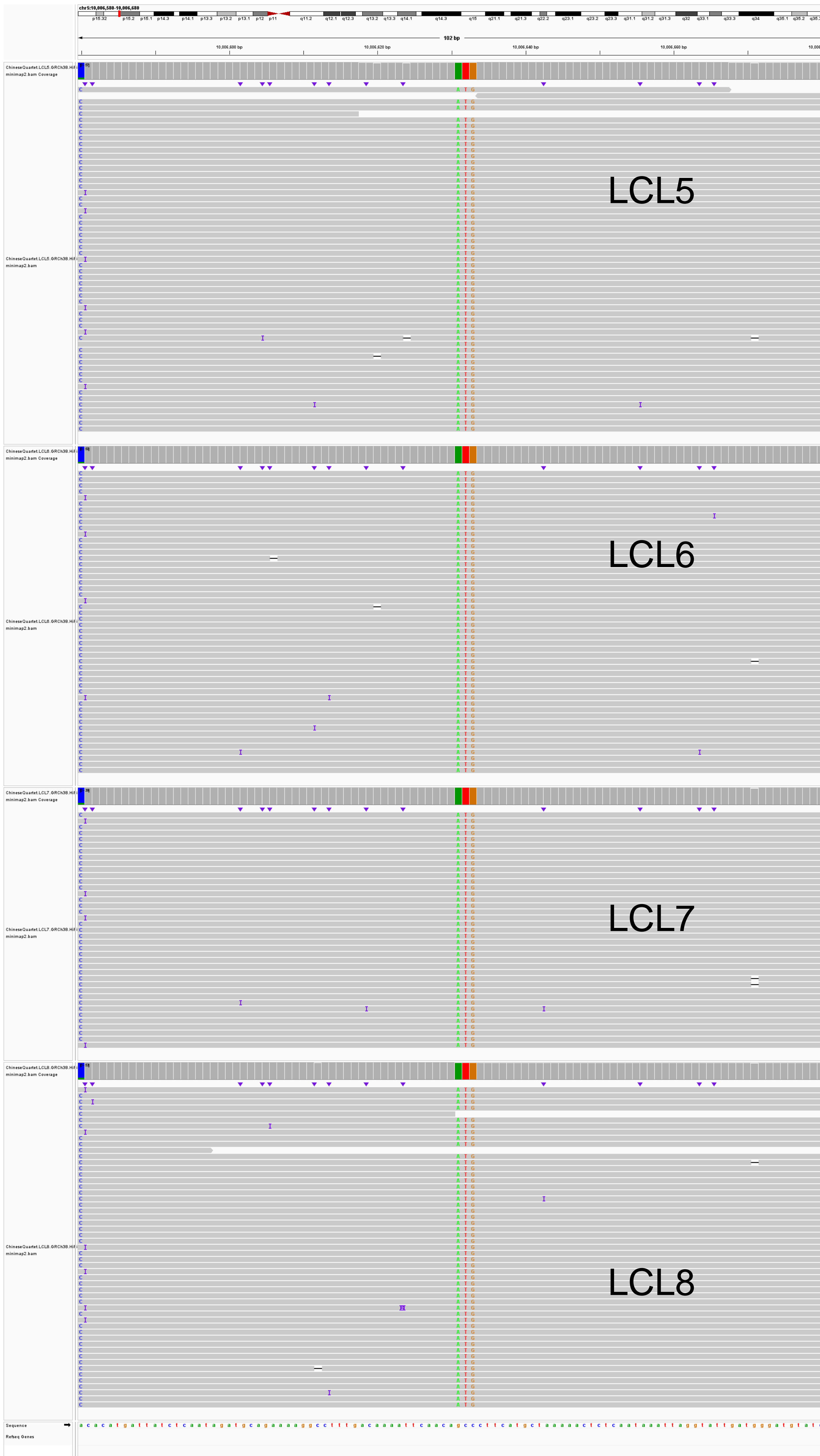


HiFi reads

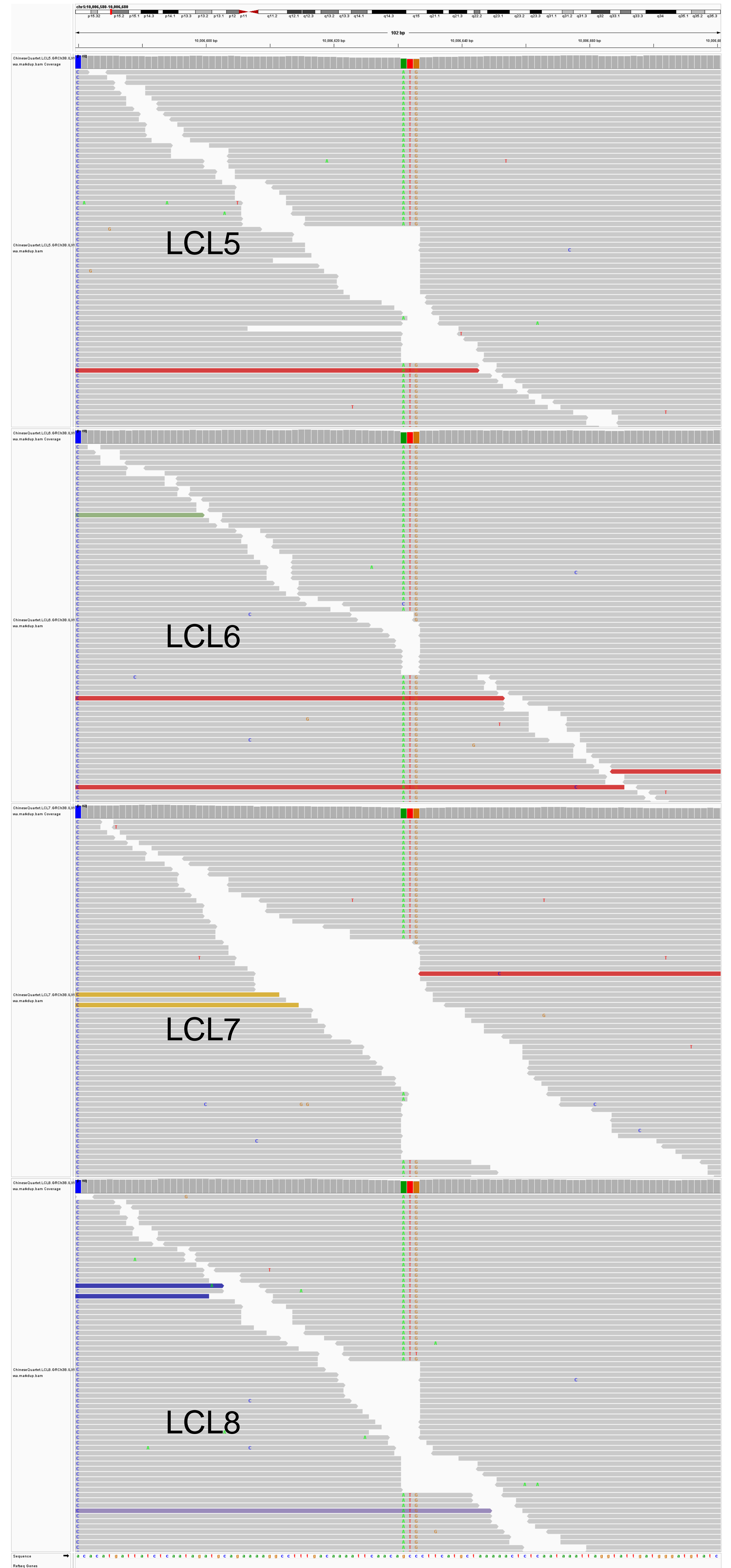


Illumina reads

# POS:chr5:10006630 Report DeNovo mutation by ILM



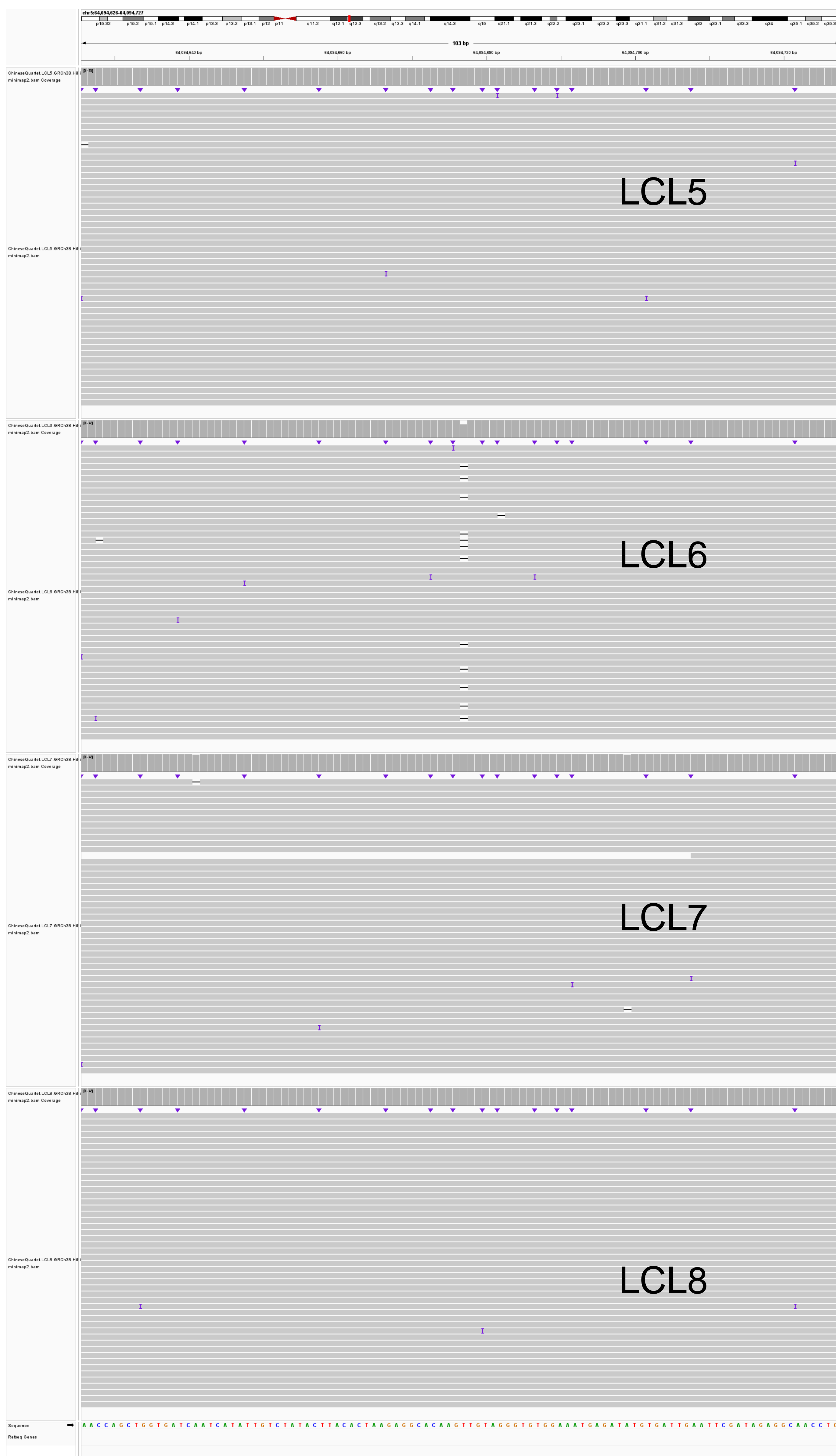
HiFi reads



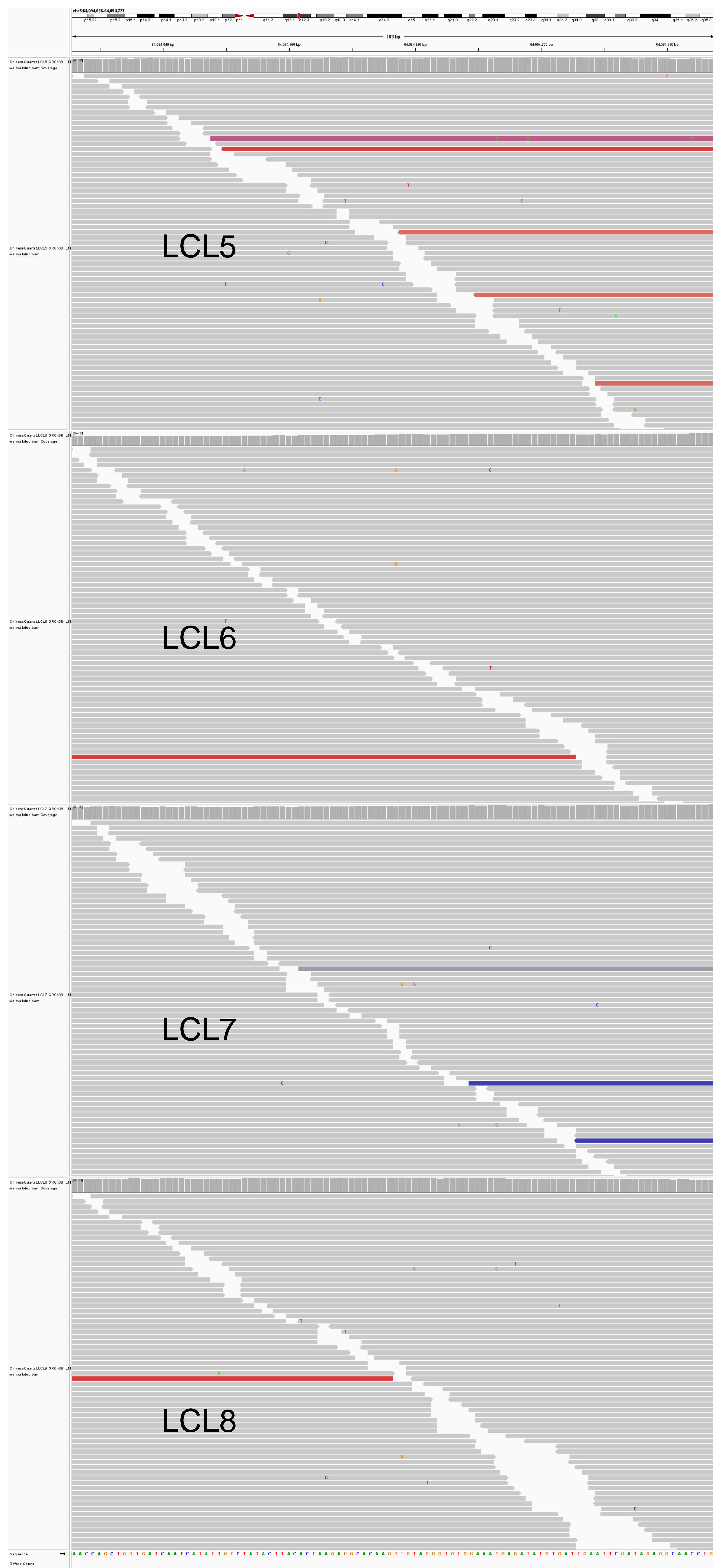
Illumina reads



# POS:chr5:64094676 Report Somatic mutation by HiFi



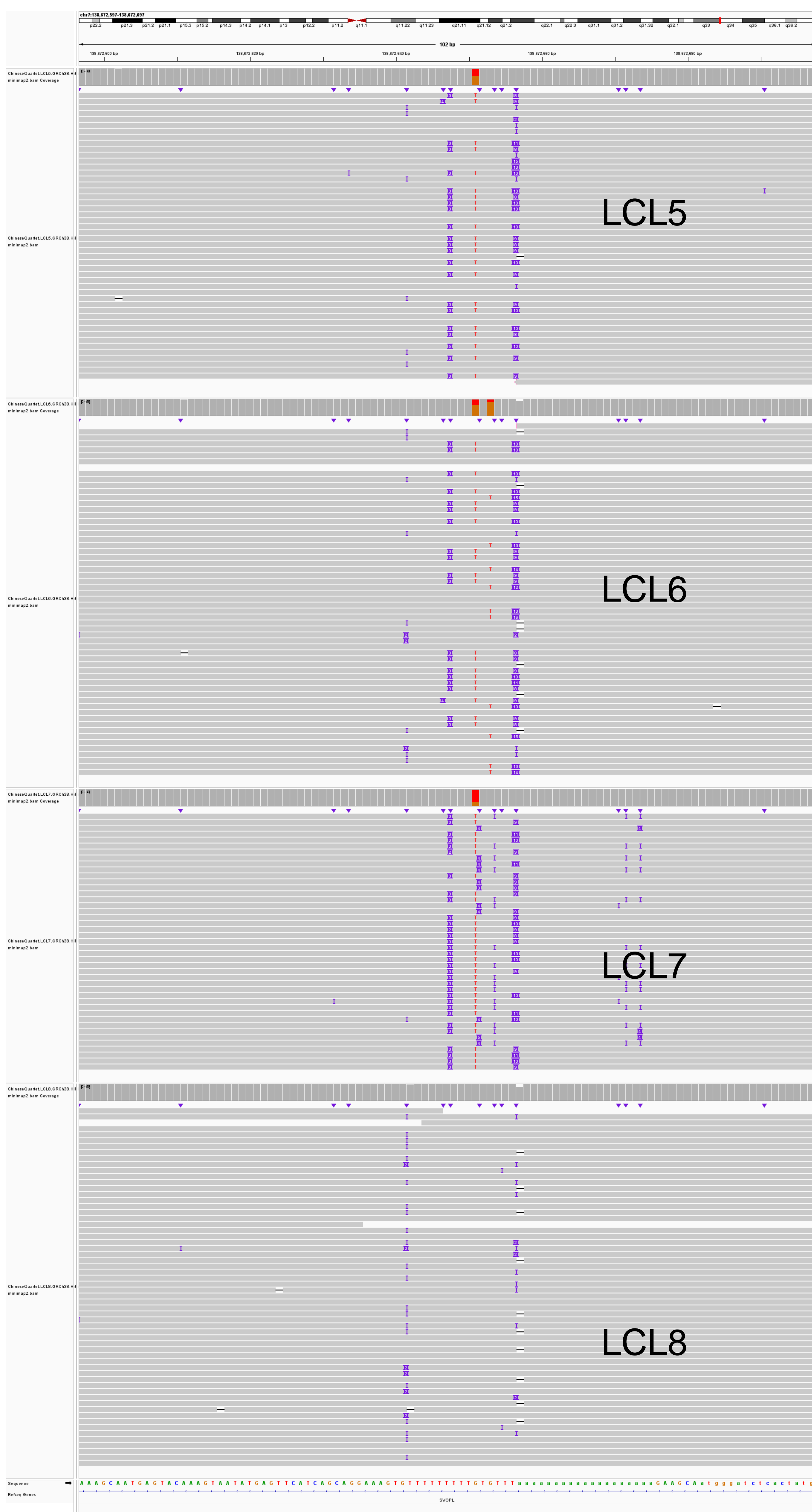
