

ANNEX 12 - Transcription factors identified from differentially expressed protein genes for number of teats (group 13), through an input file in Fasta format

;TFM Explorer

;Date : Mon Nov 8 19:03:04 2021

;Scanned location : -3050:0

;Scanned sequences : None (137 sequences)

;Scanned matrices : (130 matrices)

;Parameters : minsize= 30, maxsize= 1500, ratio=3.0, top=25

;

; headers

; 1 rank window rank

; 2 matrix matrix name

; 3 tf transcription factor name

; 4 info information of content of the matrix

; 5 gc gc content of the matrix (G+C)%

; 6 location location of the window (relatively to TSS)

; 7 pvalue pvalue of the window

1 MA0162.1 Egr1 14.4555832005 0.739393945445 -503:-310 7.3960956452e-16

list of hits

ABCF2	-0416	-405	-	4.57	CCTCTTCCGCT
ABCF2	-0335	-324	-	4.58	CCGCCCCCTCG
ABTB2	-0423	-412	-	7.70	CCGCCTCCGCC
ACTN1	-0494	-483	+	4.60	GGAGTGGGCGG
ACTN1	-0329	-318	-	7.16	TCGCCCCCGCC
ADGRB3	-0502	-491	-	4.44	CCTCCCGCGCG
ADGRB3	-0457	-446	-	4.68	CCGCCCCGCGCC
AGAP3	-0324	-313	+	9.07	GGCGGGGGCGG
AKAP7	-0390	-379	-	4.02	CCCCCTCCGCA
AKAP7	-0318	-307	+	9.07	GGCGGGGGCGG
ALDH6A1	-0448	-437	-	6.50	CCACCTCCGCC
APC2	-0500	-489	-	5.40	CCCCCTACGCA
APC2	-0340	-329	-	8.55	CCTCCCCCGCT
AXL	-0394	-383	-	5.32	CCACCCACCCA
AZIN2	-0313	-302	-	7.48	TCTCCCCCGCA
BMP3	-0390	-379	-	5.27	ACACTCCCGCC
CDC14A	-0336	-325	+	6.68	TCTGGGGGCGG

CFAP43-0423	-412	-	5.49	CCACCCCCAGA
CNMD -0341	-330	+	4.87	GGCGGGAGAGG
CSMD2 -0497	-486	+	4.11	TCTGGAGGTGG
DOCK1 -0331	-320	-	7.70	CCGCTCCGCC
ECPAS -0311	-300	+	6.50	TGCGGAGGTGA
EIF2B2 -0348	-337	+	6.50	GGCGGAGGTGG
EIF2B2 -0314	-303	-	6.94	TCTCCCACGCC
ENPP1 -0426	-415	-	4.15	CCGCCCCTGCT
ENPP3 -0500	-489	-	5.09	TCTCCCACACC
EPB41L2	-0338	-327	-	5.91 CCTCCCACAGG
FASTK -0360	-349	-	9.07	CCGCCCCCGCC
FBXO3 -0311	-300	+	7.22	GGTGGGGGCGG
FGF14 -0493	-482	+	5.67	AGGGTGGGCGG
FGF14 -0481	-470	+	4.06	GATGGAGGCGG
FMNL1 -0363	-352	+	4.15	AGCGGGGGCAT
FSTL3 -0355	-344	+	5.70	GACGGGGGAGT
GHR -0371	-360	+	8.95	AGCGGGGGTGG
HECW1 -0390	-379	+	9.07	GGCGGGGGCGG
HIVEP1 -0374	-363	+	8.37	AACGTAGGCGG
ITGA11 -0318	-307	+	6.68	TCTGGGGGCGG
LMTK2 -0441	-430	-	4.78	CTTCCCACGCA
LMTK2 -0310	-299	-	9.07	CCGCCCCCGCC
LOC100155738	-0359	-348	+	4.39 CCTGTGGGTGA
LOC110255332	-0355	-344	+	8.55 AGCGGGGGAGG
LOC110257570	-0491	-480	-	7.50 CCGCCCACAGG
LOC110257570	-0471	-460	-	7.50 CCGCCCACAGG
LOC110257570	-0451	-440	-	7.50 CCGCCCACAGG
LOC110257570	-0431	-420	-	7.50 CCGCCCACAGG
LOC110257570	-0411	-400	-	7.50 CCGCCCACAGG
LOC110257570	-0391	-380	-	7.50 CCGCCCACAGG
LOC110257570	-0371	-360	-	7.50 CCGCCCACAGG
LOC110257570	-0351	-340	-	7.50 CCGCCCACAGG
LOC110257570	-0331	-320	-	7.50 CCGCCCACAGG
LTBP2 -0314	-303	-	5.84	ACGCCCCCAGT
MAP3K14	-0430	-419	+	4.60 GGAGTGGGCGG
MAP3K14	-0357	-346	+	7.70 GGCGGAGGCGT

MAP3K14	-0343	-332	+	6.79	CCCGGGGGTGG
MAP3K14	-0320	-309	+	5.14	TGAGGGGGCGG
MAPT -0452	-441	+	5.88	CGCGTGCGCGT	
MIDN -0500	-489	+	4.99	TGCGGGGCGG	
MKI67 -0311	-300	+	4.66	CGCGGCGGCGG	
MRPS31	-0424	-413	-	5.41	CCACCTCCGGG
MTUS2 -0446	-435	+	6.02	GGTGTAGGTGG	
MTUS2 -0342	-331	+	4.51	CGCGGGTGCGG	
MYO10 -0486	-475	+	4.08	AGGGTGGGAGG	
MYO10 -0463	-452	+	5.44	GATGGGGGCGG	
MYO10 -0397	-386	+	4.99	TGCAGGGGCGT	
MYO10 -0364	-353	+	5.67	AGGGTGGGCGG	
MYO10 -0320	-309	+	5.96	CGAGTGGGCGG	
NALCN-0474	-463	-	4.69	CCACACACGCG	
NALCN-0454	-443	-	4.12	GCGCCACGGG	
NPTX2 -0476	-465	-	5.82	CGGCCACGCG	
NPTX2 -0348	-337	-	4.58	CCGCCCCCGG	
NRXN3 -0344	-333	+	7.00	TGTGTGGGAGA	
NSF -0392	-381	-	4.38	CCGCCGCCGCT	
NSF -0359	-348	-	4.84	CCCCCCCCGCG	
NSF -0312	-301	+	9.07	GGCGGGGGCGT	
PHACTR1	-0336	-325	+	5.87	AGTGTGAGTGG
PID1 -0476	-465	-	4.11	TCACCCACAGT	
PIWIL1 -0473	-462	-	4.97	CCACTTCCGCT	
PLEKHM1	-0362	-351	-	8.58	CCGCCCCCACG
PLPPR3-0478	-467	-	10.45	CCGCCACGCC	
PLPPR3-0394	-383	-	7.31	CCGCTCACGGA	
POLD2 -0473	-462	+	4.87	GGCGGGAGAGG	
POLD2 -0443	-432	-	4.44	CCGGCCCCGCG	
POLD2 -0392	-381	+	5.53	AGCATGGGCGG	
POLR2E	-0449	-438	-	5.30	ACGCCTCCAGA
POMP -0425	-414	-	4.46	CAGCCCACGCC	
POMP -0364	-353	-	4.44	CCGGCCCCGCG	
PRMT8 -0500	-489	-	4.71	TCGCCCCCGGC	
PRMT8 -0468	-457	+	5.84	GGTGGAGGCGG	
PRMT8 -0423	-412	+	4.58	CGAGGGGGCGG	

PRMT8 -0352	-341	-	8.29	CCGCCCCCACT
PTPRE -0386	-375	-	8.23	TCGCCCCCGCT
PTPRE -0357	-346	-	9.07	CCGCCCCCGCC
PTPRE -0326	-315	+	7.46	CGCGGAGGAGG
RAPGEF1	-0338	-327	+	4.38 AGCGGCGGCGG
RAPGEF1	-0311	-300	+	7.18 AGCGGAGGAGG
RASGEF1B	-0483	-472	+	4.84 CGCGGGGGGGG
RASGEF1B	-0431	-420	+	4.84 CGCGGGGGGGG
RASGEF1B	-0388	-377	+	4.84 CGCGGGGGGGG
RASGEF1B	-0344	-333	+	4.84 CGCGGGGGGGG
RIMBP2	-0355	-344	-	4.99 CCGCCCCTGCA
RUNX1 -0405	-394	+	4.53	CCTGGGGGAGG
SEPTIN11	-0493	-482	-	4.44 CCGCCCCTGCG
SH3PXD2A	-0366	-355	-	6.39 CCTCCCCCGGG
SLC35F3	-0490	-479	+	9.07 GGCGGGGGCGG
SLC35F3	-0464	-453	+	4.92 TGGGTGGGAGT
SLC35F3	-0324	-313	+	4.44 CGCGGGGACGG
SMURF1	-0503	-492	-	6.10 CCTCCTCCGCC
SMURF1	-0460	-449	-	4.44 CCGACCCCGCG
SMURF1	-0369	-358	+	4.00 CGCGGGGGTGC
SORCS3	-0495	-484	-	5.75 GCGCCCCCGCA
SORCS3	-0408	-397	-	4.17 CCCCTCACGCA
SORCS3	-0369	-358	-	5.75 GCGCCCCCGCA
STN1 -0379	-368	+	4.60	GGGGTGGGCGG
TEKT5 -0311	-300	+	5.70	GACGGGGGAGG
TMEM132D	-0369	-358	+	4.11 GGTGGGGGTGA
TRMT13	-0428	-417	+	4.86 CGCGGAAGAGG
TRMT13	-0394	-383	+	6.24 TACGGAGGAGG
YLPM1 -0323	-312	+	5.22	TGCGCAGGCGT
ZBTB18	-0372	-361	+	8.95 AGCGGGGGTGG
ZSCAN20	-0428	-417	-	6.80 CCGCCCCCATG
ZSCAN20	-0324	-313	-	9.95 CCGCCCACACG

2 MA0002.2 RUNX1 10.4014248352 0.501590918453 -2393:-2148 1.3749203565e-12
list of hits
ADGRD1 -2166 -2155 - 7.66 CAACCACAAGT

