

ANNEX 03 - Transcription factors identified from differentially expressed protein genes for number of teats (group 3), through an input file in Fasta format;
TFM Explorer

```
;Date      : Mon Nov  8 17:55:48 2021
;Scanned location  : -3000:300
;Scanned sequences : None (69 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	MA0003.1	TFAP2A	7.8120920509	0.800000024164	-2923;-2266	1.41508555035e-11
	list of hits					
	ADAM19	-2917	-2908	+	6.70	GCCCTGAGC
	ANKRD13D	-2768	-2759	+	6.87	GCCCCGAGC
	ANKRD13D	-2674	-2665	+	7.06	GCCGGGGGG
	ANKRD13D	-2581	-2572	-	7.25	CCCCAGGGC
	ANKRD13D	-2508	-2499	-	7.42	CCCCGGGGC
	ANKRD13D	-2351	-2342	+	6.32	GCCCCGCGG
	ARID1B	-2684	-2675	-	6.10	CCTGCCGGC
	ARID1B	-2556	-2547	-	6.28	GCTGAGGGC
	C2H1orf80	-2911	-2902	-	7.22	CCCTGGGGC
	C2H1orf80	-2333	-2324	-	6.29	CCTGAGGGC
	CATSPER1	-2538	-2529	+	7.22	GCCCCAGGG
	CHKA -2273	-2264	-	6.27	GCTCACGGC	
	CNPPD1	-2611	-2602	+	6.79	GCCTCAGGG
	CNPPD1	-2573	-2564	+	6.13	GCCAGAGGG
	DOCK1 -2793	-2784	-	6.03	CCTGGCGGC	
	DOCK1 -2373	-2364	-	7.25	CCCCAGGGC	
	GRK2 -2866	-2857	+	6.32	GCCTGAAGG	

GRK2	-2822	-2813	+	6.51	GCCTGGAGC
GRK2	-2747	-2738	+	6.07	GCCACAGGG
GRK2	-2483	-2474	-	6.10	CCTGCCGGC
IHH	-2649	-2640	+	6.27	GCCGTGAGC
KDM2A		-2526	-2517	-	6.02 GCTGGAGGC
LOC100525027		-2902	-2893	-	6.09 GCTGCCGGC
LOC100525027		-2856	-2847	+	6.63 GCCTGCGGC
LOC100525027		-2771	-2762	+	6.52 GCCGGGAGG
LOC100525027		-2565	-2556	+	6.51 GCCTGGAGC
LOC100525027		-2496	-2487	-	6.32 CCTTCAGGC
LOC100525027		-2389	-2380	-	6.67 GCTTGGGGC
LOC100525027		-2271	-2262	+	6.32 GCCCAGGGC
LOC102162264		-2332	-2323	-	6.79 CCCTGCGGC
LOC102162264		-2319	-2310	-	6.51 GCTCCCGGC
MKI67	-2662	-2653	+	6.14	GCCCAAGGG
MKI67	-2456	-2447	+	6.31	GCCCCGCGC
MKI67	-2266	-2257	-	6.61	GCCTAAGGC
NOXRED1		-2557	-2548	+	6.27 GCCGTGAGC
NRXN3	-2767	-2758	+	6.82	GCCTTGGGG
OXCT1	-2785	-2776	-	6.09	GCTGCCGGC
OXCT1	-2268	-2259	+	6.27	GCCGTGAGC
PACS1	-2498	-2489	+	6.32	GCCGGAAGG
PELI3	-2540	-2531	-	6.09	GCTGCAGGC
PITPNM1		-2851	-2842	-	6.32 CCTTCCGGC
PITPNM1		-2818	-2809	-	6.09 GCTGCCGGC
PITPNM1		-2700	-2691	+	6.45 GCCCCAGC
PITPNM1		-2688	-2679	-	6.08 ACCCCGGGC
PITPNM1		-2672	-2663	-	6.34 CCCCTGGGC
PITPNM1		-2558	-2549	-	6.10 CCTGCCGGC
PITPNM1		-2319	-2310	+	6.40 GCCGTCGGG
PITPNM1		-2304	-2295	+	6.51 GCCGGGAGC
PLCXD3		-2875	-2866	-	6.09 GCTGCCGGC
PNKD	-2916	-2907	-	6.27	GCTCAAGGC
PNKD	-2879	-2870	+	6.99	GCCCCGGC
PNKD	-2758	-2749	-	6.07	CCCTGTGGC
PNKD	-2698	-2689	+	6.10	GCCTGCAGG