HiFi reads



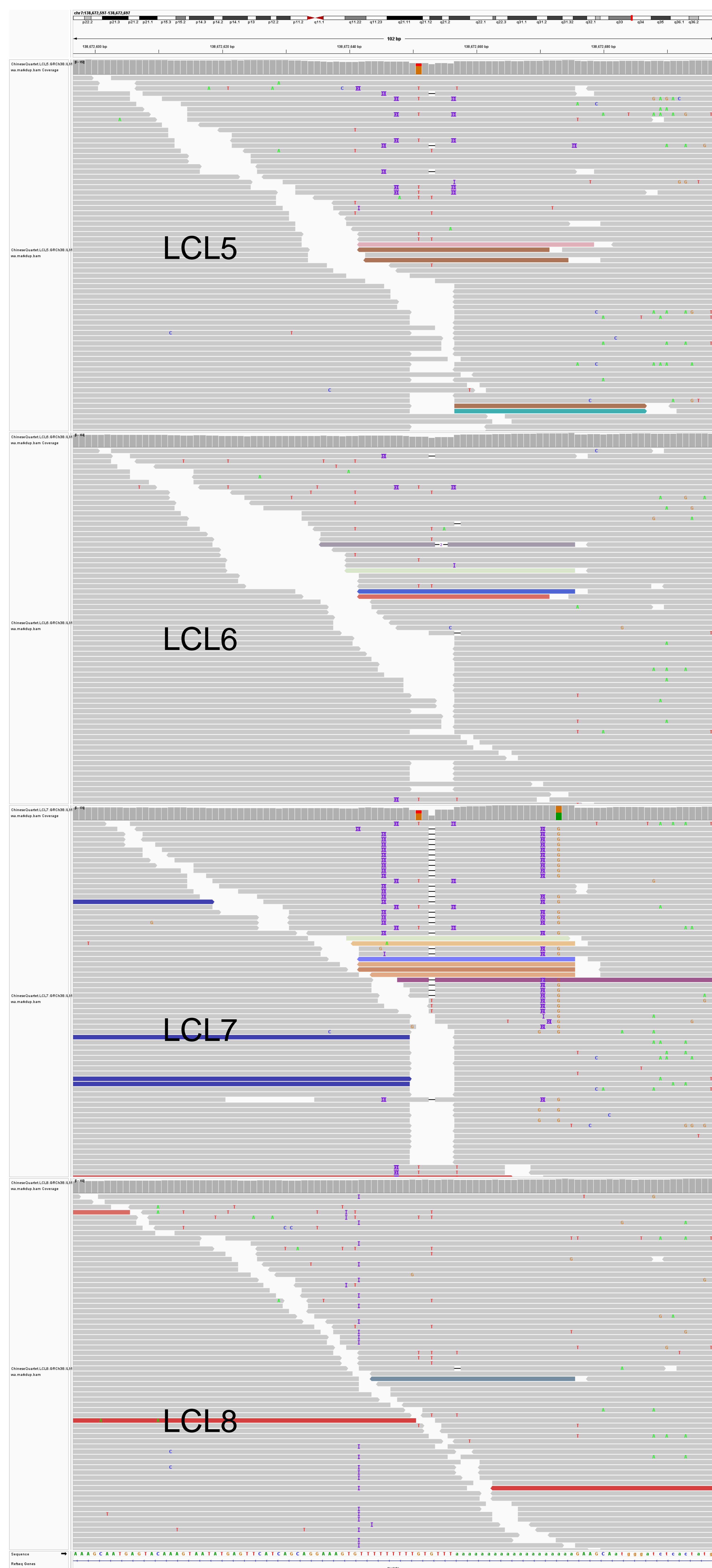
Illumina reads



# POS:chr7:138672647 Report DeNovo mutation by ILM



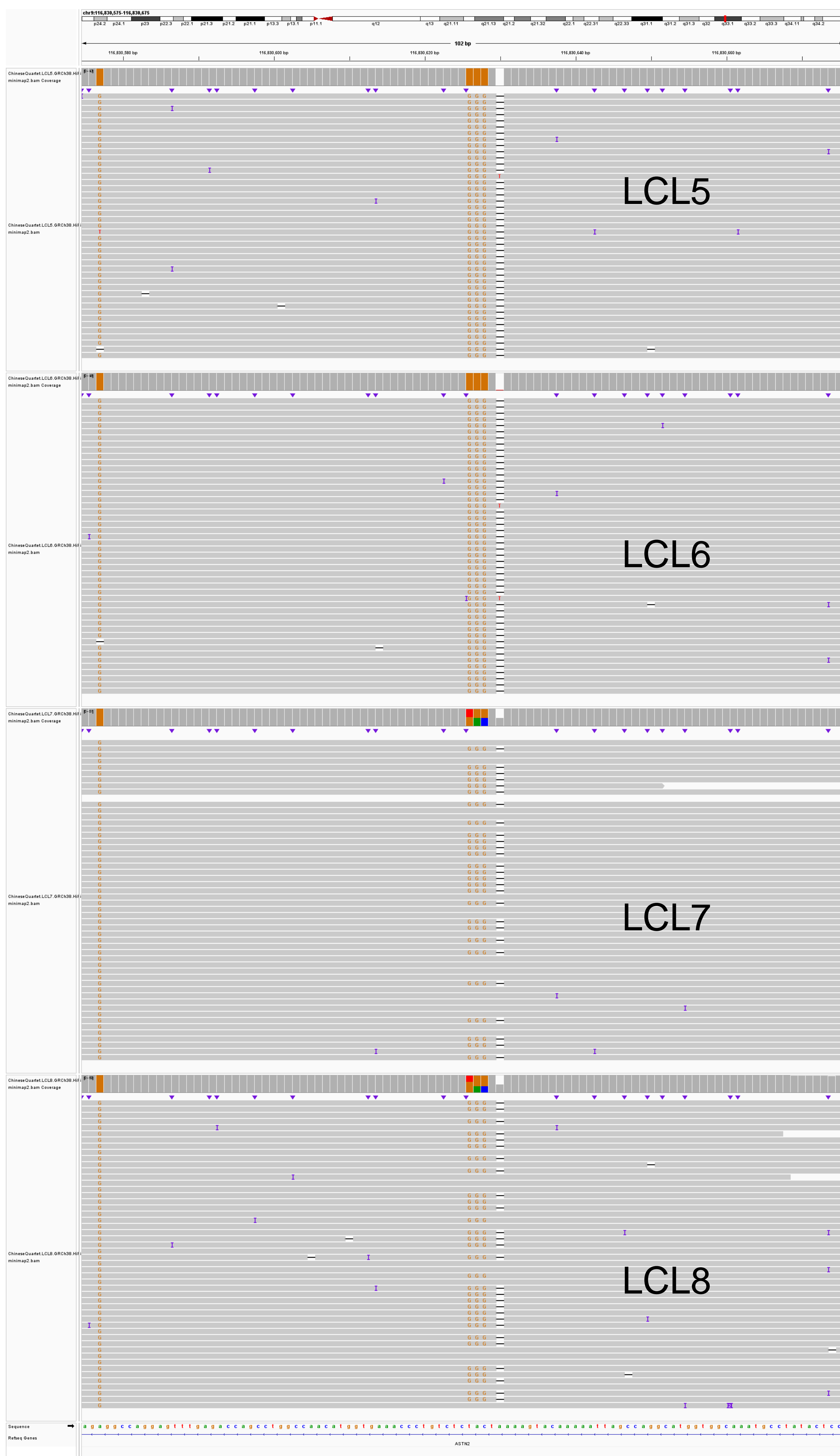
HiFi reads



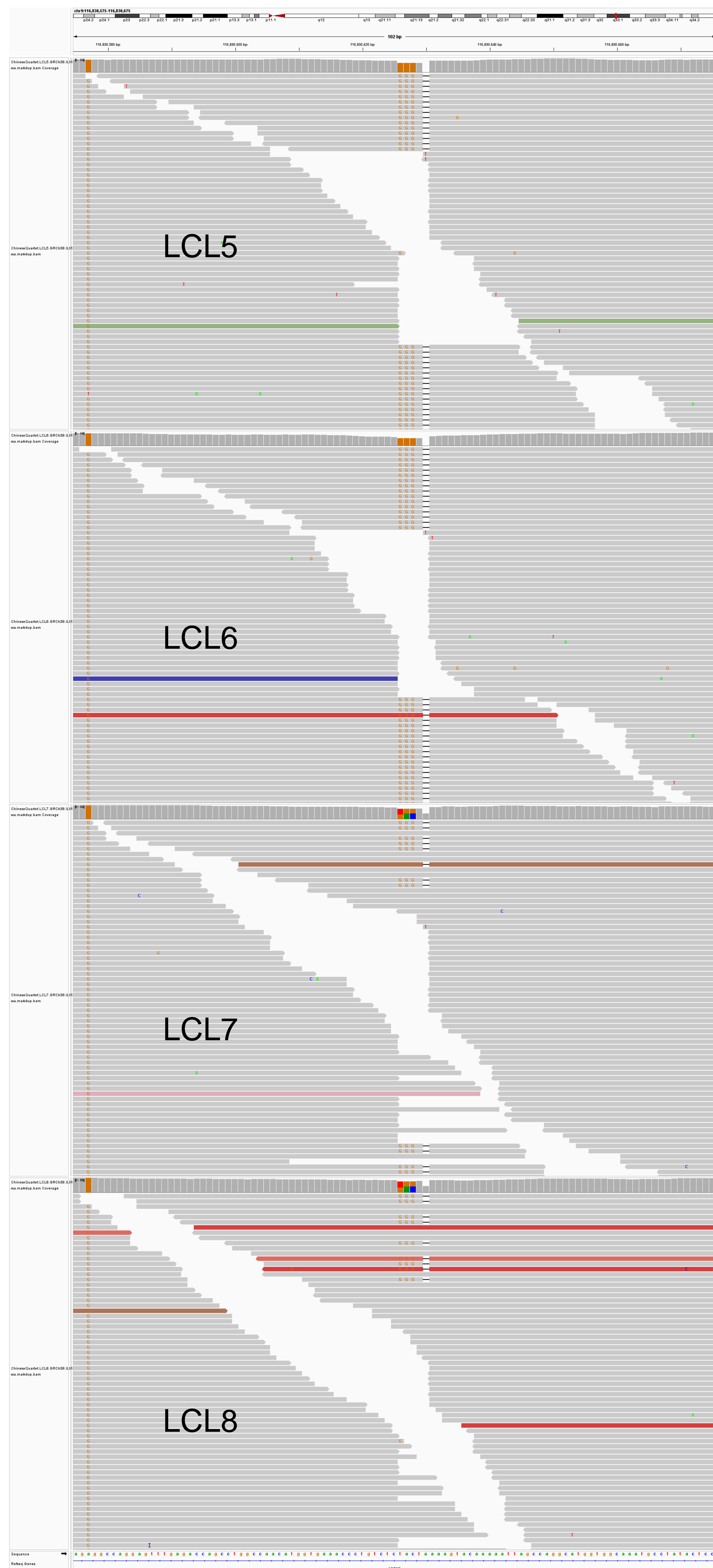
Illumina reads



# POS:chr9:116830625 Report DeNovo mutation by ILM



HiFi reads