ALDH6A1	-2336	-2325	-	6.65	ACACCACAGCT
ALDH6A1	-2245	-2234	-	6.29	TAACCACTGAG
APC2	-2333	-2322	+	7.65	TCTTGTGGTTC
APC2	-2296	-2285	+	8.39	GGCTGTGGTTC
APC2	-2265	-2254	+	6.71	ATTTGTGGTGT
ARFGEF3	-2297	-2286	-	6.56	CAACCACATCA
AXL	-2356	-2345	-	7.69	AGGCCACAGAT
AXL	-2327	-2316	+	7.01	TGTTGTGGCTG
CAPRIN1	-2387	-2376	-	6.26	AAAGCACAGAT
CCZ1	-2365	-2354	-	6.46	AGGCCACAGTT
CFAP43-2326	-2315	+	6.29	CTCAGTGGTTA	
CFAP43-2242	-2231	+	7.24	TGCTGTGGTGT	
CFAP43-2202	-2191	+	7.49	TGCTGTGGCTG	
CLRN3	-2306	-2295	-	7.56	ACACCACAGGC
CNMD	-2323	-2312	-	6.06	AAGCCACATCT
CNMD	-2305	-2294	-	5.97	ACACCACAGTT
CNMD	-2274	-2263	-	7.54	CACCCACAGAG
CNOT6L	-2185	-2174	+	7.15	CTATGTGGCTT
COL17A1	-2393	-2382	-	6.91	GAGCCACAGCA
COL17A1	-2353	-2342	-	5.97	ACACCACAGTT
COL17A1	-2262	-2251	-	6.29	TAACCACTGAG
COL19A1	-2368	-2357	+	6.35	TTCTGGGGTCT
CSMD2	-2359	-2348	+	7.60	GCCTGTGGGCT
CSMD2	-2347	-2336	-	7.51	CAGCCACAAAG
CSMD2	-2248	-2237	+	6.68	AGCTGTGGGCT
DOCK1	-2262	-2251	-	7.98	ATACCACAGCC
DPH5	-2336	-2325	+	7.44	AGGTGTGGTTT
EIF2B2	-2299	-2288	+	6.35	TACTGTGTTTT
EIF2B2	-2159	-2148	+	6.46	ATCTTTGGTTT
ELF1	-2376	-2365	-	6.78	ATGCCACAGCC
ELF1	-2330	-2319	-	6.65	ACACCACAGCT
ELF1	-2284	-2273	-	7.69	AGGCCACAGAT
ELF1	-2230	-2219	-	5.69	GAGCCACAATG
EMP2	-2192	-2181	+	7.00	TTCTGTGGGTC
ENPP1	-2379	-2368	+	6.56	TTTTTTGGTTT
ENPP3	-2392	-2381	+	5.72	ATCTGTGGCAA

EPB41L2	-2240	-2229	-	10.26	AAACCACAGCC
EXTL2	-2358	-2347	+	6.88	TTTTCTGGTTT
EXTL2	-2347	-2336	+	7.19	GTTTGGGGTTT
EXTL2	-2257	-2246	-	6.65	ACACCACAGCT
FASTK	-2281	-2270	+	5.80	ACTTGGGGTTT
FASTK	-2200	-2189	+	6.38	GGGTGTGGCTA
FSTL3	-2307	-2296	+	6.46	GTCTCTGGCTT
GCK	-2160	-2149	-	6.32	ACGCCACAGCC
HEATR4	-2308	-2297	+	5.77	TTCTGTGGCAG
HECW1	-2223	-2212	+	6.47	GGATGTGGGTT
HIVEP1	-2293	-2282	+	6.25	TCCTGCGGCTT
HIVEP1	-2227	-2216	-	6.91	GAGCCACAGCA
HIVEP1	-2187	-2176	-	6.65	ACACCACAGCT
LMTK2	-2222	-2211	-	5.77	AATCCACAGCC
LOC100516852	-2350	-2339	+	6.56	TTTTTTGGTTT
LOC100628139	-2185	-2174	+	7.10	TTTTGTGTTTT
LOC102159591	-2211	-2200	+	5.74	CGCAGTGGTTA
LOC102159591	-2151	-2140	+	5.83	CTCAGTGGCTT
LOC102160349	-2172	-2161	-	6.51	AAACCAAAAAG
LOC102162774	-2361	-2350	-	6.34	AAAGCACAGGA
LOC110255332	-2287	-2276	+	6.46	ACTTGTGGCTG
LOC110257570	-2243	-2232	-	6.84	CACCCACAACC
LTBP2	-2334	-2323	+	7.33	GGCTGAGGTTT
LTBP2	-2157	-2146	-	7.04	AAAACACAGCA
MIA	-2332	-2321	+	6.05	TCTTGTGGTGA
MIA	-2275	-2264	+	8.10	TGCTGTGGTTC
MIA	-2163	-2152	-	9.22	AGACCACAGCC
MKI67	-2164	-2153	+	5.75	ACCTGTGCTTT
MRPS31	-2388	-2377	+	6.65	AGCTGTGGTGT
MRPS31	-2348	-2337	+	7.49	TGCTGTGGCTG
MRPS31	-2217	-2206	-	6.50	AAACCAAAGCA
MTUS2	-2386	-2375	-	8.39	GAACCACAGCC
NAA16	-2255	-2244	+	6.65	AGCTGTGGTGT
NAA16	-2165	-2154	+	6.36	TACTGTGGGTG
NEK3	-2194	-2183	+	7.51	TACTGTGGTCA
NEXN	-2289	-2278	-	6.42	GAGCCACAACA

NPTX2	-2149	-2138	+	5.61	GATTGTGGCAT
NRXN3	-2378	-2367	-	5.69	CTACCACAGTG
NRXN3	-2172	-2161	+	6.18	CACTGTGGCTC
ODF3L2		-2162	-2151	+	5.94 ACCTGTGGCAT
PHC2	-2339	-2328	-	6.00	ATGCCACAAGG
PID1	-2170	-2159	-	6.50	AGACCTCAGAG
PIWIL1	-2317	-2306	+	5.93	GTGTGTGTTTT
PLEKHM1		-2199	-2188	-	7.52 ACACCACAGCC
POLD2	-2348	-2337	-	7.14	AGGCCACAGCT
POLD2	-2248	-2237	-	6.37	GAGCCACAACG
POLR2E		-2215	-2204	-	5.94 TGCCCACAGCT
PRKG2	-2336	-2325	-	6.62	AGGCCACACAC
PTPRE	-2196	-2185	+	6.65	AGCTGTGGTGT
PTPRE	-2167	-2156	+	6.77	CACTGTGGCTG
PTPRE	-2153	-2142	+	9.98	TGCTGTGGTTT
RASGEF1B		-2355	-2344	+	5.63 CCCTGGGGCTT
RGS6	-2253	-2242	-	6.65	AAGCCACATCA
SELENOP		-2377	-2366	-	6.41 GACCCACAGAT
SH3PXD2A		-2344	-2333	-	5.91 ATGCCACAGCT
SH3PXD2A		-2171	-2160	-	7.58 TACCCACAGCA
SLC35F3		-2389	-2378	-	7.56 GGACCACAGAG
SLC46A3		-2236	-2225	-	6.39 CAGCCACACAC
SMURF1		-2199	-2188	-	6.12 TAACCCCAAAG
SMURF1		-2160	-2149	-	7.66 CAACCACAAGT
SORCS3		-2259	-2248	+	5.97 GCCTGGGGCTT
SORCS3		-2219	-2208	+	6.10 GCCTCTGGTCT
STN1	-2182	-2171	+	6.43	CTTTGTGGTAG
SUGT1	-2293	-2282	+	6.83	TGGTGTGGCTT
TEKT5	-2271	-2260	-	8.78	AAGCCACAGCA
TEKT5	-2173	-2162	-	5.93	ACCCACAAAC
TMEM132D		-2325	-2314	-	8.07 ACACCACAGAC
TRMT13		-2352	-2341	+	7.49 TGCTGTGGCTG
VPS36	-2266	-2255	-	6.64	AGACCCACAGAC
WDR18	-2376	-2365	+	5.74	CGCAGTGGTTA
WDR18	-2285	-2274	+	7.52	GGCTGTGGTGT
WDR18	-2245	-2234	+	6.91	TGCTGTGGCTC

ZNF423 -2302	-2291	-	6.91	GAGCCACAGCA
ZNF423 -2262	-2251	-	6.65	ACACCACAGCT
ZSCAN20	-2148	-2137	+	5.63 CTTTCTGGCTT

3 MA0039.2 Klf4 12.6183576774 0.771222760739 -369:-313 8.70061832183e-10

list of hits

ABCF2 -0338	-328	-	10.13	GCCCCGCCCC
ABCF2 -0317	-307	-	7.71	GCCCCGCCCCG
ACTN1 -0326	-316	-	5.43	CCCCCGCCCCG
ADGRB3	-0313	-303	-	6.30 CCCCCCTCCCT
AGAP3 -0366	-356	-	10.13	GCCCCGCCCC
AGAP3 -0326	-316	+	7.85	GGGGCGGGGG
AKAP7 -0314	-304	+	10.13	GGGGCGGGGC
AKT3 -0325	-315	+	5.54	TGGTCGTGGC
ALDH6A1	-0359	-349	+	8.05 AGGGCGTGGA
AXL -0317	-307	-	5.38	GCCCCGCCCT
CDC14A	-0352	-342	+	8.11 AGGGCGGGGA
CSMD2 -0364	-354	-	7.85	CCCCCGCCCC
DPH5 -0369	-359	-	8.29	TCCCCGCCCA
EIF2B2 -0350	-340	+	5.73	TGGGCGGAGG
EIF2B2 -0331	-321	+	8.96	GGGGCGTGGT
ELF1 -0339	-329	+	5.37	GAGGTGGGGT
EPB41L2	-0341	-331	-	5.48 GGCCCTCCCA
EXTL2 -0364	-354	+	6.73	AAGGCAGGGC
EXTL2 -0352	-342	+	7.15	AGGGCGGGAC
EXTL2 -0333	-323	+	10.13	GGGGCGGGGC
EXTL2 -0314	-304	+	10.13	GGGGCGGGGC
FASTK -0363	-353	-	6.79	GTCCCGCCCC
FASTK -0317	-307	+	10.13	GGGGCGGGGC
FBXO3 -0333	-323	+	7.05	GGGGAGTGGT
FGF14 -0317	-307	+	6.38	TGGGCGCGGT
FSTL3 -0324	-314	-	5.65	GCCCCCCCCC
GHR -0363	-353	+	8.29	TGGGCGGGGA
HECW1 -0355	-345	+	10.49	AGGGCGGGGC
HIVEP1 -0321	-311	+	5.65	GGGGGGGGGC
LMTK2 -0313	-303	-	6.79	GTCCCGCCCC

LOC100516852	-0333	-323	-	5.58	GCCCAGCCCC
LOC100626147	-0364	-354	+	10.13	GGGGCGGGGC
LOC100626147	-0353	-343	+	5.65	GGGGGGGGGC
LOC102159591	-0357	-347	+	5.93	AGGGCTGGGC
LOC102159591	-0322	-312	+	5.69	GGGGAGGGTC
LOC110255332	-0317	-307	-	6.20	GCCACAGCCA
LOC110257570	-0354	-344	-	9.56	ACCCCGCCCA
LOC110257570	-0334	-324	-	9.56	ACCCCGCCCA
LOC110257570	-0321	-311	+	5.73	GGGGCGGGCT
LTBP2	-0342	-332	-	5.72	GCCCCAGCCC
MAP3K14	-0353	-343	+	6.31	GAGGCGTGGC
MAP3K14	-0316	-306	+	10.13	GGGGCGGGGC
MIDN	-0362	-352	+	7.85	GGGGCGGGGG
MIDN	-0322	-312	-	7.85	CCCCCGCCCC
MYO10	-0360	-350	+	10.68	TGGGCGGGGC
MYO10	-0343	-333	+	5.42	TCGGTGGGGC
MYO10	-0316	-306	+	10.68	TGGGCGGGGC
NEXN	-0319	-309	+	5.94	GGGGAGGGGG
NPTX2	-0351	-341	-	7.85	CCCCCGCCCC
NRXN3	-0334	-324	+	8.59	AGGGAGGGGC
NSF	-0365	-355	-	5.19	CCTCCGCCCC
OXCT1	-0340	-330	-	5.73	AGCCCGCCCC
PCNX2	-0360	-350	+	8.02	TGGGCGGAGC
PHC2	-0320	-310	-	5.40	GCCCCACGCT
PLEKHM1	-0316	-306	+	10.13	GGGGCGGGGC
PLPP7	-0352	-342	+	8.23	GGGGAGGGGC
POLD2	-0342	-332	+	7.38	TGGGCGGGCC
POLR2E	-0324	-314	-	8.77	GCCCCTCCCA
POMP	-0367	-357	-	5.62	GCCCCGCCCC
PRMT8	-0355	-345	-	7.75	TCCCCGCCCC
PTPRE	-0369	-359	+	5.48	TGCGCGGGGC
RASGEF1B	-0357	-347	+	6.37	GAGGCGGGGC
RASGEF1B	-0316	-306	+	6.37	GAGGCGGGGC
RIMBP2	-0358	-348	-	7.75	TCCCCGCCCC
SELENOP	-0321	-311	+	6.20	TGGCTGTGGC
SEPTIN11	-0351	-341	-	5.55	CCTCCGCCCT

SEPTIN11	-0332	-322	-	7.95	CCCCCACCCC
SH3PXD2A	-0369	-359	-	8.23	GCCCCTCCCC
SH3PXD2A	-0349	-339	-	8.23	GCCCCTCCCC
SH3PXD2A	-0323	-313	-	6.21	TCCCCTCCCT
SMURF1	-0341	-331	+	5.38	AGGGCCGGGC
SORCS3	-0330	-320	+	5.59	GGGGGGTGGC
SORCS3	-0313	-303	+	6.84	GGGGCGGGCC
TMEM132D	-0354	-344	+	5.37	GAGGTGGGGT
WDR18 -0328	-318	+	8.06	AGGGTGGGTC	
ZBTB18	-0315	-305	+	7.85	GGGGCGGGGG

4 MA0105.1 NFKB1 15.6269628514 0.757575756447 -2346:-2120 3.80249015766e-09

list of hits

AGAP3 -2334	-2323	+	2.73	GGGGCAGCTCA
AGAP3 -2123	-2112	+	4.96	GTGAATTCCCC
ARHGAP45	-2140	-2129	+	2.93 GAGGCATTCCC
AXL -2208	-2197	+	4.38	TGGGAGTTCCC
AXL -2152	-2141	-	2.79	TCGGGTCCCC
CFAP43-2343	-2332	+	4.36	AGGAGTTCCCC
CHST15	-2289	-2278	-	4.89 TGAGAACTCCC
CHST15	-2245	-2234	+	5.29 GTGGAATTCCC
CSMD2 -2308	-2297	+	6.32	GGGGGAGTCCA
CSMD2 -2172	-2161	+	2.81	GGGAAAGACCC
CSMD2 -2148	-2137	+	3.71	AGGGCTTTCCC
DOCK1 -2308	-2297	+	3.75	GGAGGTTCCCA
DPF3 -2316	-2305	+	4.00	GGGGGAGCACC
DPF3 -2270	-2259	+	7.04	GGGGCTTTCCT
DPF3 -2256	-2245	+	8.19	GGGGCAGCCCC
DPF3 -2191	-2180	+	4.56	GGGGAAGTCC
ECPAS -2316	-2305	+	3.04	GGGGGGGCCGC
ELF1 -2220	-2209	-	4.38	GGGAAGTCTC
EXTL2 -2304	-2293	+	3.75	GGAGGTTCCCA
EXTL2 -2237	-2226	-	3.57	CAGGGATCCCC
GALNT10	-2141	-2130	-	2.80 AGGAAACCCCT
GIMAP8	-2238	-2227	-	4.87 GGGCGCTCCCC
GIMAP8	-2124	-2113	-	6.03 GGGACCCTCCC

GIPC2	-2300	-2289	+	2.99	GGGGAGTGCCT
HIVEP1	-2280	-2269	+	3.75	GGAGGTTCCCA
LOC100516852	-2131	-2120	+	3.75	GGAGGTTCCCA
LOC100517809	-2345	-2334	-	3.28	GGAAAATCCAC
LOC100626147	-2343	-2332	-	3.53	AGAACTCCCCC
LOC100626147	-2154	-2143	+	3.75	GGAGGTTCCCA
LOC102160349	-2274	-2263	-	6.93	CGGAGCTCCCC
LOC102162774	-2171	-2160	-	5.65	AGGACATTCCC
LOC110257387	-2177	-2166	-	2.98	TGAAGTTTCCC
LOC110257570	-2126	-2115	+	3.75	GGAGGTTCCCA
LTBP2	-2331	-2320	-	3.93	TGAGGTTTCCC
LTBP2	-2316	-2305	-	4.87	GGGTGCTCCCC
MIA	-2210	-2199	+	3.75	GGAGGTTCCCA
MKI67	-2273	-2262	+	3.81	GGGGGTTTCGCT
MRPS31	-2295	-2284	-	3.75	TGGGAACCTCC
MTUS2	-2234	-2223	+	4.87	GGGGAGCACCC
MYO10	-2191	-2180	+	3.69	GGGCAATCCCA
NAA16	-2179	-2168	-	3.75	TGGGAACCTCC
NALCN	-2298	-2287	+	3.23	GTGAAATTCCC
PIWIL1	-2305	-2294	-	5.04	AGAAGTTCCCC
PIWIL1	-2178	-2167	+	2.98	GGGAAACTTCA
PLEKHM1	-2247	-2236	+	3.41	TGGAGTTTCCC
PLPP7	-2307	-2296	+	3.78	GCGGGGTTCCC
PLPPR3	-2267	-2256	-	2.97	CGGGATCCCAC
POMP	-2248	-2237	+	4.36	GGCAGTTCCCC
RASGEF1B	-2291	-2280	-	2.97	TGGGGACCCAC
RIMBP2	-2278	-2267	+	3.60	GTGGAGCTCCC
SELENOP	-2346	-2335	-	3.40	TGGAAATCACC
SEPTIN11	-2120	-2109	-	2.99	TGGCCATCCCC
SORCS3	-2342	-2331	+	5.82	GGGGAGACCCC
SPPL2C	-2191	-2180	-	5.87	TGAGCATCCCC
TEKT5	-2225	-2214	+	4.50	AGGGAACCTCCC
TEKT5	-2180	-2169	+	2.81	GGGAAAGACCC
TMEM132D	-2172	-2161	+	4.50	TGGGAACTCCC
TRMT13	-2300	-2289	+	7.70	GGGGAACCTCC
WDR18	-2192	-2181	-	3.75	TGGGAACCTCC

ZNF423-2154 -2143 + 4.50 CGGGAAC TCCC

5 MA0060.1 NFYA 12.9251246242 0.522629311625 -422:-318 6.79081422304e-08

list of hits

ABTB2 -0357	-341	-	6.68	GAGATCATTGGTGCAA
ABTB2 -0325	-309	-	8.73	CCGATGATTGGTGGGC
ACTN1 -0414	-398	+	5.05	AATTCCCAATGAGAGG
ACTN1 -0371	-355	+	7.82	CCTGGCCAATGGAGAA
ALDH6A1	-0394	-378	+	8.27 TCTGACCAATCGCATA
ALDH6A1	-0336	-320	-	9.06 CGTGTGATTGGCTAGG
APC2 -0422	-406	-	8.14	GCCACCATTGGCTGTT
APC2 -0380	-364	-	8.30	GCCTCCATTGGCCGCC
CFAP43-0410	-394	+	6.98	TTTCACCAATCCGCTT
CFAP43-0368	-352	+	10.14	CAGAGCCAATGGGCGC
CHD6 -0360	-344	+	6.40	GCTGACCAATGACTCT
EIF2B2 -0376	-360	-	11.77	TCTCTGATTGGCTCAG
GCK -0378	-362	-	5.08	AAGGCGATTGGGCTGT
GIMAP8	-0321	-305	+	4.72 GGGGTCAAATCAGAGC
HECW1-0322	-306	-	4.85	CTTGTGGTTGGTTCTG
LOC102162774	-0369	-353	+	4.87 TGGAGCCTATCAAGAC
MAPT -0355	-339	-	5.94	GGGTCGATTGGTAGGG
MIA -0329	-313	-	5.26	GCTCAGATTGGACCCC
MKI67 -0399	-383	-	8.54	CTTCCCATTGGTCTGT
MKI67 -0373	-357	+	7.20	TGCGTCCAATCGCAGC
NPTX2 -0393	-377	+	10.16	CAGGGCCAATCAGATC
PHACTR1	-0318	-302	+	4.70 TTAGACAAATGAGCAT
PHC2 -0378	-362	-	8.62	GTGACCATTGGCTGGA
PLEKHM1	-0339	-323	-	9.16 CCCGCGATTGGCTCCG
POLD2 -0411	-395	-	8.64	GCAGCGATTGGCCGGA
POLR2E	-0370	-354	+	6.22 CGCAGCCAACCGCCGC
RAD51B	-0348	-332	-	8.01 CCTTTGATTGGATGCT
RASGEF1B	-0420	-404	-	5.46 CGAGTGATTGGCAGGG
RASGEF1B	-0376	-360	-	5.37 CGAGTGATTGGCAGGT
RASGEF1B	-0335	-319	-	6.22 GGGATGATTGGCAGGG
RIMBP2	-0404	-388	+	4.67 GCCAGCCAATATTCTG
RUNX1 -0325	-309	-	5.19	CACATGATTGGCAAGA

SLC46A3	-0415	-399	+	6.93	GCGGACCAATCCCGGC
SLC46A3	-0385	-369	+	6.84	GGGACCCAATCGCAGG
TECPR1	-0363	-347	+	6.33	CGCAGCCAATCCCGCG
TECPR1	-0322	-306	+	11.06	GCCAACCAATGGGAGC
ZSCAN20	-0407	-391	-	5.03	GTTTCGGATTTGTTCCG
ZSCAN20	-0369	-353	-	7.66	GCATCTATTGGCTGAC

6 MA0107.1 RELA 14.7568335332 0.566666663438 -2309:-2145 7.68310793274e-08

list of hits

ABTB2	-2284	-2274	-	9.73	GGAAACTCCA
ACTN1	-2252	-2242	+	3.74	TGCAGTTTCC
ARFGEF3	-2159	-2149	+	4.76	TGGAAGTTCC
AXL	-2273	-2263	+	6.05	GGGAACTTCC
AXL	-2208	-2198	+	4.31	TGGGAGTTCC
AZIN2	-2145	-2135	-	6.17	GGAATCTCAC
BMP3	-2236	-2226	-	3.74	GAAAACTCCA
BMP3	-2219	-2209	+	5.99	GAGAATTTCC
CHST15	-2245	-2235	+	6.63	GTGGAATTCC
CNMD	-2214	-2204	-	7.67	GGGAACTCCA
CSMD2	-2171	-2161	-	5.23	GGAAAGACCC
CSMD2	-2148	-2138	+	4.78	AGGGCTTTCC
DOCK1	-2309	-2299	+	3.85	TGGAGGTTCC
DPF3	-2270	-2260	+	10.29	GGGGCTTTCC
ENPP1	-2195	-2185	+	6.43	AGGAATTTCC
EXTL2	-2305	-2295	+	3.85	TGGAGGTTCC
EXTL2	-2235	-2225	-	5.45	GGGATCCCCG
EXTL2	-2149	-2139	-	7.67	GGGAACTCCA
FAM78A	-2200	-2190	-	4.29	GCAAAGCCCC
GIPC2	-2222	-2212	+	5.14	TGGTATTTCC
HEATR4	-2302	-2292	+	5.03	GGCAGTTTCC
HIVEP1	-2281	-2271	+	3.85	TGGAGGTTCC
LOC100626147	-2155	-2145	+	3.85	TGGAGGTTCC
LOC100628139	-2254	-2244	+	4.65	TGGAATTTAC
LOC100628139	-2145	-2135	+	4.76	TGGAAGTTCC
LOC102159591	-2228	-2218	+	7.95	CGGAGTTCCC
LOC102162774	-2170	-2160	-	5.93	GGACATTCCC