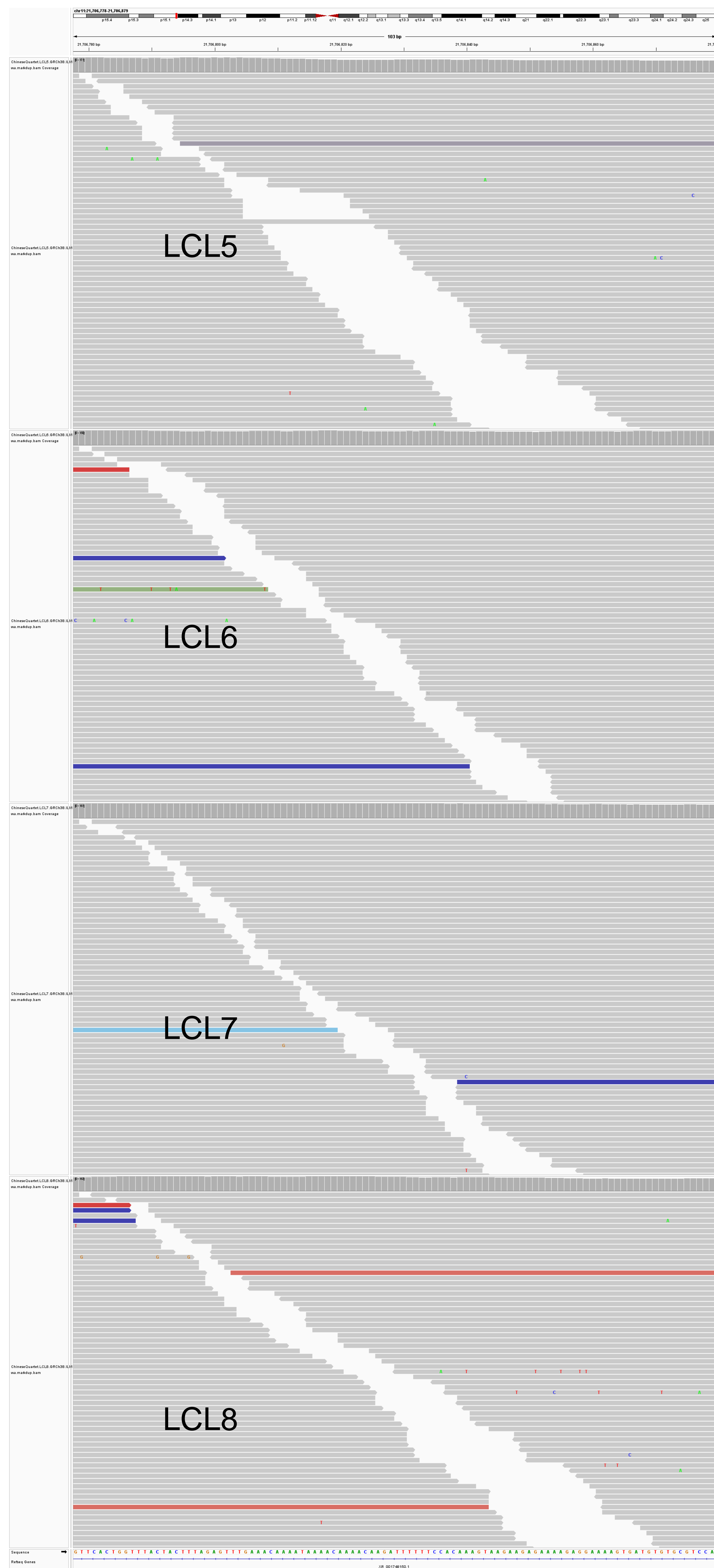
Illumina reads



# POS:chr11:21706828 Report Somatic mutation by HiFi



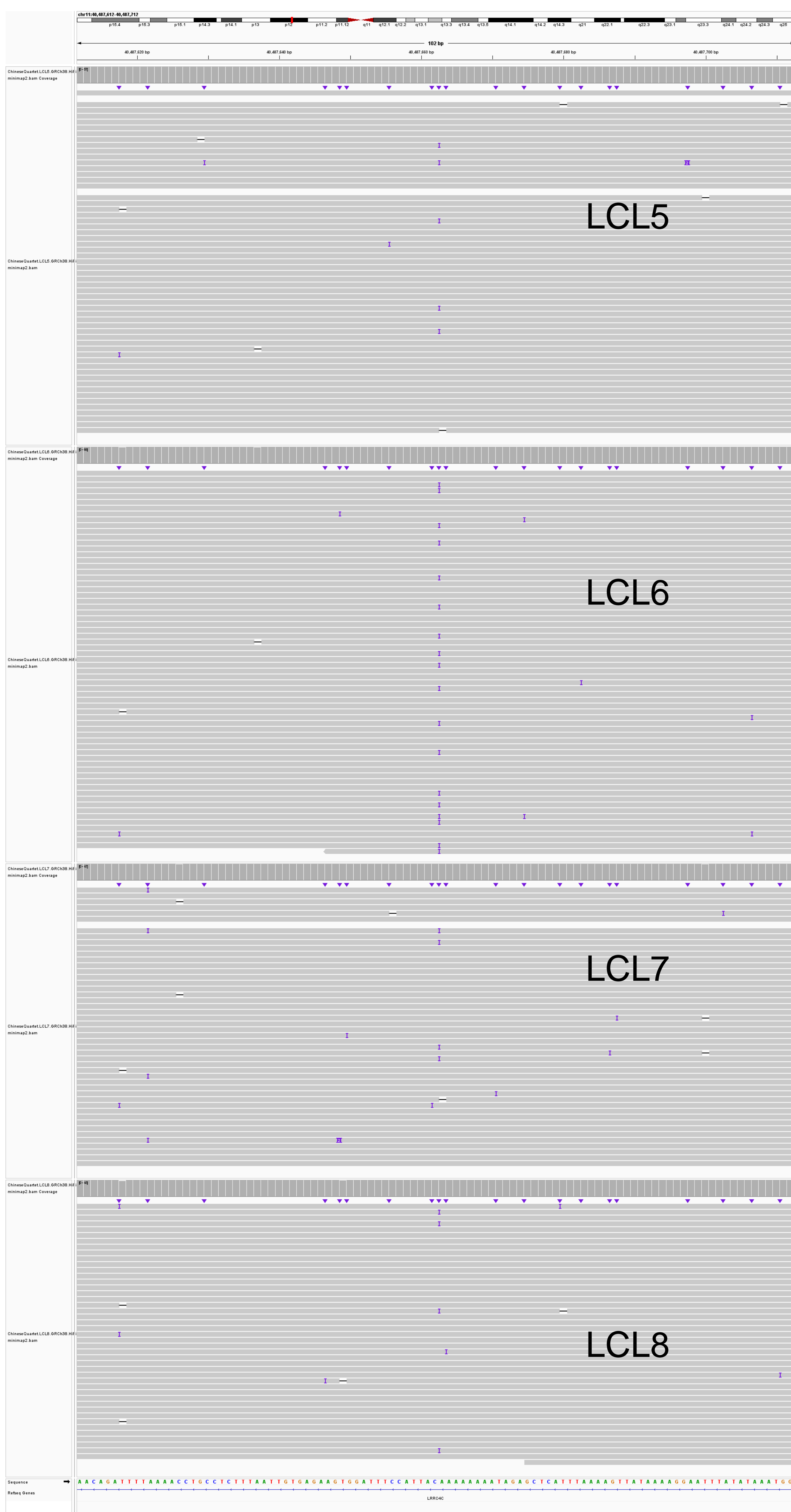
HiFi reads



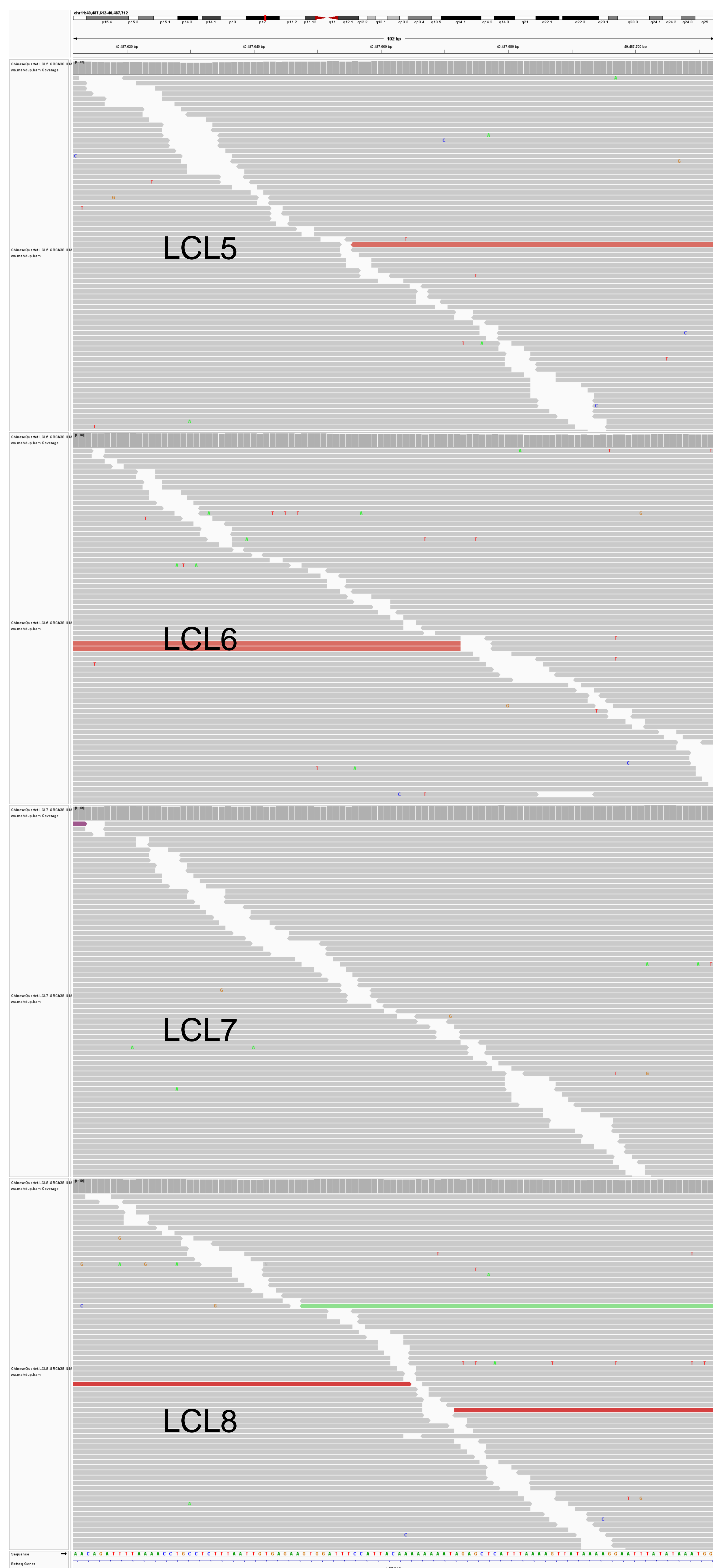
Illumina reads



# POS:chr11:40487662 Report Somatic mutation by HiFi

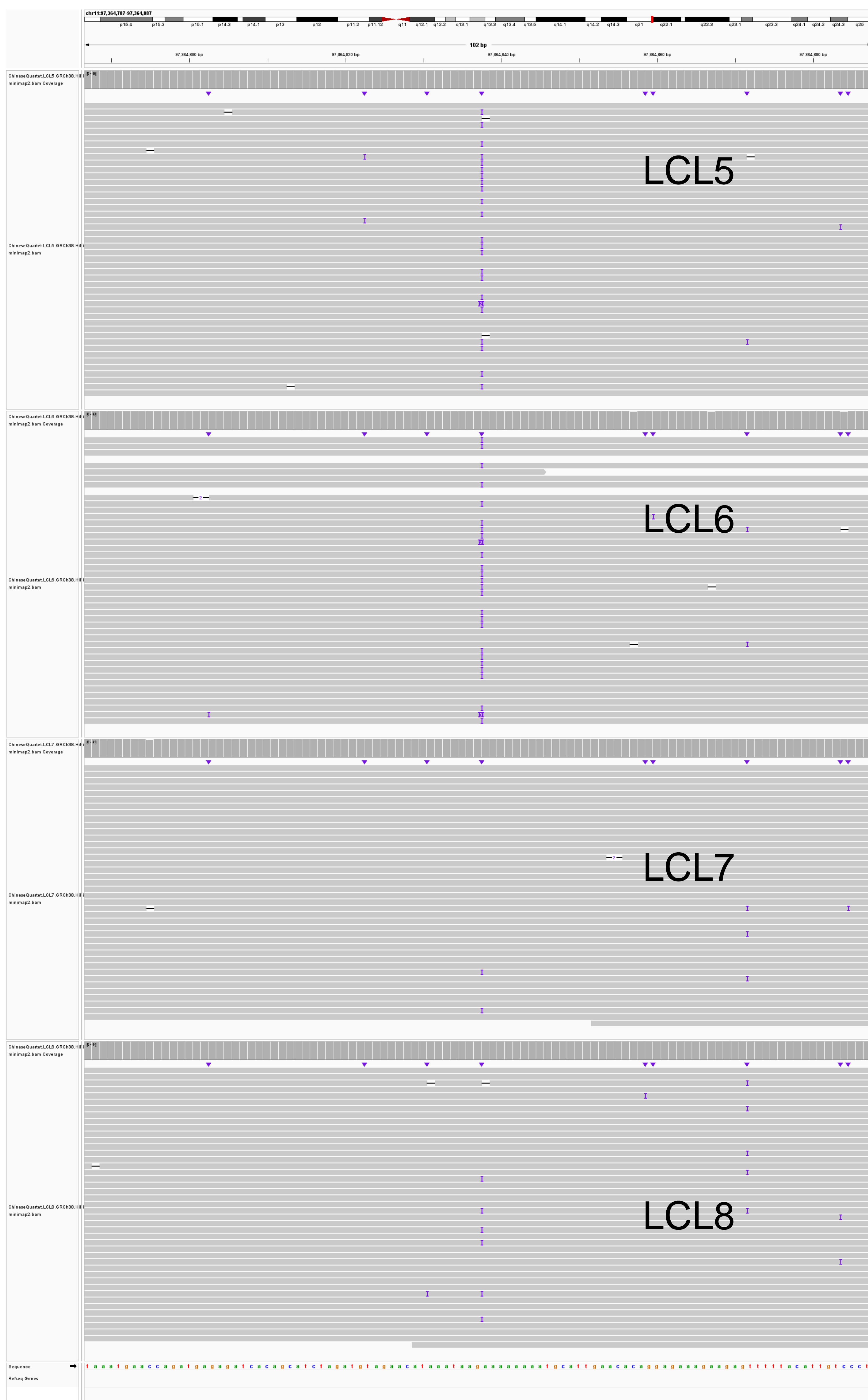


HiFi reads

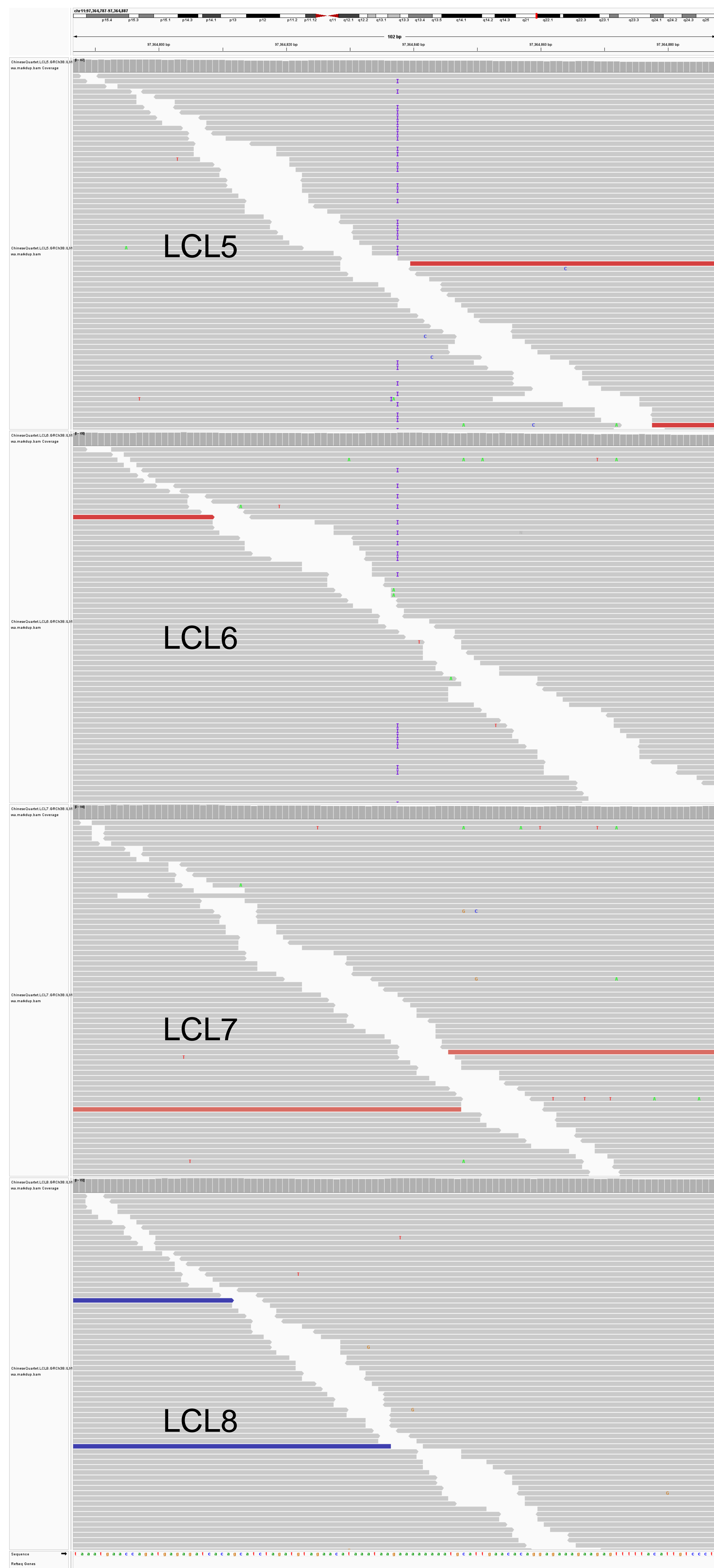


Illumina reads

# POS:chr11:97364837 Report DeNovo mutation by ILM

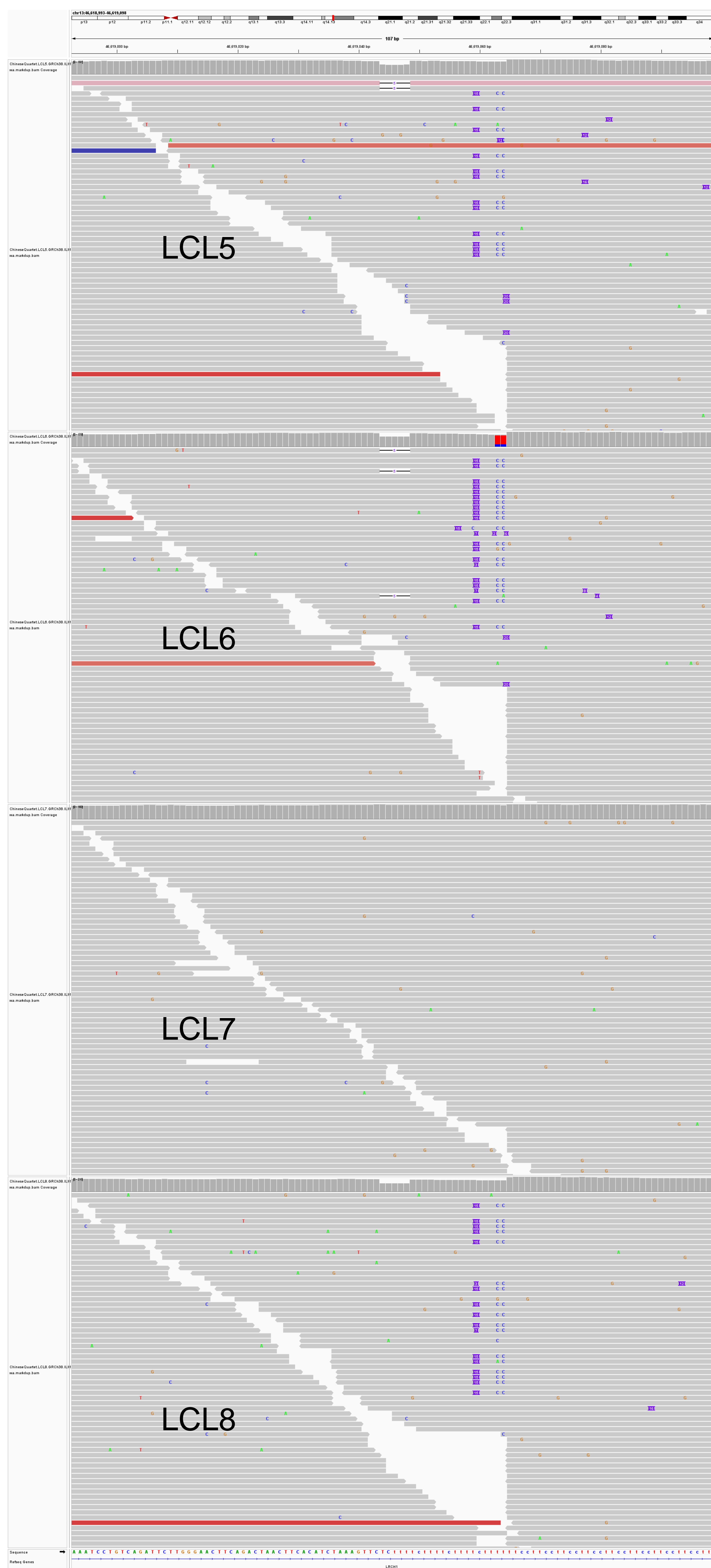
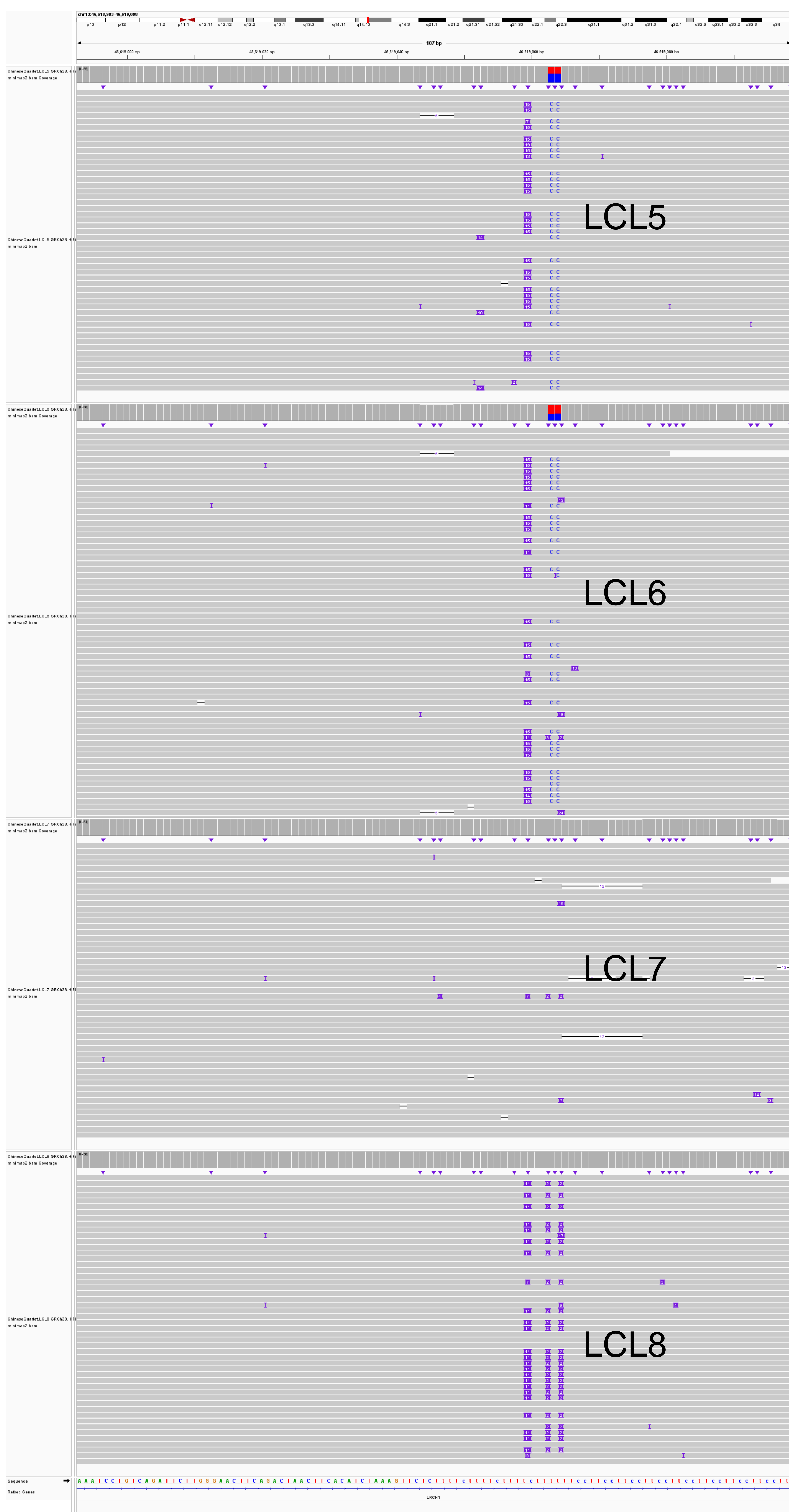


HiFi reads



Illumina reads

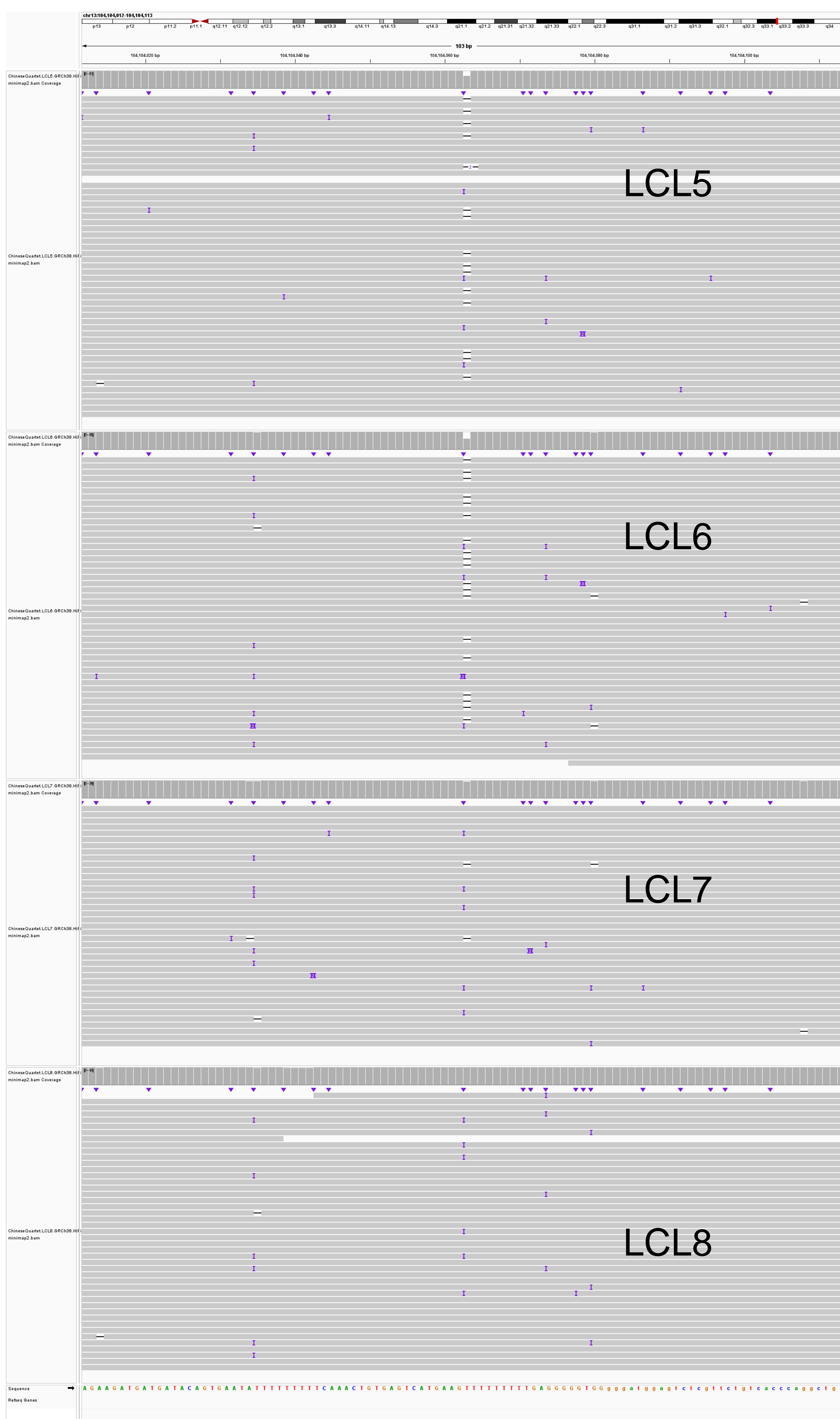
# POS:chr13:46619043 Report Somatic mutation by ILM