LOC110257387	-2177	-2167	+	3.74	TGAAGTTTCC
MIA	-2211	-2201	+	3.85	TGGAGGTTCC
MRPS31	-2293	-2283	-	3.85	GGAACCTCCA
MYO10	-2190	-2180	-	4.31	GGCAATCCCA
NAA16	-2177	-2167	-	3.85	GGAACCTCCA
NALCN	-2298	-2288	+	7.08	GTGAAATTCC
NEXN	-2278	-2268	-	4.31	GGAACTCCCA
NPTX2	-2272	-2262	-	3.63	GGAAATACAC
ODF3L2	-2150	-2140	+	4.76	TGGAAGTTCC
PCNX2	-2264	-2254	+	4.76	TGGAAGTTCC
PIWIL1	-2177	-2167	-	3.74	GGAAACTTCA
PLEKHM1	-2247	-2237	+	9.73	TGGAGTTTCC
PLPP7	-2306	-2296	+	7.51	CGGGGTTCCC
PLPPR3	-2266	-2256	-	3.66	GGGATCCCAC
POLD2	-2238	-2228	-	7.67	GGGAACTCCA
POMP	-2291	-2281	+	5.14	TTGGTTTTCC
RAPGEF1	-2298	-2288	-	7.67	GGGAACTCCA
RAPGEF1	-2217	-2207	-	3.67	TGAAAATCCC
RGS6	-2208	-2198	+	4.65	TGTAATTTC
SPPL2C	-2269	-2259	-	5.08	GGAAACTCTC
TEKT5	-2224	-2214	+	3.99	GGGAACTCCC
TEKT5	-2179	-2169	-	5.23	GGAAAGACCC
TMEM132D	-2171	-2161	+	3.99	GGGAACTCCC
TRMT13	-2299	-2289	+	6.05	GGGAACTTCC
WDR18	-2190	-2180	-	3.85	GGAACCTCCA
ZNF423	-2153	-2143	+	3.99	GGGAACTCCC

7	MA0061.1	NF-kappaB	13.3447617922	0.621052631736	-2181:-2006	1.12336677319e-07
		list of hits				
	ABCF2	-2099	-2089	+	6.22	GGGACAATCC
	ABTB2	-2022	-2012	+	5.66	GGGAATGCAC
	AGAP3	-2123	-2113	+	5.24	GTGAATTCCC
	ARFGEF3	-2158	-2148	+	4.85	GGAAGTTCCC
	ARFGEF3	-2065	-2055	-	4.91	GAGAACTCCC
	ARHGAP45	-2139	-2129	-	5.63	AGGCATTCCC
	AXL	-2009	-1999	+	8.14	GGGAACTTCC

CEP128 -2092	-2082	+	4.85	GGAAGTTCCC
CEP170 -2078	-2068	+	4.85	GGAAGTTCCC
CHST15	-2050	-2040	+	5.38 GGGAACCTCC
COL17A1	-2138	-2128	+	6.05 GGGGCATCAC
CSMD2 -2172	-2162	+	5.04	GGGAAAGACC
CSMD2 -2147	-2137	-	7.14	GGGCTTTCCC
CSMD2 -2134	-2124	+	5.66	GGGAAGACCC
DPF3 -2059	-2049	+	7.45	GGGGCTCCCC
EIF2B2 -2099	-2089	+	7.06	GGAGATTCCC
ENPP1 -2080	-2070	-	5.29	AGAAGTTCCC
EXTL2 -2031	-2021	-	5.38	GGAGGTTCCC
FMNL1 -2027	-2017	+	6.11	GGGGCACCCC
GALNT10	-2141	-2131	-	6.42 AGGAAACCCC
GCK -2007	-1997	+	5.18	GGGAACTCCT
GIMAP8	-2124	-2114	+	5.00 GGGACCCTCC
GIMAP8	-2014	-2004	+	5.39 GGGGCGGTCC
HIVEP1 -2078	-2068	+	5.17	GGGAGCTCCC
HIVEP1 -2029	-2019	-	5.38	GGAGGTTCCC
ITGA11 -2010	-2000	+	8.01	GGGACTTCCT
KPNA7 -2040	-2030	+	4.67	GGGGACTTAC
LOC100516852	-2131	-2121	-	5.38 GGAGGTTCCC
LOC100517809	-2060	-2050	+	4.85 GGAAGTTCCC
LOC100626147	-2154	-2144	-	5.38 GGAGGTTCCC
LOC100628139	-2144	-2134	+	4.85 GGAAGTTCCC
LOC102159591	-2026	-2016	+	5.38 GGGAACCTCC
LOC102162774	-2170	-2160	-	8.59 GGACATTCCC
LOC110257570	-2126	-2116	-	5.38 GGAGGTTCCC
LOC110260074	-2038	-2028	+	6.31 GGGAAGGCCC
LRP1B -2071	-2061	+	5.03	GGGAATTTTT
MIA -2008	-1998	+	5.18	GGGAACTCCT
MKI67 -2055	-2045	+	6.68	GGAGCTTCCC
MYO10 -2006	-1996	-	4.74	GAACAGTCCC
NAA16 -2178	-2168	+	5.38	GGGAACCTCC
NHSL1 -2055	-2045	-	5.18	AGGAGTTCCC
NRXN3 -2181	-2171	-	4.56	GAGAGTTCCC
PIWIL1 -2079	-2069	-	5.25	AGGCAGTCCC

PLEKHM1	-2045	-2035	-	7.07	AGGAAATCCC
PTPRE -2105	-2095	+	4.61	GGAAACTTCC	
SEPTIN11	-2079	-2069	+	7.45	GGGGCTGCCC
SH3PXD2A	-2157	-2147	-	5.29	AGAAGTTCCC
SLC35F3	-2153	-2143	-	5.18	AGGAGTTCCC
SPPL2C-2091	-2081	-	4.73	GGATGTTCCC	
SUGT1 -2106	-2096	+	4.67	GGGAACTTTC	
TEKT5 -2180	-2170	+	5.04	GGGAAAGACC	
TMEM132D	-2171	-2161	+	8.03	GGGAACTCCC
ZNF423-2153	-2143	+	8.03	GGGAACTCCC	

8 MA0161.1 NFIC 6.98267924778 0.5685040611 -1494:-1391 3.71405693001e-07

list of hits

ABCF2 -1405	-1399	+	5.83	CTGGCA
AKAP7 -1408	-1402	+	5.91	TTGGCT
ARFGEF3	-1435	-1429	-	5.91 AGCCAA
ARHGAP45	-1437	-1431	-	5.91 AGCCAA
AZIN2 -1399	-1393	-	6.73	TGCCAA
CAPRIN1	-1494	-1488	+	5.91 TTGGCT
CDC14A	-1408	-1402	+	5.83 CTGGCA
CHST15	-1481	-1475	-	6.73 TGCCAA
CHST15	-1468	-1462	+	6.73 TTGGCA
CHST15	-1411	-1405	+	5.83 CTGGCA
ELF1 -1391	-1385	-	5.83	TGCCAG
EXTL2 -1494	-1488	-	6.73	TGCCAA
FAM78A	-1475	-1469	+	5.83 CTGGCA
FMNL1 -1418	-1412	-	5.83	TGCCAG
GALNT10	-1395	-1389	+	6.73 TTGGCA
GCK -1485	-1479	-	5.91	AGCCAA
GIPC2 -1474	-1468	+	5.83	CTGGCA
GPR88 -1461	-1455	-	5.83	TGCCAG
GPR88 -1431	-1425	+	6.73	TTGGCA
HECW1-1446	-1440	+	5.91	TTGGCT
LMTK2 -1427	-1421	+	5.91	TTGGCT
LOC100155738	-1398	-1392	-	5.91 AGCCAA
LOC102160349	-1437	-1431	-	6.73 TGCCAA

LOC110257570	-1476	-1470	+	5.83	CTGGCA
MIA	-1462	-1456	-	5.83	TGCCAG
MIDN	-1394	-1388	+	5.83	CTGGCA
MRPS31		-1434	-1428	-	5.83 TGCCAG
NEK3	-1443	-1437	-	5.83	TGCCAG
NSF	-1494	-1488	-	5.83	TGCCAG
NSF	-1426	-1420	-	5.83	TGCCAG
PHACTR1		-1478	-1472	+	5.91 TTGGCT
RUNX1	-1468	-1462	-	5.83	TGCCAG
SELENOP		-1405	-1399	+	5.91 TTGGCT
SELENOP		-1393	-1387	-	5.83 TGCCAG
SLC35F3		-1447	-1441	-	5.83 TGCCAG
SLC35F3		-1427	-1421	-	5.83 TGCCAG
TECPR1		-1470	-1464	+	5.83 CTGGCA
VCAM1	-1484	-1478	+	5.91	TTGGCT
VPS36	-1494	-1488	-	6.73	TGCCAA

9 MA0161.1 NFIC 6.98267924778 0.5685040611 -388:-355 4.34227475947e-07

list of hits

AXL	-0376	-370	-	5.83	TGCCAG
AXL	-0362	-356	-	6.73	TGCCAA
CFAP43	-0365	-359	-	5.91	AGCCAA
CLCN1	-0369	-363	-	5.83	TGCCAG
CLCN1	-0358	-352	-	5.91	AGCCAA
EIF2B2	-0369	-363	+	5.91	TTGGCT
FGF14	-0362	-356	+	5.83	CTGGCA
KPNA7	-0385	-379	+	5.83	CTGGCA
LOC100517809	-0382	-376	+	5.83	CTGGCA
LOC100517809	-0355	-349	+	5.83	CTGGCA
LOC100626147	-0372	-366	+	5.91	TTGGCT
LOC102160349	-0380	-374	+	6.73	TTGGCA
PHC2	-0371	-365	+	5.91	TTGGCT
PLPP7	-0380	-374	-	5.83	TGCCAG
POLR2E		-0367	-361	-	5.91 AGCCAA
RASGEF1B		-0369	-363	+	6.73 TTGGCA
SUGT1	-0365	-359	-	5.91	AGCCAA

TECPR1	-0360	-354	-	5.91	AGCCAA
WDR18 -0388	-382	-	5.91	AGCCAA	
WDR18 -0381	-375	-	5.91	AGCCAA	
ZBTB18	-0376	-370	-	5.83	TGCCAG
ZSCAN20	-0362	-356	+	5.91	TTGGCT