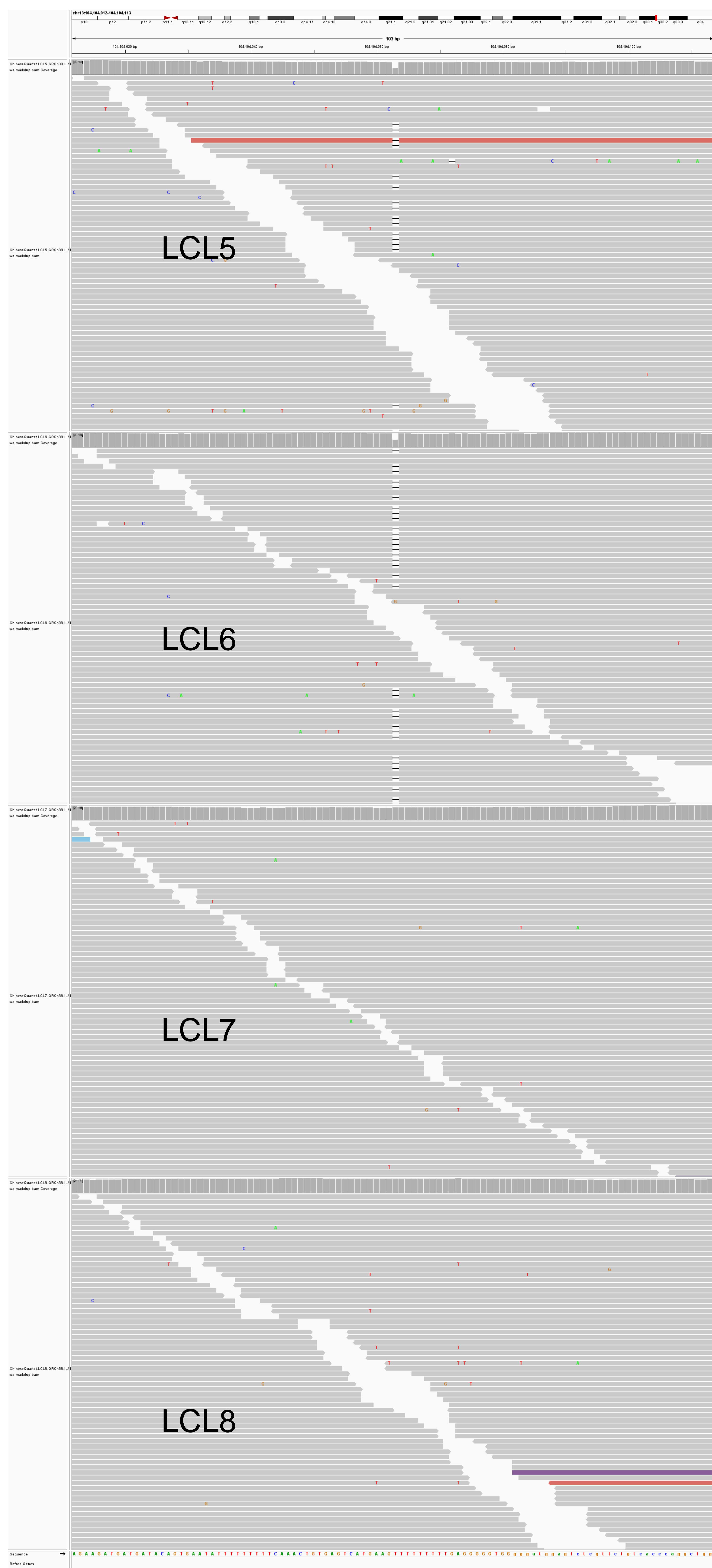
HiFi reads

Illumina reads

# POS:chr13:104104062 Report DeNovo mutation by ILM



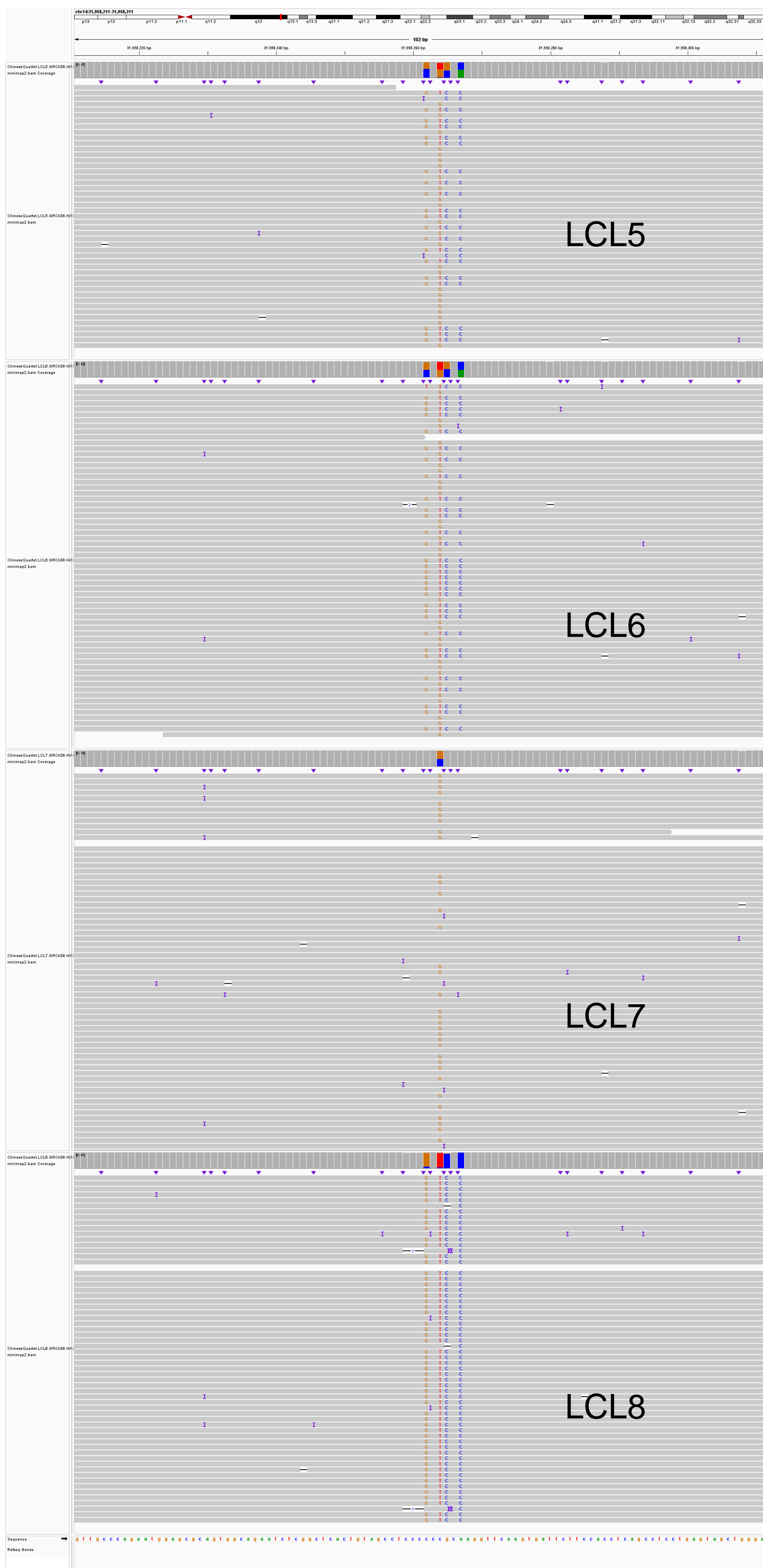
HiFi reads



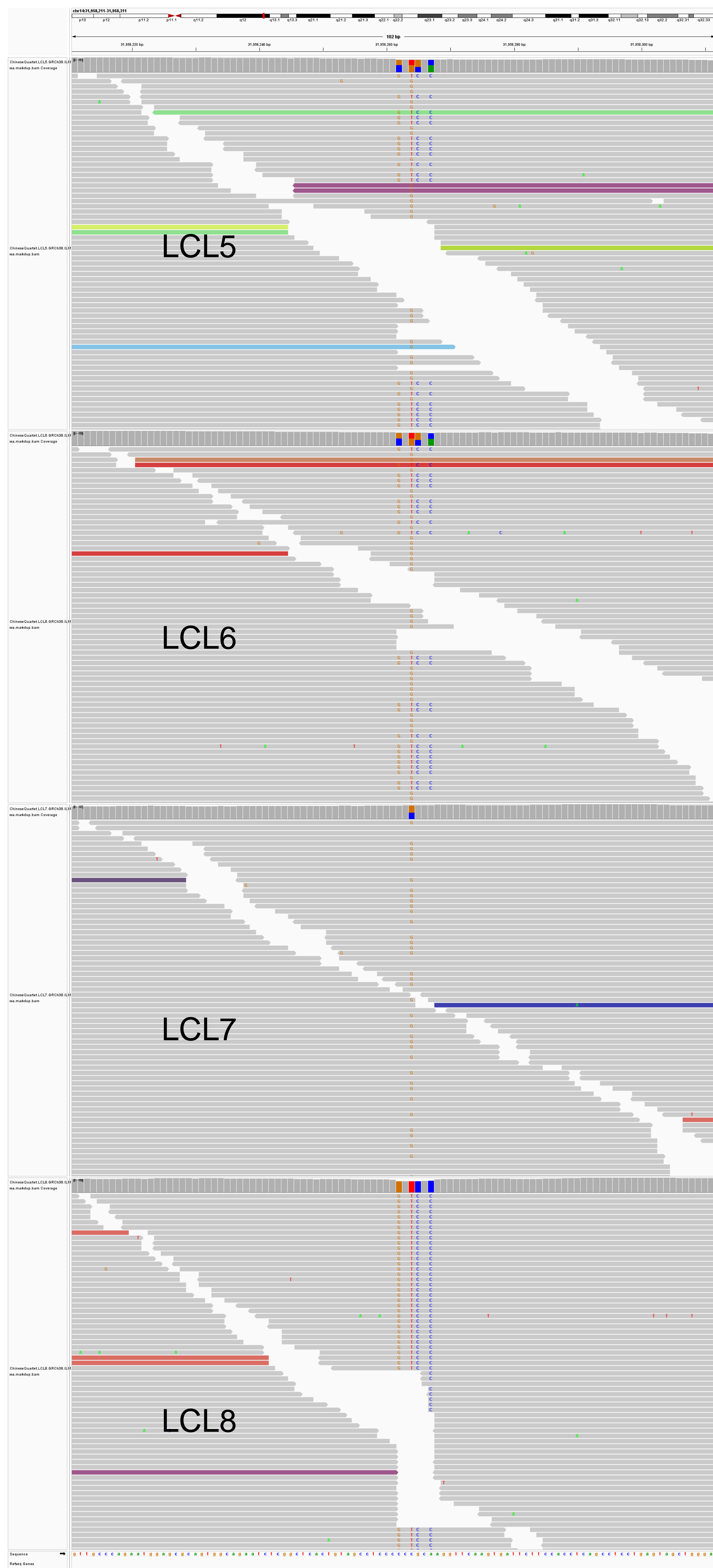
Illumina reads



# POS:chr14:31958261 Report Somatic mutation by ILM

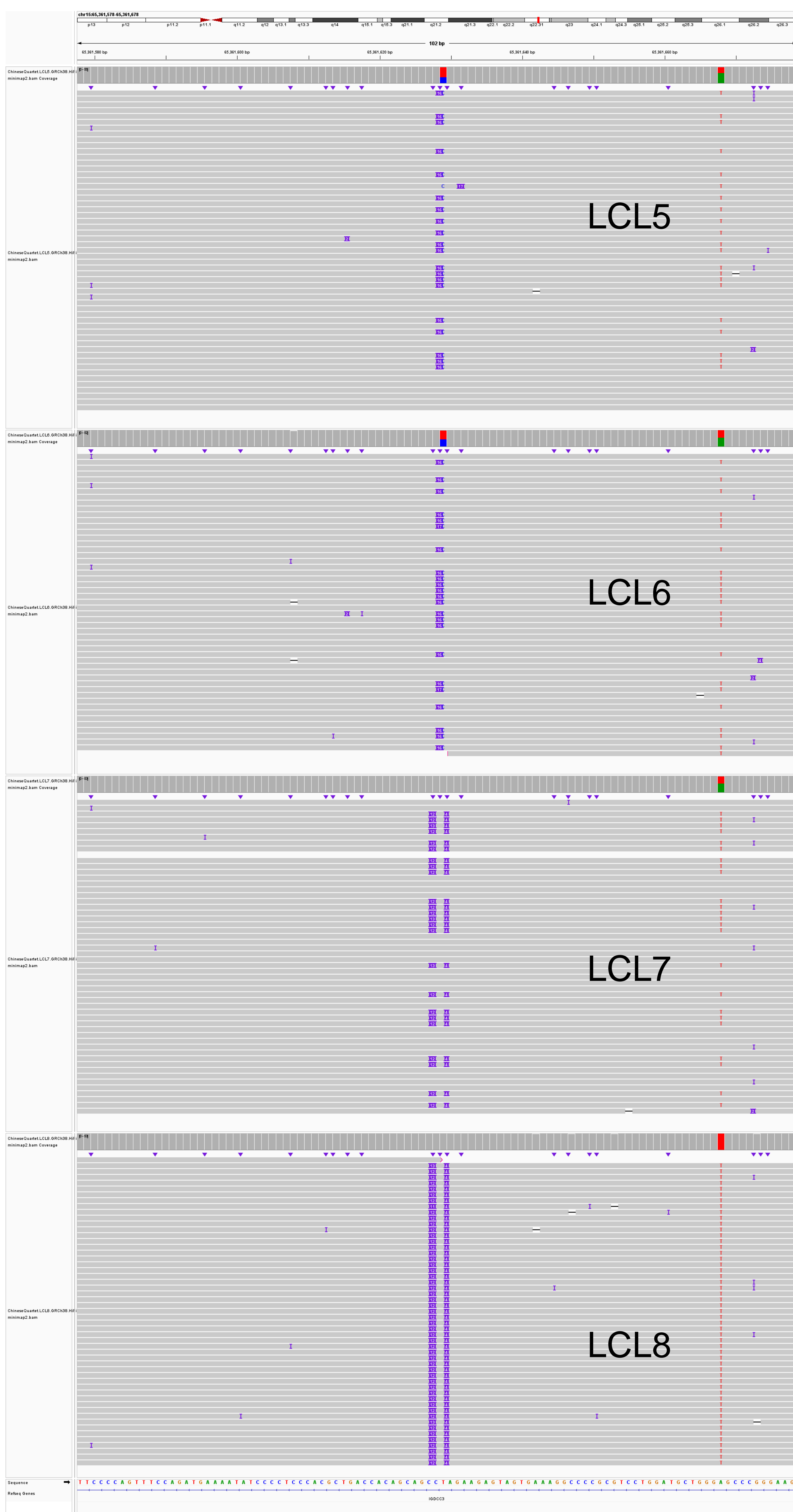


HiFi reads

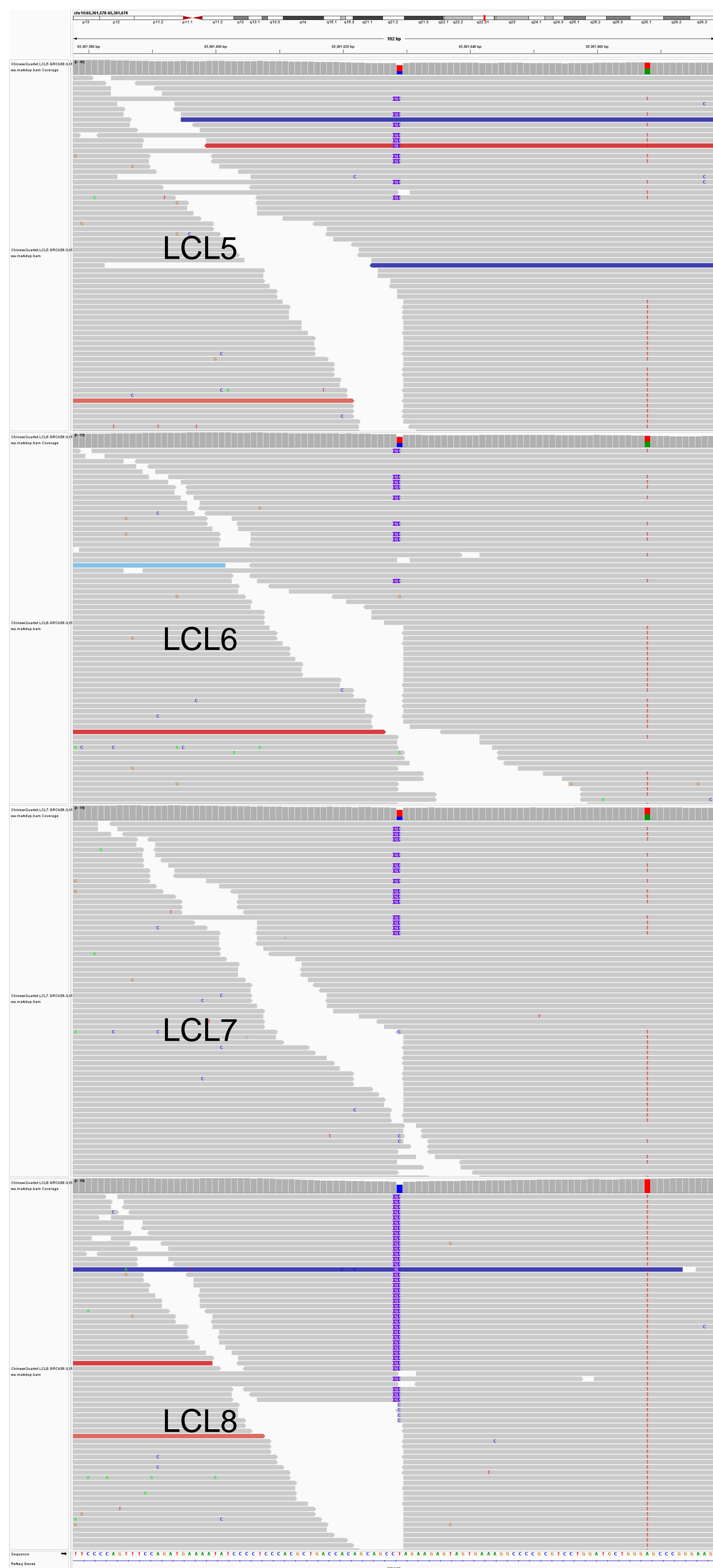


Illumina reads

# POS:chr15:65361628 Report Somatic mutation by ILM

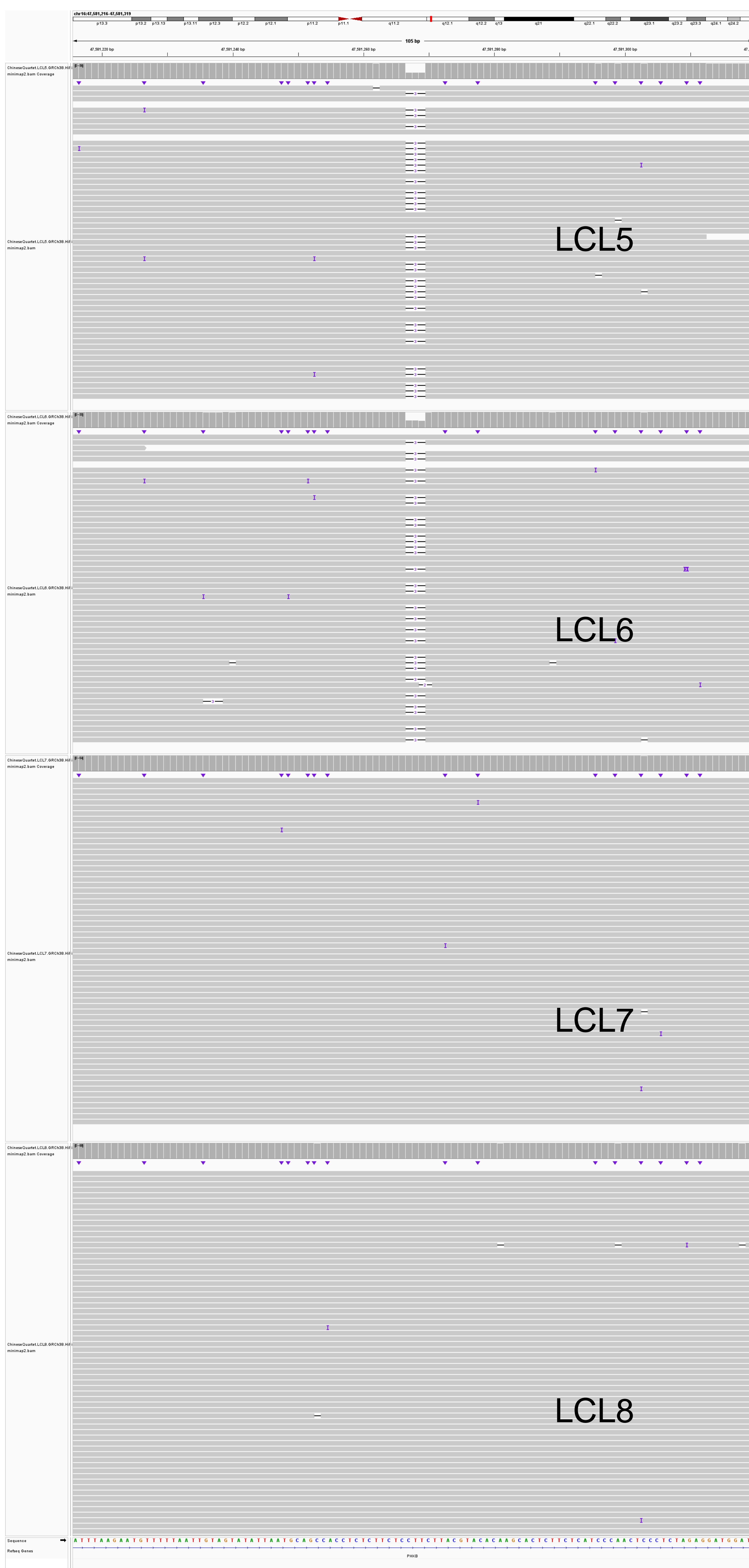


HiFi reads

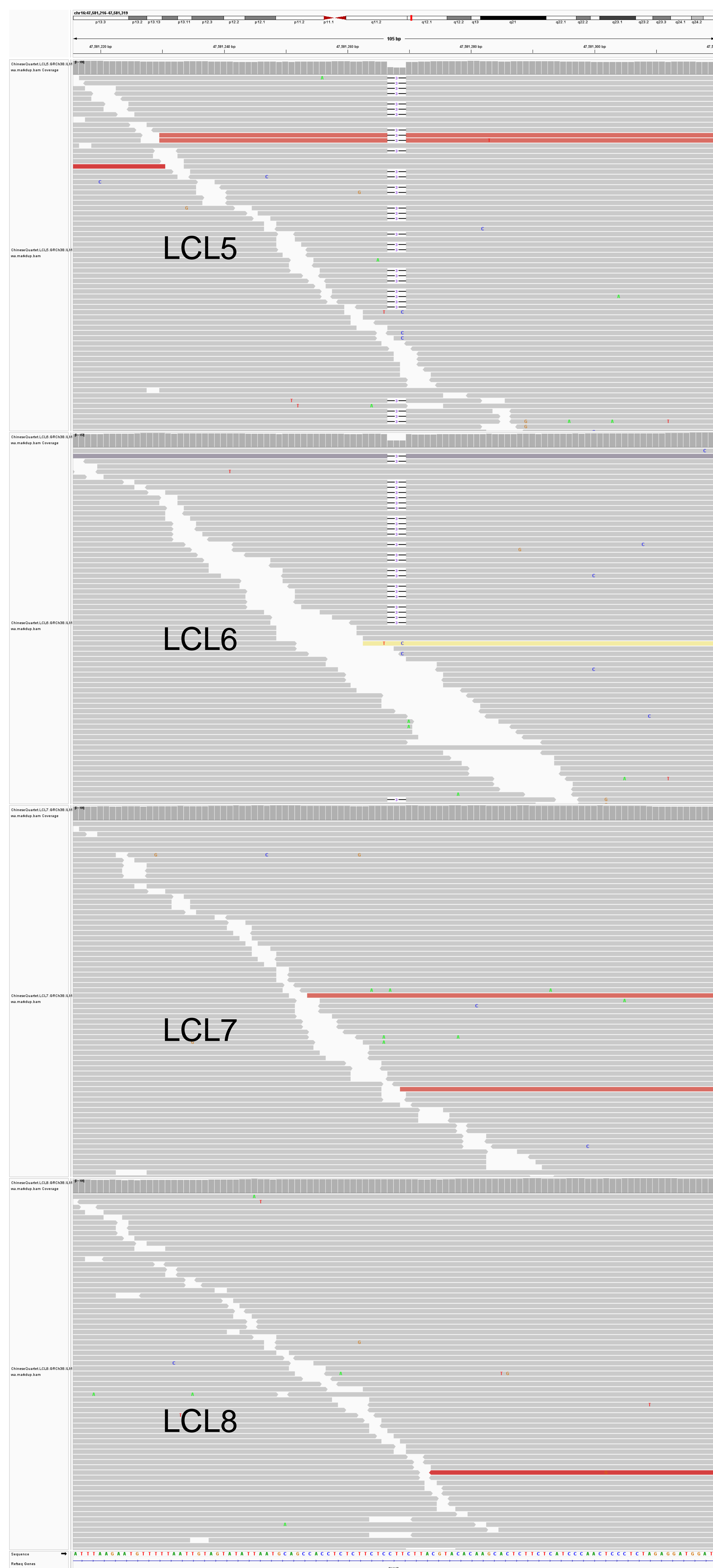


Illumina reads

# POS:chr16:47581266 Report DeNovo mutation by ILM



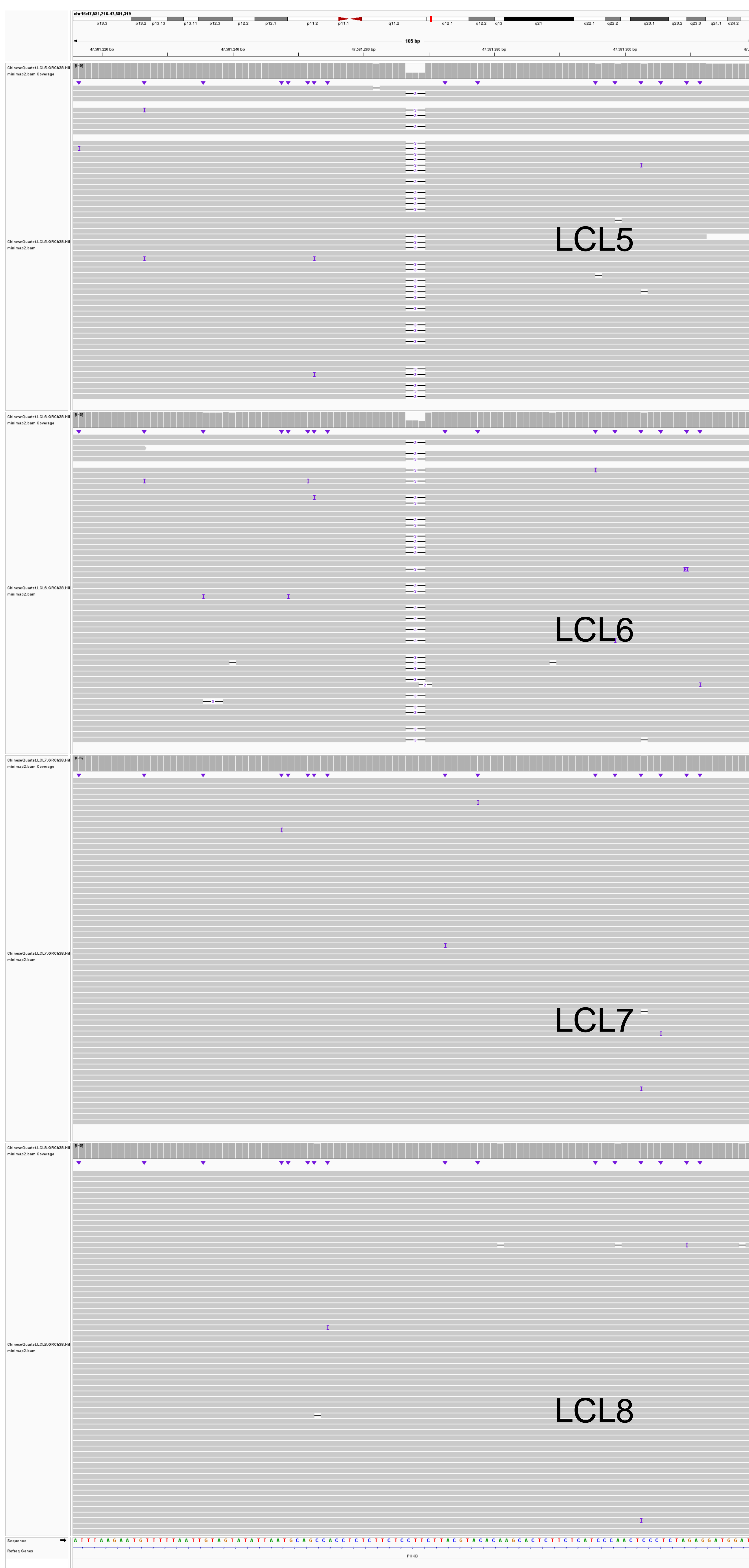
HiFi reads



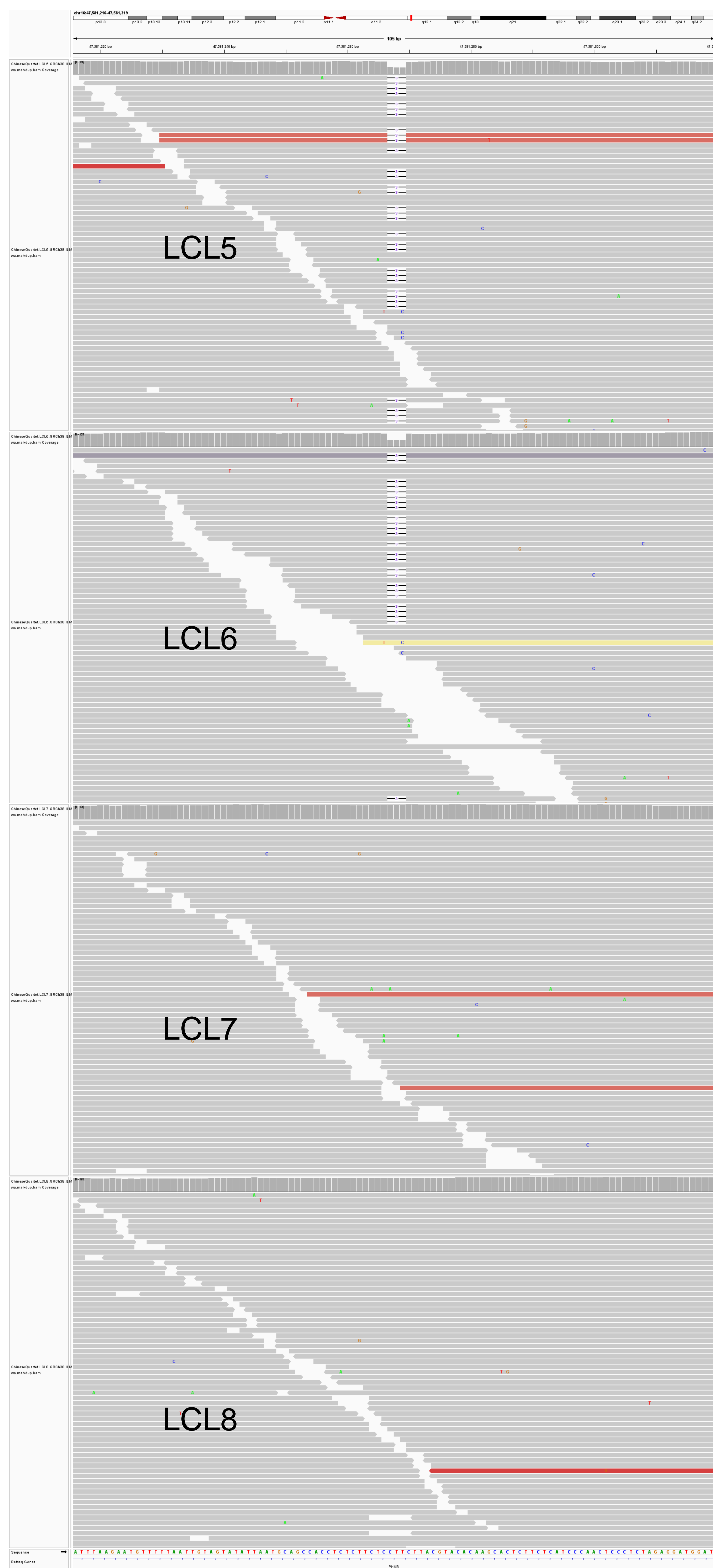