10 MA0061.1 NF-kappaB 13.3447617922 0.621052631736 -2732:-2562 4.79298688229e-07

list of hits

ABCF2	-2714	-2704	+	5.24	AGGAATTCCC
ACTN1	-2675	-2665	+	8.03	GGGAACTCCC
APC2	-2649	-2639	-	6.05	GTGATGCCCC
CAPRIN1	-2691	-2681	+	5.28	GGGAGCTTCC
CEP128	-2699	-2689	-	4.60	AGAAAGTTCC
CHST15	-2674	-2664	+	5.38	GGGAACCTCC
CLCN1	-2638	-2628	+	8.53	GGGGAGTTCC
CNMD	-2591	-2581	+	5.18	GGGAACTCCT
CSMD2	-2632	-2622	+	9.37	GGGGTTTTCC
CTNNA3	-2724	-2714	+	5.38	GGGAACCTCC
DOCK1	-2603	-2593	-	7.14	GGGCTTTCCC
DPH5	-2732	-2722	+	5.09	GGGGATCTCT
ECPAS	-2711	-2701	-	5.77	GGACCTCCCC
ELF1	-2729	-2719	+	8.14	GGGAACTTCC
FAM78A	-2648	-2638	-	4.63	GGAAGCCCCC
FMNL1	-2637	-2627	-	5.28	GGGCCGCCCC
FSTL3	-2633	-2623	+	7.45	GGGGCTCCCC
GCK	-2575	-2565	+	4.98	GGGGATGCCT
GHR	-2595	-2585	+	5.83	GGAGAATTCC
HEATR4	-2717	-2707	+	8.14	GGGAACTTCC
HIVEP1	-2644	-2634	+	4.85	GGAAGTTCCC
KPNA7	-2653	-2643	+	5.38	GGGAACCTCC
KPNA7	-2576	-2566	+	5.24	AGGAATTCCC
LOC100516852	-2569	-2559	+	4.58	GGAAGTCCCC
LOC100517809	-2690	-2680	-	6.43	GAGATTTCCC
LOC100517809	-2654	-2644	-	6.51	GGGTAATCCC
LOC100626147	-2688	-2678	+	7.14	GGGAAAGCCC
LOC102159591	-2562	-2552	+	4.45	GGGCTTTTCC

MAP3K14	-2671	-2661	+	5.38	GGGAACCTCC
MIA	-2728	-2718	-	5.32	GTAAGTTCCC
MIA	-2654	-2644	-	5.74	AGAGATTCCC
MIA	-2580	-2570	+	4.62	GGGAACACCC
MIDN	-2579	-2569	+	4.41	GGAGATGTCC
MKI67	-2582	-2572	-	9.63	GGAATGTCCC
MYO10	-2669	-2659	+	4.56	GGGAACTCTC
NAA16	-2719	-2709	-	5.41	TGAAATTCCC
ODF3L2	-2621	-2611	+	4.43	GGGAAAGTAC
OXCT1	-2673	-2663	+	8.38	GGGAGTTCCC
PHC2	-2584	-2574	-	4.69	GGACAGTTCC
PLPPR3	-2569	-2559	+	5.28	GGGACTCCAC
PRKG2	-2580	-2570	+	4.63	GGGGCTCCAC
PTPRE	-2639	-2629	-	4.58	GGGCAGTTCC
RIMBP2	-2638	-2628	-	4.67	GAAAGTTCCC
RUNX1	-2597	-2587	+	5.06	GGGGAGTTTC
SELENOP	-2562	-2552	+	6.60	GGGGAACCTCC
SH3PXD2A	-2683	-2673	+	5.25	GGGACTGCCT
STN1	-2726	-2716	+	4.85	GGAAGTTCCC
SUGT1	-2628	-2618	+	4.67	GGGAACTTTC
VCAM1	-2705	-2695	+	4.93	GGGATGTCAC
WDR18	-2577	-2567	+	7.25	GGGAAACTCC
ZNF423	-2643	-2633	-	5.85	GGAAAACTCC

11 MA0107.1 RELA 14.7568335332 0.5666666663438 -1976:-1791 7.76998620842e-07

list of hits

ABCF2	-1974	-1964	-	4.63	GGAAACCCGC
AKAP7	-1976	-1966	-	9.14	GGAAATTCAC
AKAP7	-1814	-1804	+	8.69	GTGGATTTC
ALDH6A1	-1926	-1916	-	3.85	GGCAACTCCA
AZIN2	-1846	-1836	-	7.94	GGAAAGTCAC
CHST15	-1853	-1843	-	4.35	GGAAAGCCTC
CLRN3	-1806	-1796	+	7.67	TGGAGTTCCC
CNMD	-1804	-1794	+	5.79	TTGAATTCCC
COL17A1	-1792	-1782	-	4.65	GGAAATTTCA
CPNE4	-1812	-1802	-	7.95	GGGAACTCCG

DOCK1	-1928	-1918	-	4.15	GGAATGCCAA
EIF2B2	-1900	-1890	-	7.67	GGGAACTCCA
FBXO3	-1961	-1951	+	7.39	TGGACTTCCC
FBXO3	-1840	-1830	+	3.85	TGGAGGTTCC
GCK	-1922	-1912	+	7.81	GGGAAATCCC
GHR	-1876	-1866	-	5.14	GGCAACTCCC
GHR	-1816	-1806	-	7.22	GGGAACCCCA
GRIA1	-1910	-1900	+	4.76	TGGAAGTTCC
HIVEP1	-1827	-1817	-	7.67	GGGAACTCCA
ITGA11	-1798	-1788	-	5.23	GGAAAGTCCT
KPNA7	-1966	-1956	-	4.16	GGAAAAGCCC
KPNA7	-1798	-1788	-	4.58	TGAAACCCCC
LOC100516852	-1929	-1919	-	7.67	GGGAACTCCA
LOC100517809	-1800	-1790	+	5.03	GGAAGTTTCC
LOC100626147	-1954	-1944	+	3.99	GGGAACTCCC
LOC100628139	-1942	-1932	+	6.05	GGGAACTTCC
LOC102159591	-1861	-1851	+	3.85	TGGAGGTTCC
LOC102162774	-1809	-1799	+	9.87	GGGAAATTCC
LOC110257570	-1924	-1914	+	3.99	GGGAACTCCC
LTBP2	-1974	-1964	-	10.74	GGAAAGTCCC
MAP3K14	-1791	-1781	+	4.41	GGGGCTTGCC
MAPT	-1862	-1852	+	4.31	TGGGAGTTCC
MKI67	-1976	-1966	+	3.57	CGGGGTTTGC
MTUS2	-1927	-1917	-	4.65	GGAAATTACA
MYO10	-1953	-1943	+	4.76	TGGAAGTTCC
NAA16	-1969	-1959	-	4.29	GAAAAGCCCC
NALCN	-1886	-1876	-	5.03	AGAAACTCCC
NALCN	-1791	-1781	-	3.54	GGGAGTCCCC
NEXN	-1946	-1936	-	3.85	GGAACCTCCA
NHSL1	-1852	-1842	-	3.85	GGAACCTCCA
NRXN3	-1874	-1864	-	4.43	GGGAACCCAA
NSF	-1932	-1922	+	4.88	CTGACTTCCC
OXCT1	-1889	-1879	+	6.07	CTGAAATTCC
PHC2	-1832	-1822	-	3.51	GGAAAGTCTA
PLPPR3	-1841	-1831	+	3.81	CTGATATTCC
POLD2	-1959	-1949	-	4.59	GGGAAGTCAA

PRKG2	-1826	-1816	+	4.41	GGGGCCTTCC
RGS6	-1853	-1843	+	3.85	TGGAGGTTCC
RIMBP2		-1809	-1799	-	5.60 GGAACCTCCC
SEPTIN11		-1864	-1854	+	3.93 GCGAATTCCC
SH3PXD2A		-1873	-1863	+	7.22 TGGGGATTCC
SLC35F3		-1950	-1940	-	3.85 GGAACCTCCA
SORCS3		-1962	-1952	-	7.78 GGAAACCCAC
SUGT1	-1891	-1881	+	4.20	TGGGATATCC
TEKT5	-1846	-1836	+	4.76	TGGAAGTTCC

12 MA0155.1 INSM1 14.8617070481 0.666666670392 -1338:-1299 8.6290978842e-07

list of hits

AKAP7	-1332	-1320	+	6.99	AGCCAGGGGTCT
AZIN2	-1320	-1308	+	6.16	GGGCTGCGGGCA
AZIN2	-1300	-1288	+	3.71	GGCGTGGGGTCA
CEP128	-1325	-1313	+	9.31	TGGCTGGGGGAG
CHD6	-1333	-1321	+	3.93	GGCCAGGGATCA
CHST15		-1315	-1303	-	3.67 TAACCTCAGGCA
FGF14	-1323	-1311	-	3.82	CACCTCCAGCCA
FMNL1	-1338	-1326	+	3.76	GGTCTGAGGGTG
GALNT10		-1331	-1319	+	5.34 TGCCAGAGGGTA
GALNT10		-1314	-1302	-	4.28 TGACCCCGGGAA
KPNA7	-1311	-1299	+	6.29	ATCCTGGGGTCA
LOC100155738	-1323	-1311	+	4.30	GCGCAGGGGGCG
LOC102160938	-1317	-1305	+	7.35	GGCTAGGGGTTG
LOC110255332	-1301	-1289	+	6.74	GGCTAGGGGTCT
LOC110260074	-1320	-1308	+	5.58	TGCAAGTGGGCA
MAP3K14		-1317	-1305	-	6.57 CTACCCCTTCCC
MAP3K14		-1299	-1287	-	3.71 CACCCCAACGCC
MIDN	-1299	-1287	+	5.27	TGTCTGGGTGTG
PHC2	-1319	-1307	+	7.35	GGCTAGGGGTTG
PLPPR3	-1303	-1291	-	3.93	TGATCCCTGGCC
SEPTIN11		-1335	-1323	-	4.62 TCCCCCAGGCC
SKOR1	-1337	-1325	-	6.17	CTCCCCCAACCC
SMURF1		-1305	-1293	+	4.56 TGCAAGGGCTCA
SORCS3		-1309	-1297	+	3.93 GGCCAGGGATCA

TECPR1	-1299	-1287	+	4.40	TTTCAGTGGGTG
ZSCAN20	-1338	-1326	-	3.59	CAACACCTTGCA

13 MA0002.2 RUNX1 10.4014248352 0.501590918453 -1522:-1399 3.44306071506e-06

list of hits

ABCF2	-1493	-1482	-	6.36	ACGCCACAGGC
ABTB2	-1479	-1468	+	7.47	TTTTGCGGTTT
CDC14A		-1518	-1507	-	5.76 AGACCAGAGGG
CFAP43	-1414	-1403	+	6.03	TTCTGTGGATT
CHD6	-1418	-1407	-	6.91	GAGCCACAGCA
CHST15		-1406	-1395	+	5.77 ATTTGTGTTTA
CNMD	-1489	-1478	-	6.29	TAACCACTGAG
DOCK1	-1499	-1488	-	6.32	ACGCCACAGCC
DOCK1	-1460	-1449	-	5.97	ACACCACAGTT
DOCK1	-1403	-1392	-	6.47	AACCCACATCC
EMP2	-1426	-1415	-	6.50	AAACCTCAGGT
ENPP1	-1522	-1511	-	8.40	AAACCACATAA
ENPP1	-1408	-1397	+	7.10	TTTTGTGTTTT
EPB41L2		-1399	-1388	-	6.23 CAGCCACAGTT
GALNT10		-1432	-1421	+	7.00 ATCTGTGTTTT
GHR	-1480	-1469	-	6.91	GAGCCACAGCA
GHR	-1440	-1429	-	6.65	ACACCACAGCT
GIPC2	-1494	-1483	+	7.49	TGCTGTGGCTG
GIPC2	-1427	-1416	+	7.04	TGCTGTGGGTG
HECW1	-1514	-1503	+	5.77	AACTGTGGGTG
ITGA11	-1440	-1429	-	8.17	AAACCACATGC
KPNA7	-1519	-1508	-	5.71	AAAGCACAGCT
LOC100626147	-1405	-1394	+	7.49	TGCTGTGGCTG
LOC102159591	-1514	-1503	-	7.52	ACACCACAGCC
LOC102162774	-1454	-1443	+	7.05	CTTTGTGTTTT
LOC110257570	-1496	-1485	+	8.33	GTCTGTGGCTG
LOC110260074	-1429	-1418	+	6.74	GGCTGTGGCCG
LTBP2	-1447	-1436	-	8.61	GAACCACAGAG
MAP3K14		-1478	-1467	-	5.81 TAACCACTAAG
MAPT	-1417	-1406	+	6.65	AGCTGTGGTGT
MIA	-1440	-1429	+	5.77	CACTGTGGCAT