Illumina reads



# POS:chr16:47581266 Report DeNovo mutation by HiFi



HiFi reads



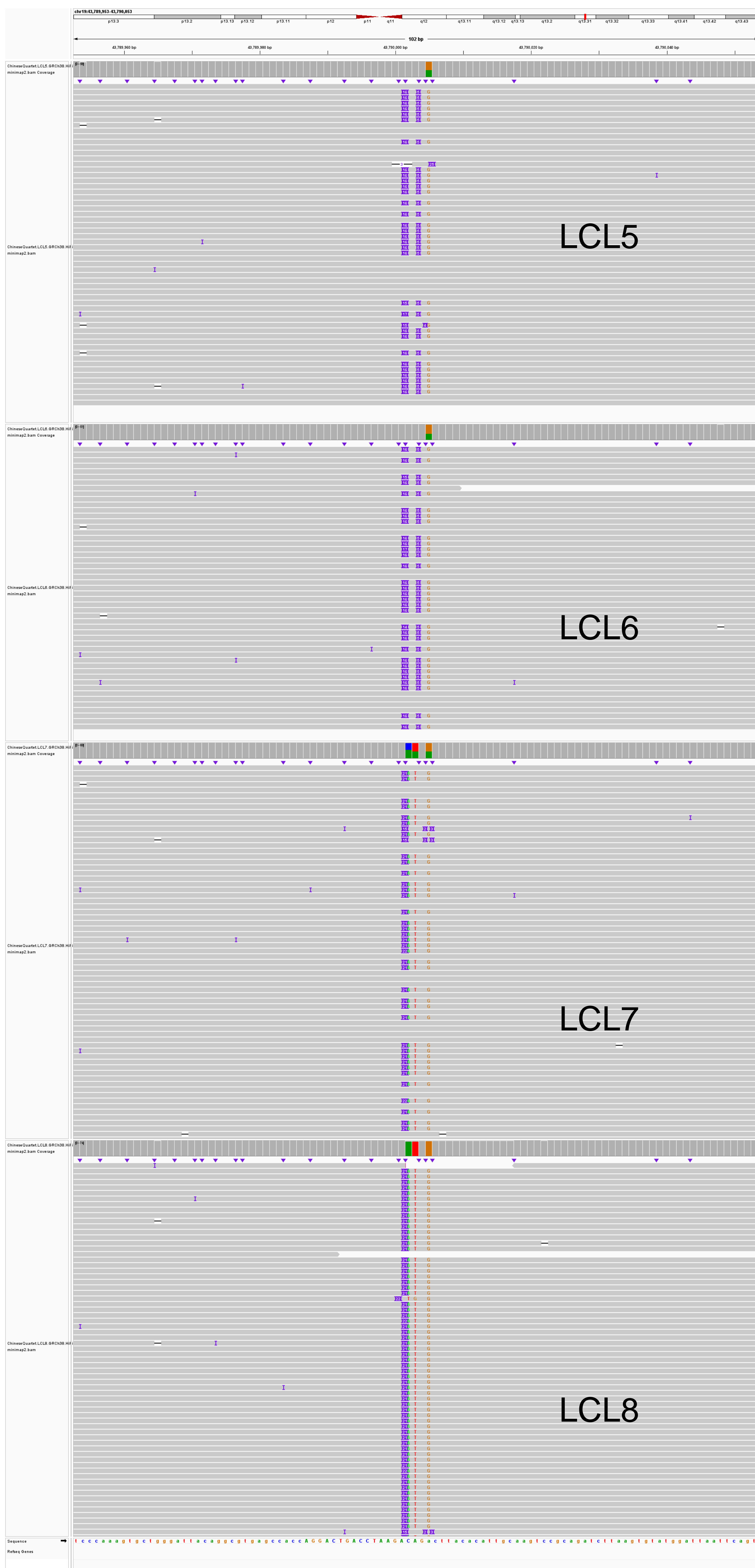
Illumina reads



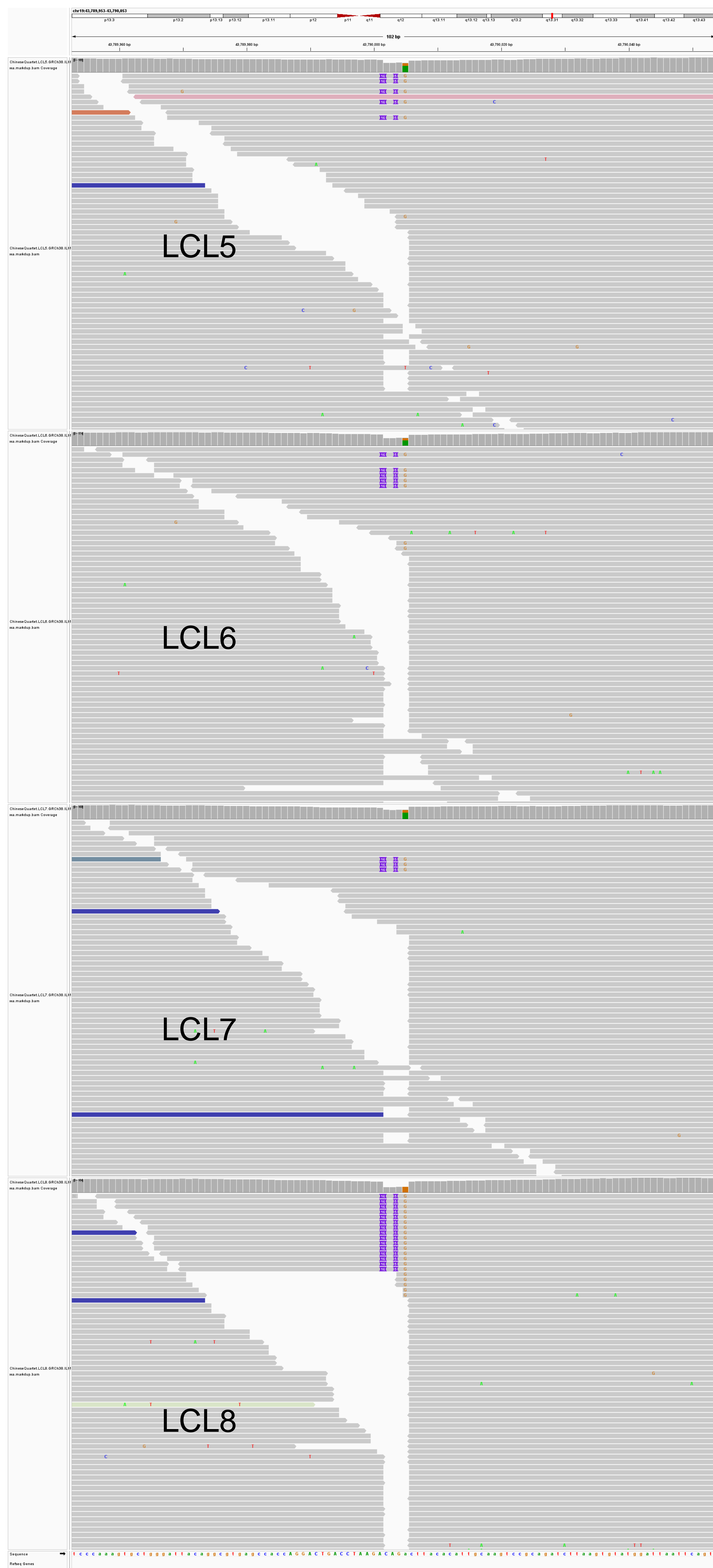




# POS:chr19:43790003 Report Somatic mutation by ILM



HiFi reads



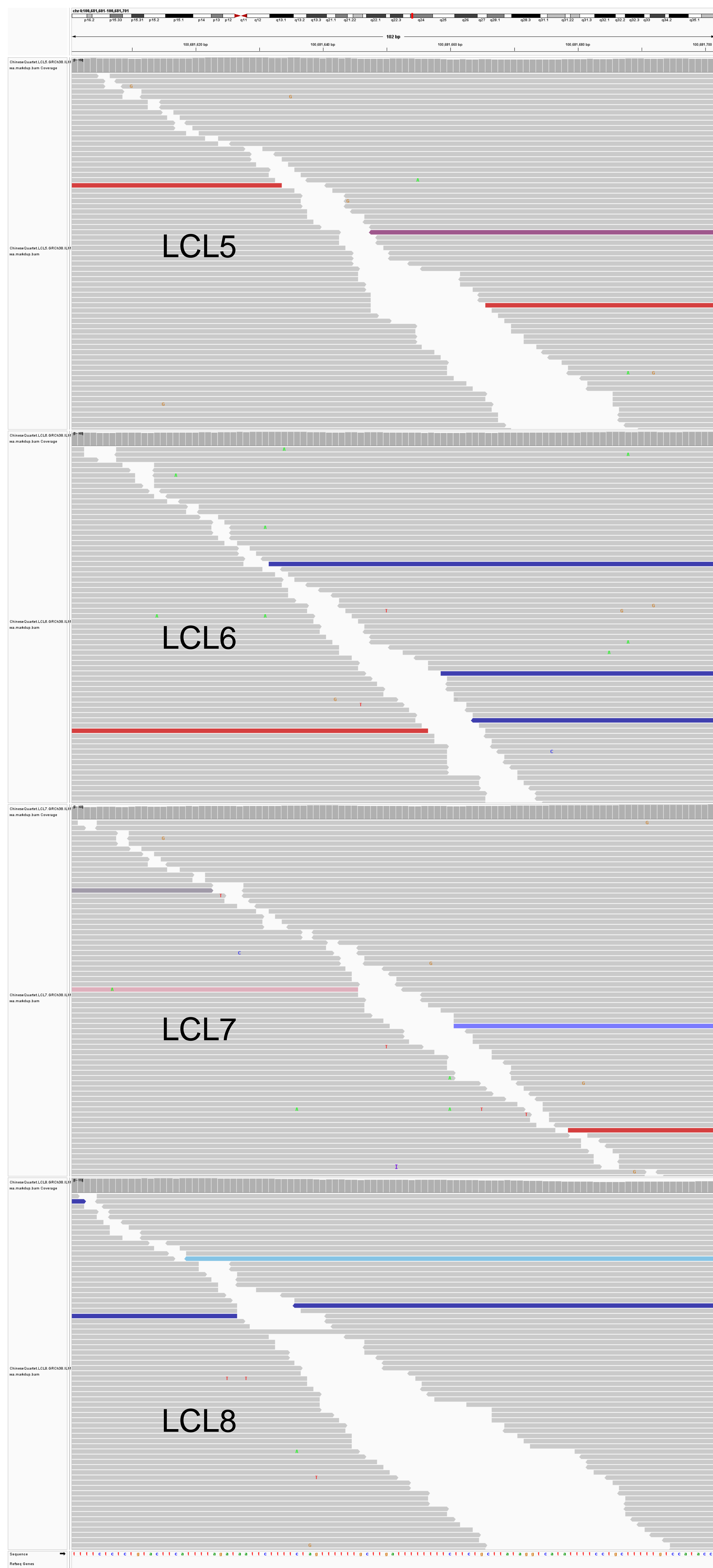
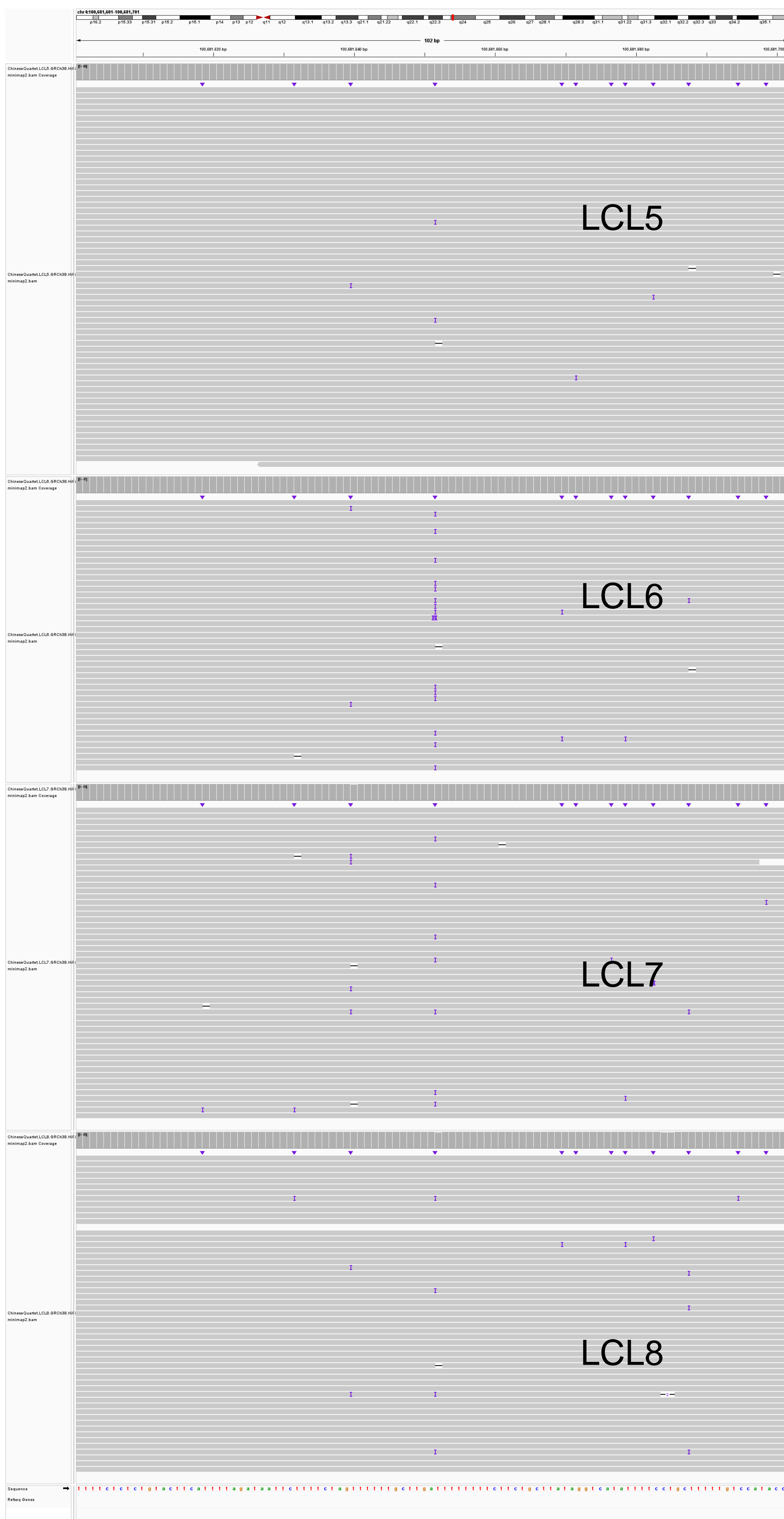
Illumina reads