MYO10	-1470	-1459	+	5.97	ATTTGTGGTGA
NEXN	-1492	-1481	+	5.94	ACCTGTGGCAT
NEXN	-1434	-1423	-	6.32	ACGCCACAGCC
NHSL1	-1487	-1476	-	6.86	AAACCACTGGC
NSF	-1445	-1434	-	6.43	ATACCACAGTT
PLEKHM1		-1402	-1391	+	6.29 CTCAGTGGTTA
PLPP7	-1498	-1487	-	8.64	AACCCACAGGC
PLPPR3	-1505	-1494	-	7.59	CAACCACACAC
POLR2E		-1402	-1391	+	5.87 GGCTGTGGGGT
POMP	-1476	-1465	-	6.55	AAACCTCAAGG
PRMT8	-1466	-1455	+	6.60	CTCTGGGGTTA
SH3PXD2A		-1469	-1458	+	8.02 GCCTGTGGTAT
SLC35F3		-1480	-1469	-	6.70 CTACCACAGCC
SORCS3		-1400	-1389	-	7.52 ACACCACAGCC
TEKT5	-1502	-1491	+	8.21	CTTTGTGGTCA
WDR18	-1435	-1424	+	7.83	TGTTGTGGGTT
ZBTB18		-1521	-1510	+	8.84 TTTTGTGGCTT
ZNF423	-1515	-1504	-	6.06	AGACCAGAGCC
ZNF423	-1469	-1458	-	6.65	ACACCACAGCT
ZSCAN20		-1411	-1400	+	5.97 AGTTGAGGTTT

14 MA0104.2 Mycn 11.1040870395 0.698630136997 -1544:-1262 3.72162863451e-06

list of hits

ABTB2	-1435	-1425	+	5.69	TGCACGTGTG
ACTN1	-1500	-1490	-	5.85	ACCATGTGCA
ARHGAP45		-1387	-1377	+	5.68 CACACGTGCA
ARHGAP45		-1326	-1316	+	5.71 GCCACATGGT
AXL	-1518	-1508	+	7.09	ACCACGTGCA
AXL	-1502	-1492	+	6.35	TGCACGTGCA
AXL	-1414	-1404	+	5.69	GGCACATGGA
CFAP43	-1460	-1450	-	6.72	GCCACCTGCT
CLRN3	-1530	-1520	-	7.92	GCCATGTGGG
CNOT6L		-1536	-1526	+	5.37 AGCATGTGGA
CNOT6L		-1449	-1439	+	6.13 TCCACGTGTT
CNOT6L		-1280	-1270	-	7.77 GCAACGTGGG
CSMD2	-1455	-1445	+	7.05	GGCACGCGGA

DPF3	-1509	-1499	-	6.62	GCCACGTTCG
FAM78A		-1519	-1509	+	7.15 TGCACGAGGC
FASTK	-1370	-1360	+	6.82	AGCACGTGCG
FASTK	-1277	-1267	+	7.42	GCCACGTGTC
FSTL3	-1422	-1412	-	5.84	GCCACCTGCA
FSTL3	-1412	-1402	-	5.49	GCCTTGTGCT
GHR	-1433	-1423	+	6.49	AGCTCGTGGC
GHR	-1375	-1365	-	5.55	TCCTCGTGGA
GIPC2	-1274	-1264	-	5.53	ACCACATGCT
GPR88	-1423	-1413	+	6.82	AGCACGTGCG
ITGA11	-1438	-1428	+	6.01	ACCACATGCC
LOC100155738	-1376	-1366	+	5.43	GGCGCGCGGC
LOC100626147	-1351	-1341	-	5.69	TCCATGTGCC
LOC110255332	-1321	-1311	-	6.74	GCAGCGTGCG
LOC110257570	-1507	-1497	+	5.65	CCCACGTTTC
MYO10	-1303	-1293	+	5.64	ATCACGTGCT
NEXN	-1290	-1280	+	5.55	GCCACGAGGA
NRXN3	-1263	-1253	-	6.05	GGCATGTGGG
NSF	-1539	-1529	+	5.69	GGCACATGGA
ODF3L2		-1291	-1281	+	8.22 GGCACGTGGA
PLPP7	-1262	-1252	+	6.62	CCCAGGTGGC
RAD51B		-1544	-1534	+	5.48 GTCACGTGAC
RAPGEF1		-1417	-1407	+	8.22 GGCACGTGGA
TECPR1		-1318	-1308	+	5.86 ACCACGTTGG
TEKT5	-1330	-1320	+	6.97	CTCACGTGCC
TMEM132D		-1458	-1448	-	6.62 GCCACGTTCG
ZBTB18		-1400	-1390	+	5.64 TACACGTGAC

15	MA0003.1	TFAP2A	7.8120920509	0.800000024164	-3038:-2945	4.29155976162e-06	
		list of hits					
		ABCF2	-3000	-2991	+	7.06 GCCGGGGGG	
		ADGRD1		-2965	-2956	+	6.52 GCCTGGAGG
		APC2	-2983	-2974	+	6.24 GCCTCAAGC	
		ARHGAP45	-3035	-3026	+	7.29 GCCCGAGGG	
		ARHGAP45	-2982	-2973	+	6.82 GCCTTGGGG	
		AXL	-3002	-2993	+	6.79 GCCGCAGGG	

AXL	-2992	-2983	+	6.71	GCCCTGAGG
AXL	-2964	-2955	+	6.12	GCCAGAGGC
CDC14A		-3026	-3017	+	6.02 GCCTCCAGC
ECPAS	-2951	-2942	-	6.87	GCTCGGGGC
ENPP1	-2998	-2989	+	7.47	GCCCGGGGC
ENPP1	-2967	-2958	+	7.04	GCCGGGGGC
FAM78A		-3014	-3005	+	6.57 GCCTCCGGG
FAM78A		-2966	-2957	+	6.14 GCCCTGCGC
FAM78A		-2945	-2936	+	6.32 GCCCCGCGG
FASTK	-3036	-3027	+	7.29	GCCCGAGGG
FMNL1	-3024	-3015	-	6.57	CCCGGAGGC
FSTL3	-3029	-3020	+	6.52	GCCCGCAGC
GIPC2	-2980	-2971	+	6.10	GCCGGCAGG
GPR88	-2970	-2961	-	6.13	CCCTCTGGC
HECW1	-2968	-2959	+	6.09	GCCTTAAGG
LOC100516852	-3036	-3027	+	6.01	GCCCTTGGG
LOC102160938	-2947	-2938	+	6.45	GCCCCCAGC
MKI67	-2962	-2953	+	6.14	GCCCAAGGG
MRPS31		-2956	-2947	+	6.27 GCCGTGAGC
PLPP7	-2976	-2967	-	6.52	CCTCCAGGC
POLR2E		-3011	-3002	-	6.52 CCTCCAGGC
POMP	-3038	-3029	+	6.86	GCCTGAGGG
RAD51B		-2986	-2977	-	6.27 GCTCACGGC
SLC35F3		-3001	-2992	-	7.29 CCCTCGGGC
ZNF423	-3011	-3002	-	6.27	GCTCACGGC

16 MA0149.1 EWSR1-FLI1 32.8714828257 0.554497355492 -2796:-2727 4.35448048599e-06

list of hits

ABCF2	-2733	-2715	+	-9.14	GGAGTTAAGAAAAGAGAG
ACTN1	-2745	-2727	+	-9.24	TGAGTGAGGCCAGGAATC
ADGRB3		-2788	-2770	+	-7.50 TGAAAGAGGGCAAGGAAG
AGAP3	-2790	-2772	+	-7.52	GGGTGTGGGCAAAGAAGG
APC2	-2789	-2771	-	-8.65	CACCCCTCCCCACCTCC
APC2	-2766	-2748	-	-4.25	CATTCCTTCTCACCTGTC
AZIN2	-2781	-2763	+	-1.51	GGGAGAAATAAAGCCAGG
CHD6	-2767	-2749	-	2.42	CAAACCTACCTTCCCTCC

CHD6	-2747	-2729	-	-6.22	ACTTCTGGCCCCCCTCC
CLRN3	-2788	-2770	+	-9.02	GTTAAAAAGCAAGAAAGA
COL17A1		-2733	-2715	+	-6.38 GGAACCTGGGAAGGACTG
COL19A1		-2753	-2735	+	-9.42 CCAGGAAGGGAAGCAAAC
CSMD2	-2760	-2742	-	-4.24	TCCTACTTCCCTCCTTAA
DPF3	-2785	-2767	-	-4.65	GCTTCTCTCTTTTCTTTC
ENPP3	-2773	-2755	+	-1.82	GGAATAATAAAGGAAGG
FGF14	-2729	-2711	-	-7.93	ATTTGCATCTTTTCTTCG
FMNL1	-2729	-2711	-	-5.84	GCTTCCTGCCCCCGGCC
GALNT10		-2727	-2709	-	-8.82 TTCTCCTTGGCCCCTTGC
GRIA1	-2793	-2775	+	12.41	GCAAGCAAGGAAGGAAGG
GRIA1	-2772	-2754	+	-6.36	AGCAGGAGGAAAGGAACA
GRIA1	-2749	-2731	+	-5.05	AACAGAGAGGAAGAAAGG
HEATR4		-2729	-2711	+	-6.52 GGAAAAAATTAAGGGAAC
ITGA11	-2745	-2727	+	-8.68	GGCTTGGGTGAAGGAATG
LOC100155738		-2757	-2739	+	-9.17 GAGACAAGTCAAGGAGGG
LOC100628139		-2763	-2745	-	-8.40 CCTTTCCTCATGCTGTCC
LTBP2	-2754	-2736	-	-5.76	GATACCAGCCTTCCCTAC
MKI67	-2795	-2777	-	1.46	CGATCCGGCCCTCCTTCC
NALCN	-2781	-2763	-	-8.95	AGTGGGTTCCTACTTTCC
NRXN3	-2728	-2710	-	-2.61	TATACCCTCCTACCCTCC
ODF3L2		-2737	-2719	-	-3.65 CATTCCCTCCTCAGTCCC
PCNX2	-2773	-2755	-	-6.92	ACTTCCTCCCCCTCCCTC
PHC2	-2734	-2716	+	-9.36	AGGTGAATGGCAGGATGG
PID1	-2738	-2720	-	-8.48	CTTTTTTTTTTTCCTGCC
PIWIL1	-2785	-2767	+	-8.57	CAAACCTGAGGAAAGAAAG
PIWIL1	-2764	-2746	+	5.17	GAAAGGAAGGAATAAAGA
PIWIL1	-2744	-2726	+	7.81	GAAAGAAAGGAAAGAAAG
POLD2	-2755	-2737	-	-9.46	CTCTCTTGCTTTCCTGAC
POLR2E		-2791	-2773	-	-8.31 TGCACCTCTCTCCTTCT
POLR2E		-2771	-2753	-	6.40 GTTTCCTCCCCTCCTCCC
PRKG2	-2793	-2775	+	-7.20	GAAGGTAACCCAGGACGG
RAD51B		-2793	-2775	+	-3.45 AGCAAGAAGGGAGCAGGG
RASGEF1B		-2778	-2760	-	-6.88 CCCACACCCCTCTTTCC
RASGEF1B		-2750	-2732	-	-9.27 GACGCCTTCCTCTAATCC
SLC46A3		-2796	-2778	+	-7.15 AGACCAAAGGGAGGGAGG