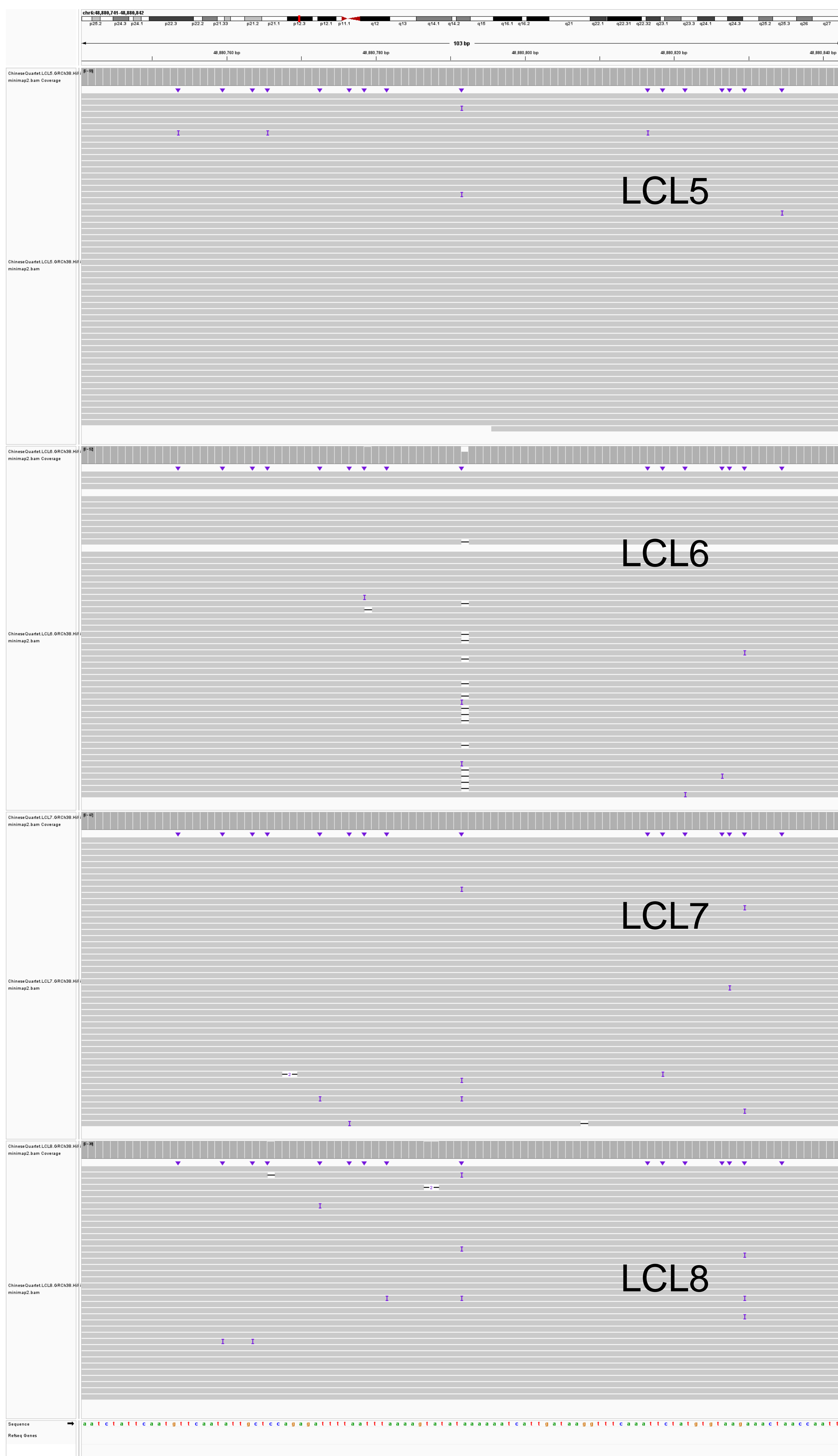
# POS:chr4:100681651 Report Somatic mutation by HiFi



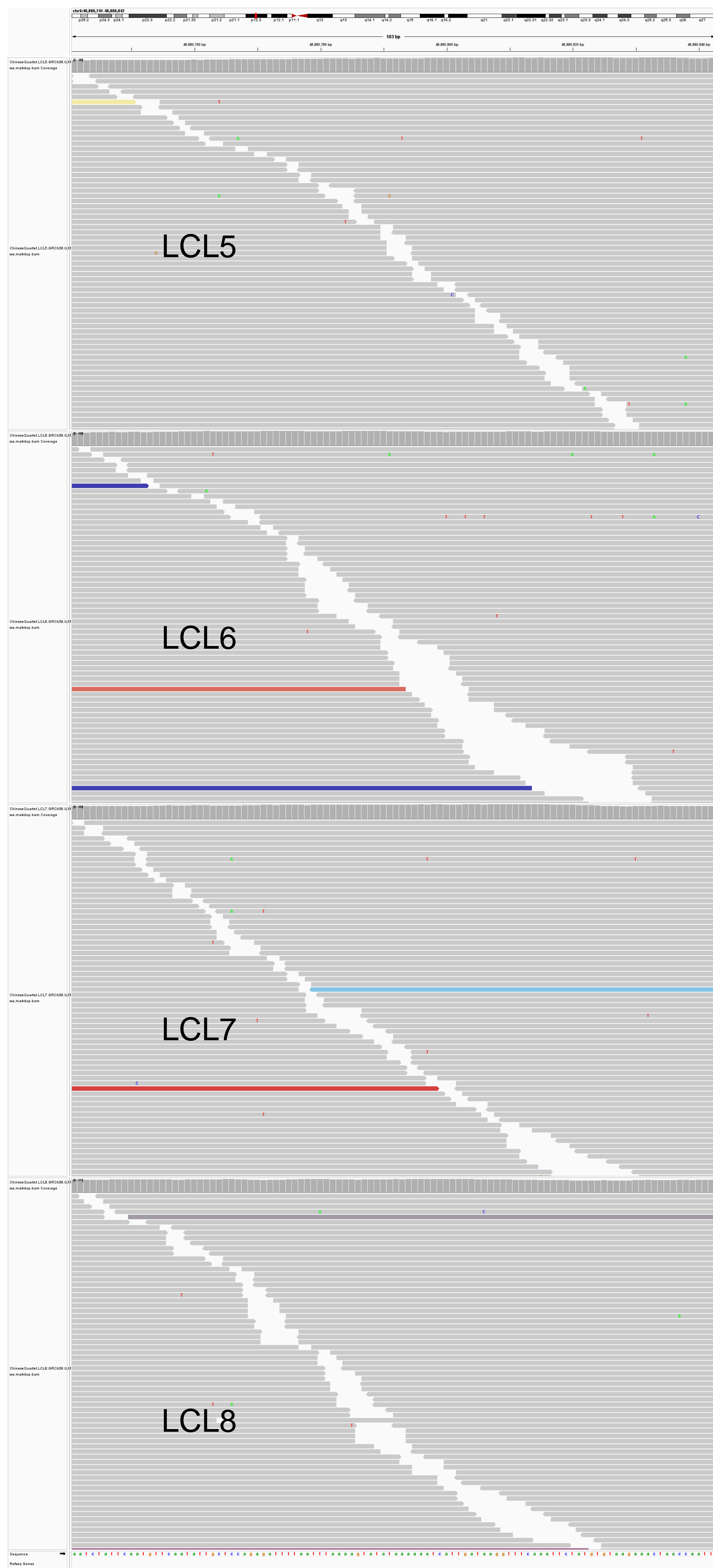
HiFi reads

Illumina reads

# POS:chr6:48880791 Report Somatic mutation by HiFi

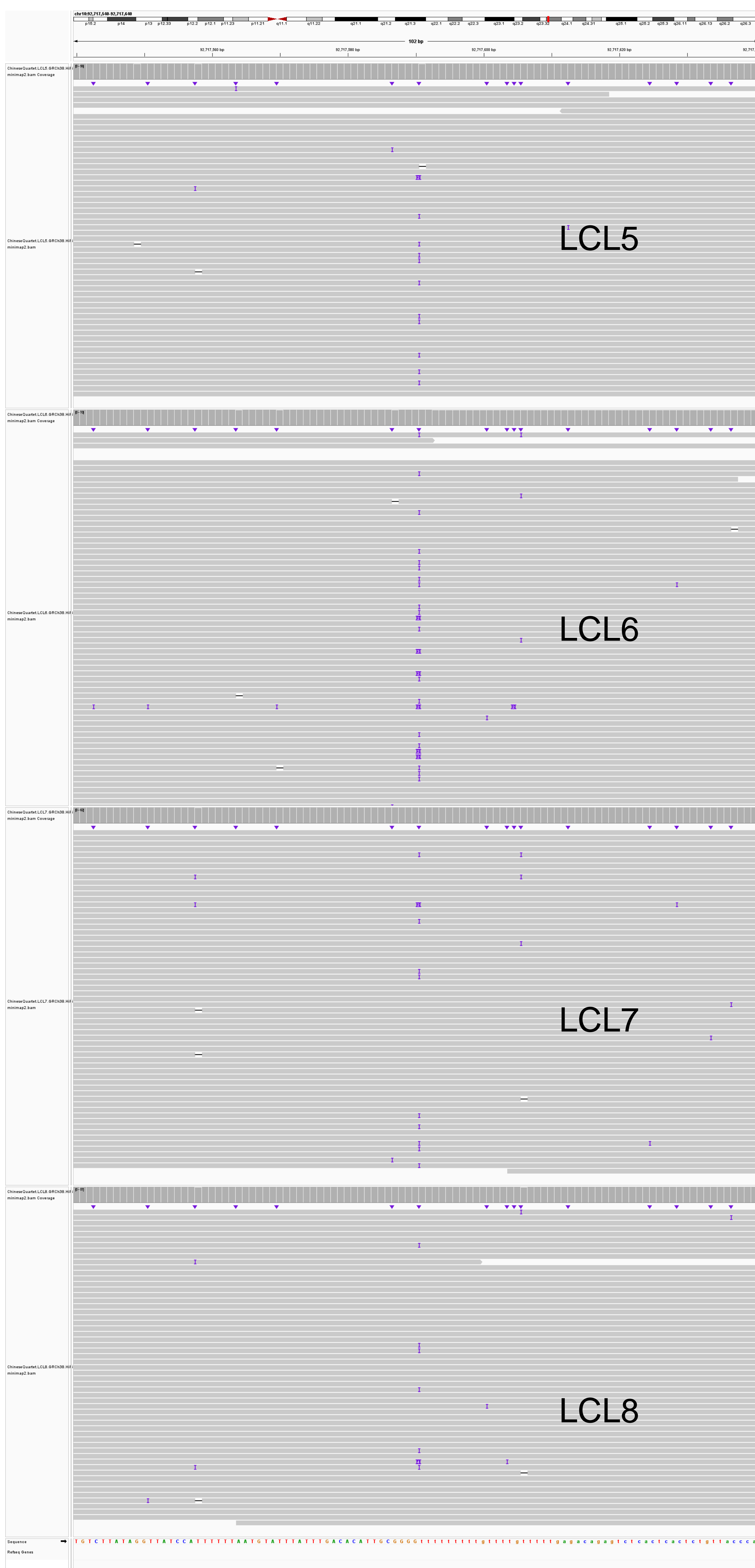


HiFi reads

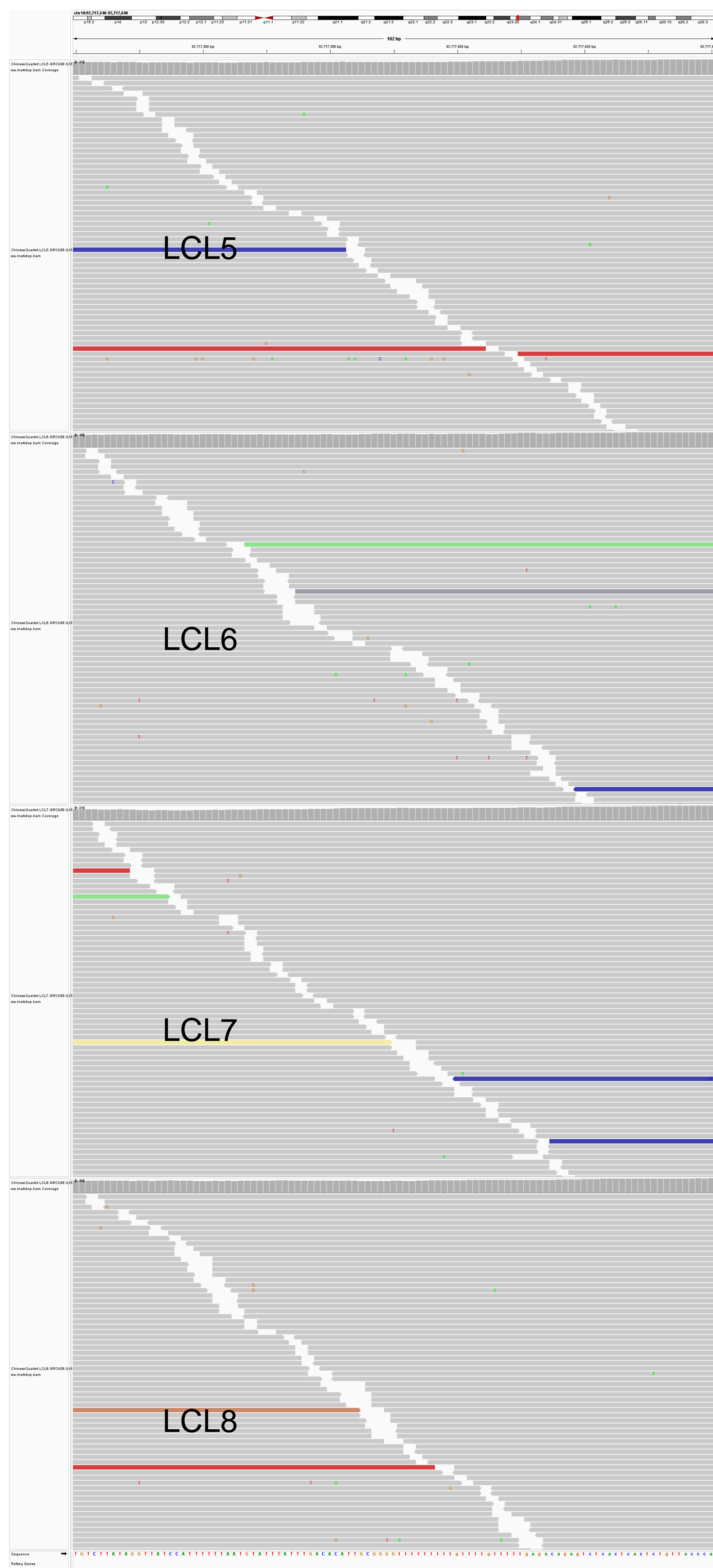


Illumina reads

# POS:chr10:92717590 Report Somatic mutation by HiFi



HiFi reads



Illumina reads