SMURF1	-2760	-2742	-	-1.79	CCTTCCCCACTTCTTTGC
TRMT13	-2784	-2766	-	-8.70	CCTTTCTGTTTTCCTTAT
ZNF423-2733	-2715	+	-7.22	AGGGGAGAGACAGGAAGG	

17 MA0002.2 RUNX1 10.4014248352 0.501590918453 -2609:-2522 5.37257450666e-06

list of hits

ABCF2	-2566	-2555	+	7.49	TGCTGTGGCTG
ADGRB3	-2585	-2574	+	8.97	TCCTGTGGTCT
AKAP7	-2590	-2579	+	8.69	TGCTGTGGTTG
ARFGEF3	-2523	-2512	+	5.75	TGCTGTGTTTG
AZIN2	-2579	-2568	+	5.94	GCCTCTGGCTT
AZIN2	-2525	-2514	-	5.61	AGACCAGAAGC
BMP3	-2553	-2542	-	5.94	ATGCCACAGGT
CLCN1	-2540	-2529	+	6.65	AGCTGTGGTGT
CNMD	-2609	-2598	-	5.75	TAACCACTGAT
CPNE4	-2554	-2543	+	7.59	CTTTGTGGGTA
CSMD2	-2596	-2585	-	5.95	GGACCACACAC
CSMD2	-2570	-2559	-	6.53	TGCCCACAGCA
DPH5	-2524	-2513	+	6.10	TTTTGTGGGAT
EIF2B2	-2599	-2588	+	5.65	TTCTGTGTCTA
EPB41L2	-2578	-2567	+	8.68	CCCTGTGGTTG
GPR88	-2560	-2549	-	5.85	GGGCCACAGGG
HEATR4	-2607	-2596	-	6.00	ATCCCACAGAT
HIVEP1	-2597	-2586	-	6.84	ACACCACAGTC
KPNA7	-2530	-2519	+	7.46	TTCTGTGGCTC
LOC100626147	-2531	-2520	+	5.88	TTGTGTGGGCT
LOC102159591	-2608	-2597	-	5.74	TAACCACTGCG
LOC102160349	-2531	-2520	-	6.25	AAACCCCAGCT
LOC102160938	-2545	-2534	-	5.61	TAGCCTCAGAG
LTBP2	-2592	-2581	+	6.19	CATTGCGGTTT
MIDN	-2594	-2583	+	6.16	GCCTGTGTCTT
NALCN	-2557	-2546	-	6.47	AACCCACATCC
NRXN3	-2536	-2525	-	5.87	ACCCACAGCC
OXCT1	-2562	-2551	+	6.65	AGCTGTGGTGT
OXCT1	-2522	-2511	+	7.49	TGCTGTGGCTG
PCNX2	-2574	-2563	-	6.80	GACCCACAAAC

POLD2	-2608	-2597	-	5.68	AACCCAAAGAC
POMP	-2576	-2565	+	6.91	AGCTGTGGCTG
POMP	-2559	-2548	-	7.52	ACACCACAGCC
POMP	-2531	-2520	-	6.06	AAGCCACATCT
PTPRE	-2524	-2513	-	7.60	AGCCCACAGGC
RIMBP2		-2591	-2580	-	6.78 ATGCCACAGCC
RIMBP2		-2545	-2534	-	7.11 ATACCACAGCT
SELENOP		-2579	-2568	-	6.29 TAACCACTGAG
SPPL2C	-2543	-2532	+	7.16	GCGTGTGGCTT
TMEM132D	-2600	-2589	-	6.41	GAGCCACAAGG
VCAM1	-2531	-2520	-	5.54	CAACCAGAGCA
VPS36	-2568	-2557	+	6.84	GACTGTGGTGT
YLPM1	-2573	-2562	-	5.59	AAAACACACAG

18 MA0101.1 REL 10.514792431 0.558823538572 -1976:-1923 7.04078874674e-06

list of hits

ABCF2	-1974	-1964	-	6.86	GGAAACCCGC
ADGRD1		-1970	-1960	+	6.05 TGGTATTACC
AKAP7	-1976	-1966	-	6.96	GGAAATTAC
APC2	-1954	-1944	-	6.86	GGAATTCTCC
CHD6	-1956	-1946	+	6.11	TGGGGTTTCA
DOCK1	-1928	-1918	-	5.99	GGAATGCCAA
EMP2	-1939	-1929	-	6.00	GGATATACCC
FSTL3	-1949	-1939	-	6.09	GGAATGTTCC
GCK	-1923	-1913	+	6.80	GGGGAAATCC
KPNA7	-1966	-1956	-	7.37	GGAAAAGCCC
LOC100626147	-1953	-1943	-	7.49	GGAACCTCCG
LOC100628139	-1942	-1932	+	7.37	GGGAACCTCC
LOC110257570	-1923	-1913	-	7.95	GGAACCTCCC
LTBP2	-1974	-1964	-	9.45	GGAAAGTCCC
MTUS2	-1927	-1917	-	6.28	GGAAATTACA
MYO10	-1953	-1943	+	6.68	TGGAAGTTCC
NAA16	-1969	-1959	-	8.04	GAAAAGCCCC
NEXN	-1946	-1936	-	5.99	GGAACCTCCA
PRKG2	-1970	-1960	-	5.82	TGAAAGACCC
SLC35F3		-1950	-1940	-	5.99 GGAACCTCCA

SORCS3	-1962	-1952	-	6.86	GGAAACCCAC
WDR18 -1934	-1924	+	6.17	TCGGTTTTCC	

19 MA0076.1 ELK4 14.1232301212 0.583333336645 -2959:-2775 7.48972564466e-06

list of hits

ACTN1 -2775	-2766	-	8.42	GCTTCCGGC
ADGRD1	-2913	-2904	+	5.09 CCCGGAACC
AGAP3 -2959	-2950	+	5.25	ACCAGAAGT
AKAP7 -2821	-2812	+	3.94	ACCTGAAAT
ARFGEF3	-2793	-2784	-	5.25 ACTTCCAGT
BMP3 -2865	-2856	+	4.49	AACGGAAGC
CHD6 -2863	-2854	-	3.94	ATTTCTGT
CTNNA3	-2836	-2827	-	6.44 GGATCCGGT
ENPP3 -2919	-2910	+	3.94	ACTGGAAAT
FSTL3 -2788	-2779	+	3.63	GCCGGAAGG
HEATR4	-2936	-2927	-	4.37 CTTTCCGGT
LOC100626147	-2947	-2938	+	3.88 ACCTGATGT
LOC110257387	-2831	-2822	+	3.88 ACTGGATGT
MAPT -2827	-2818	+	4.49	ACAGGAAGC
NEK3 -2905	-2896	-	4.49	GCTTCTGGT
NSF -2950	-2941	+	3.88	ACCAGATGT
PHACTR1	-2845	-2836	+	5.36 GCCGGAAAA
PID1 -2928	-2919	-	4.38	GGATCCGGC
PRKG2 -2836	-2827	+	4.31	ACCGGATGG
RAPGEF1	-2918	-2909	-	10.48 GCTTCCGGT
RAPGEF1	-2808	-2799	+	4.49 ACAGGAAGC
SEPTIN11	-2897	-2888	-	4.49 GCTTCCAGT
SKOR1 -2926	-2917	+	3.94	ACAGGAAAT
SLC46A3	-2857	-2848	+	5.25 ACAGGAAGT
VPS36 -2784	-2775	+	4.49	ACCAGAAGC

20 MA0003.1 TFAP2A 7.8120920509 0.800000024164 -365:-328 8.16975421089e-06

list of hits

ABCF2 -0331	-322	-	5.91	CCCCTCGGC
ADGRB3	-0340	-331	+	6.94 GCCCGGAGC
AGAP3 -0338	-329	-	5.88	GCGCGCGGC

AXL	-0347	-338	+	5.79	GCCCAGAGC
AZIN2	-0333	-324	+	6.45	GCCCCCAGC
BMP3	-0331	-322	+	6.09	GCCGGCAGC
CAPRIN1		-0352	-343	-	6.64 CCCGCAGGC
CAPRIN1		-0339	-330	-	6.37 GCGCCGGGC
CSMD2	-0359	-350	+	5.90	GCCCCCCGG
DPH5	-0357	-348	+	5.81	GCCTGTGGG
ENPP1	-0363	-354	+	6.81	GCCTTGGGC
ENPP1	-0333	-324	+	5.79	GCCCAGAGC
EPB41L2		-0347	-338	-	6.52 CCTCCCGGC
EXTL2	-0356	-347	+	5.89	GCCGAGGGC
FASTK	-0344	-335	+	5.88	GCCGCGCGC
FGF14	-0353	-344	+	5.85	GCCTTCAGC
FMNL1	-0345	-336	+	5.99	GCCCTTGGC
FMNL1	-0332	-323	+	6.86	GCCTGAGGG
HIVEP1	-0344	-335	+	7.21	GCCCCAGGC
KPNA7	-0328	-319	-	5.91	CCCCTAGGC
LOC100516852	-0328	-319	+	6.47	GCCCCCAGG
LOC102160349	-0330	-321	+	6.16	GCCCCTGGC
LTBP2	-0352	-343	+	5.88	GCCTCGCGC
MAP3K14	-0345	-336	+	7.42	GCCCCGGGG
MIA	-0342	-333	+	6.09	GCCGGCAGC
MRPS31	-0364	-355	+	6.98	GCCGCGGGC
NALCN	-0358	-349	+	6.85	GCCGGAGGC
NPTX2	-0365	-356	+	6.11	GCCCCACGC
NSF	-0349	-340	+	6.82	GCCCTCGGC
OXCT1	-0346	-337	+	6.02	GCCTCCAGC
PLEKHM1	-0358	-349	-	6.82	CCCCACGGC
PLPPR3	-0328	-319	+	7.47	GCCCCGGGGC
POLD2	-0335	-326	+	6.39	GCCCCGGCGG
POLR2E		-0336	-327	+	5.99 GCCCTTGGC
POMP	-0361	-352	+	6.31	GCCCCGCGC
POMP	-0338	-329	+	6.31	GCCCCGCGC
PRMT8	-0331	-322	+	7.00	GCCCCCGGG
SH3PXD2A	-0363	-354	-	7.49	CCCCCGGGC
SLC35F3	-0351	-342	-	6.39	CCGCCGGGC

SMURF1	-0355	-346	+	6.39	GCCCGGCGG
SMURF1	-0345	-336	-	6.14	GCGCAGGGC
SMURF1	-0329	-320	+	6.39	GCCCGGCGG
TECPR1	-0348	-339	-	6.12	GCCTCTGGC
VPS36	-0364	-355	-	7.25	CCCCAGGGC
VPS36	-0333	-324	-	6.10	CCTGCCGGC

21 MA0101.1 REL 10.514792431 0.558823538572 -850:-786 1.47350658632e-05

list of hits

ABTB2	-0839	-829	+	7.77	GGGGCGTTCC
ACTN1	-0836	-826	-	9.63	GGAAATTCCC
ACTN1	-0808	-798	+	6.21	CCGGCATTCC
APC2	-0826	-816	+	6.21	CTGGCATTCC
AZIN2	-0833	-823	-	6.58	GGAAACCCCA
BMP3	-0820	-810	+	5.86	GGGTCATTTC
COL19A1	-0787	-777	-	6.17	GGAAACCACA
CTNNA3	-0839	-829	+	7.37	TGGCATTTC
ENPP1	-0797	-787	+	6.68	TCGGCTTTCC
EXTL2	-0845	-835	-	6.10	GGAAAGTCAA
GIMAP8	-0838	-828	+	6.68	TGGAAGTTCC
HECW1	-0794	-784	+	6.17	TTGGTTTTCC
KPNA7	-0841	-831	+	6.86	GTGGAATTCC
LOC102160938	-0786	-776	+	6.68	GGAGCATTCC
MRPS31	-0819	-809	+	6.17	TGAGAATTCC
NALCN	-0838	-828	+	5.81	CTGAGTTTCC
ODF3L2	-0798	-788	+	6.21	GGGAGTTTCA
PHACTR1	-0798	-788	+	6.68	TTGGCTTTCC
PID1	-0787	-777	-	6.77	GAAAAGTCCA
PLPP7	-0813	-803	-	6.17	GGAAAACACA
RAPGEF1	-0809	-799	+	9.35	GGGGCATTCC
SELENOP	-0850	-840	+	5.59	GTGAGATTCC
SLC35F3	-0828	-818	-	6.86	GGAAATCTCA
SPPL2C	-0802	-792	+	7.53	GGGGTTTACC
TEKT5	-0850	-840	+	7.37	GGGAACTTCC
TEKT5	-0796	-786	-	6.85	GAAAACCCCA

22 MA0061.1 NF-kappaB 13.3447617922 0.621052631736 -1363:-1266 1.72190904451e-05

list of hits

ABCF2	-1338	-1328	-	5.39	GGAGCGCCCC
AKAP7	-1343	-1333	-	8.50	AGAAATTCCC
CDC14A		-1320	-1310	+	8.10 GGGACTGCCC
CHD6	-1269	-1259	+	8.03	GGGAACTCCC
CHST15		-1286	-1276	-	8.12 AGAAAGTCCC
CPNE4	-1278	-1268	-	5.18	AGGAGTTCCC
DOCK1	-1356	-1346	+	8.14	GGGAACTTCC
DPH5	-1273	-1263	+	5.38	GGGAACCTCC
FAM78A		-1280	-1270	+	5.01 GGGAATGCTC
HEATR4		-1269	-1259	+	8.38 GGGAGTTCCC
HIVEP1	-1270	-1260	+	4.60	GGAACCTTCT
LOC100517809	-1266	-1256	+	8.14	GGGAACTTCC
LOC100626147	-1358	-1348	+	7.49	GGGGACTTCC
LOC102159591	-1360	-1350	+	8.03	GGGAACTCCC
LOC102159591	-1350	-1340	+	6.56	GGGATTTTTC
LOC102160938	-1328	-1318	-	5.38	GGAGGTTCCT
MKI67	-1335	-1325	+	5.84	GGGGAAACCC
NEXN	-1282	-1272	-	4.91	GAGAACTCCC
NRXN3	-1362	-1352	+	5.00	GGGACCCTCC
NSF	-1337	-1327	+	8.03	GGGAACTCCC
ODF3L2		-1284	-1274	+	4.87 GGAAATTCCT
PHACTR1		-1300	-1290	-	8.01 AGGAAGTCCC
PHC2	-1330	-1320	-	5.38	GGAGGTTCCT
PLPP7	-1340	-1330	-	4.73	GGAGGTCCCC
PLPP7	-1306	-1296	-	5.73	GGTCATCCCC
PLPPR3	-1363	-1353	-	6.60	GGAGTTCCCC
SEPTIN11		-1340	-1330	+	5.62 GGGAGTCCCC
SEPTIN11		-1316	-1306	-	5.63 AGGCATTCCC
SLC35F3		-1280	-1270	+	6.33 GGGAAGTTCT
SUGT1	-1277	-1267	+	4.85	GGAAGTTCCC
WDR18	-1359	-1349	+	4.85	GGAAGTTCCC
ZNF423	-1360	-1350	+	5.18	GGGAACTCCT

23 MA0014.1 Pax5 12.4319606142 0.575000002235 -652:-598 1.78432081388e-05

list of hits					
ABCF2	-0624	-604	+	7.43	CGGGCACCCGGGTGTGGCGG
ARHGAP45	-0652	-632	+	5.55	GGGGCACAGGGGGGTGACCG
AXL	-0649	-629	-	7.34	CTTCCCTGCCTCGCTGGCCC
AXL	-0602	-582	-	6.95	CCTTCCCCCTTCCCGGCCTC
BMP3	-0604	-584	-	5.34	CCTCCCTCCCTCACTCCCTC
CAPRIN1	-0607	-587	-	5.31	TTGCTCCCCCCCCCAACCCC
CHD6	-0613	-593	-	6.29	CCGCCCCGCCCCCTCAGCCC
CHST15	-0648	-628	-	6.38	TCTCTTTGCTGCATTAATCT
CLCN1	-0605	-585	+	5.41	TAACCCACTGAGCGAGGCCA
DPH5	-0633	-613	-	5.21	CCGCCCCCCTCCTGCGTCT
FGF14	-0623	-603	-	5.56	TCTCCATGCCTCCGAAGCTT
GIMAP8	-0637	-617	+	5.62	TGAAATGTCATGCATGAAGA
HECW1	-0608	-588	+	6.36	TGCTCAAGAGTGCATAACGT
ITGA11	-0625	-605	-	5.96	AGGGTCCTCCTGAATGCTTT
KPNA7	-0645	-625	-	6.52	TTTTCTTGCCTCGGTGCCTT
LOC100517809	-0634	-614	-	5.46	TGGCTTTGCTCAGTTGGCTA
LOC110257570	-0599	-579	-	8.32	TGGCTCCGCCCCAGCGGGCG
NRXN3	-0637	-617	-	7.20	CCTTTCCGCTCCCTCGGGCT
PIWIL1	-0633	-613	-	6.84	CCTCCCTCCTTCCCTACTCC
PLPPR3	-0638	-618	+	6.79	GGGGGAGGTGGGCGGGGCGG
PTPRE	-0619	-599	-	6.95	CTGTCCCGCCTTAGCGCCCG
RASGEF1B	-0598	-578	+	7.47	CAGGGAGGGAGGCGGGGCCG
SLC46A3	-0631	-611	-	8.84	CGGCCCTCTTCGGCGGTTC
TECPR1	-0645	-625	-	5.71	CCGGCTCTCCTCCGTCCTCA
WDR18	-0629	-609	+	8.05	GGAGTTCCCATGCGGAAACG
ZBTB18	-0624	-604	+	5.46	AGCGCCGGGAGGGAGGGAGG

24 MA0105.1 NFKB1 15.6269628514 0.757575756447 -2930:-2875 1.79870443393e-05

list of hits					
ACTN1	-2875	-2864	+	3.75	GGAGGTTCCCA
ALDH6A1	-2906	-2895	+	6.12	GGGAGACCCCT
ALDH6A1	-2890	-2879	+	5.77	GGGAAACTCCA
AXL	-2929	-2918	+	2.86	GGGGGTTTACT
CPNE4	-2929	-2918	+	5.82	GGGGAATTTCA
CTNNA3	-2926	-2915	+	7.59	GGGGAGTTTCC

ECPAS	-2916	-2905	-	3.60	GGGAGCTCGCC
ENPP1	-2924	-2913	+	4.31	GGGAGGGCCCT
FMNL1	-2885	-2874	+	4.85	GGCGGACCCCC
GALNT10		-2930	-2919	+	7.27 GGGGGAGCCCA
HEATR4		-2911	-2900	+	4.36 GGAAGTTCCCC
HECW1	-2927	-2916	+	5.22	GGGGGTCTTCT
LOC100516852	-2903	-2892	+	3.75	GGAGGTTCCCA
LOC100517809	-2880	-2869	-	4.50	GGGACATACCC
LOC100626147	-2895	-2884	-	5.65	TGGAACCTCCC
NPTX2	-2928	-2917	-	3.44	GCAGGATCCCC
POLD2	-2925	-2914	-	2.97	ACGGGACCCCC
SMURF1		-2910	-2899	+	2.79 TGGGAACCCCT
SORCS3		-2876	-2865	+	3.46 GGGGGAACCCA
SPPL2C	-2887	-2876	+	6.73	GGGAGTTTCCA

25 MA0145.1 Tcfcp2l1 11.6502911816 0.609628129495 -1120:-1054 2.64566133027e-05

list of hits

ABCF2	-1080	-1066	-	5.96	CTGGTTTTTCCAGG
ACTN1	-1076	-1062	+	5.78	GCTGTGCCAGCCAG
ARHGAP45	-1088	-1074	-	5.67	GTGGATGGACCTGG
AZIN2	-1108	-1094	+	7.47	CCAGTGCTGACCTG
CDC14A		-1077	-1063	+	5.65 CCGCCTGGGACCAG
CHD6	-1094	-1080	-	5.67	CTGCCATATGCTGG
CPNE4	-1120	-1106	-	7.10	GTGGCTTAGGCCGG
FASTK	-1104	-1090	-	7.95	CTGGGTCTGGCCGG
GALNT10		-1120	-1106	-	6.47 GTGGCATGGGCTGG
GIMAP8		-1054	-1040	+	5.61 CTAGTTGCATCCAC
HEATR4		-1112	-1098	-	9.34 CTGGTGTAGGCTGG
LOC102162774	-1092	-1078	-	9.34	CTGGTGTAGGCTGG
MIDN	-1109	-1095	+	6.00	CCATTCTCAGCCAG
MKI67	-1055	-1041	+	6.61	CCTGTCCCATCAGG
NPTX2	-1090	-1076	+	6.32	CCTGCCAAGCCCAG
NPTX2	-1074	-1060	+	6.43	CCTGCTGAATCAGG
PHACTR1		-1106	-1092	-	5.97 CAGGAATCAACTTG
PID1	-1088	-1074	-	5.78	CTGCATTGAGCAAG
PLPP7	-1082	-1068	-	5.58	CTGCCCTAAACCAG

PLPP7	-1062	-1048	+	5.92	CCACTTGGACCCAG
PTPRE	-1096	-1082	-	6.43	TTGGTCCAAGCTGG
RAPGEF1		-1118	-1104	-	5.51 CAGGCCTTGACCTG
RASGEF1B		-1089	-1075	-	6.96 CAGGCCATGTCTGG
RIMBP2		-1062	-1048	+	5.66 CTAGGTCCACCCAG
TECPR1		-1055	-1041	-	6.32 CTGGCTGTGCCAGG
TMEM132D		-1110	-1096	+	5.58 GCAGTGCCGGCCGG
TMEM132D		-1064	-1050	-	6.06 CTGGCGCGCGCAGG