PNKD	-2345	-2336	-	6.14	CCCTTGGGC
PPP6R2	-2425	-2416	+	7.42	GCCCCGGGG
PPP6R3	-2614	-2605	-	6.10	CCTGCAGGC
PPP6R3	-2584	-2575	+	7.22	GCCCCAGGG
PTPRE	-2911	-2902	+	6.18	GCCCCCTGGG
PTPRE	-2800	-2791	+	6.27	GCCTTGAGC
PTPRE	-2266	-2257	+	7.06	GCCTGGGGG
RAB1B	-2881	-2872	+	6.12	GCCCCACGG
RAB1B	-2782	-2773	+	6.24	GCCGCAAGC
RAB1B	-2686	-2677	-	6.71	CCTCAGGGC
RAB1B	-2543	-2534	+	6.09	GCCGGCAGC
RAB1B	-2434	-2425	-	6.26	CCTTGCGGC
RAB1B	-2396	-2387	+	6.71	GCCCTGAGG
RAB1B	-2347	-2338	+	6.47	GCCCCCAGG
RETREG2	-2900	-2891	+	6.86	GCCTGAGGG
RETREG2	-2520	-2511	+	6.12	GCCAGAGGC
RIN1	-2714	-2705	-	6.87	GCTCGGGGC
RIN1	-2659	-2650	+	6.32	GCCAGGGGC
RIN1	-2617	-2608	+	7.04	GCCTGGGGC
RIN1	-2572	-2563	+	7.04	GCCCTAGGC
RIN1	-2454	-2445	-	6.52	CCTCCAGGC
RRP15	-2314	-2305	+	7.00	GCCCCCGGG
SART1	-2908	-2899	+	6.09	GCCGGCAGC
SART1	-2773	-2764	+	6.31	GCCTGAAGC
SART1	-2363	-2354	-	6.64	CCCGCAGGC
SELENOP	-2362	-2353	-	6.27	GCTCACGGC
SF3B2	-2923	-2914	+	6.25	GCCACGGGC
SF3B2	-2494	-2485	+	6.99	GCCCCCGGC
SF3B2	-2381	-2372	-	6.82	GCCGAGGGC
SF3B2	-2372	-2363	-	6.45	GCTGGGGGC
SLC23A3	-2897	-2888	+	7.25	GCCCTGGGG
TGFB2	-2442	-2433	+	6.79	GCCTCAGGG
TMCC3	-2903	-2894	-	6.09	GCTGCCGGC
TMED8	-2901	-2892	+	6.27	GCCGTGAGC
TMED8	-2673	-2664	-	6.08	GCCCATGGC
ZDHC14	-2501	-2492	-	6.31	GCTTCAGGC

ZDHHC24	-2909	-2900	-	6.29	CCTGAGGGC
ZDHHC24	-2694	-2685	-	6.79	CCCTGAGGC

2 MA0107.1 RELA 14.7568335332 0.566666663438 -2989:-2720 1.27042180148e-09

list of hits

ADAM19	-2816	-2806	-	3.85	GGAACCTCCA
ANGEL1	-2805	-2795	+	7.67	TGGAGATTCC
ANGEL1	-2731	-2721	+	5.60	GGGGAGTTCC
ARHGEF10	-2727	-2717	-	3.85	GGAACCTCCA
ARID1B	-2985	-2975	+	4.70	TAGAATTTCC
C16H5orf34	-2831	-2821	+	11.93	GGGAATTTCC
CATSPER1	-2746	-2736	-	9.73	GGAAACTCCA
CHKA	-2949	-2939	-	3.85	GGAACCTCCA
CIPC	-2952	-2942	+	4.31	TGGGAGTTCC
CIPC	-2797	-2787	+	11.93	GGGAATTTCC
CLINT1	-2805	-2795	-	4.23	GGAAACACCA
CLRN3	-2856	-2846	-	5.08	GGAAACTCTC
CRADD	-2930	-2920	+	3.74	TGTAGTTTCC
CRADD	-2738	-2728	+	6.05	GGGAACTTCC
DOCK1	-2967	-2957	-	7.39	GGGAAGTCCA
DOCK1	-2894	-2884	-	4.31	GGCAATCCCA
DOCK1	-2775	-2765	-	6.77	GGAAACCCAG
IGF2R	-2947	-2937	+	4.76	TGGAAGTTCC
IGF2R	-2745	-2735	-	7.95	GGGAACTCCG
ISM2	-2745	-2735	-	3.85	GGAACCTCCA
KDM2A	-2904	-2894	-	4.81	GGGAAATCAC
KLC2	-2936	-2926	+	3.99	GGGAACTCCC
KLC2	-2768	-2758	+	4.37	AGGAATTCCC
LOC100514494	-2751	-2741	-	4.43	GGGAACCCAA
LOC102157641	-2826	-2816	+	4.88	TTGAGATTCC
NIM1K	-2750	-2740	-	4.29	AGAAAGCCCC
NPAS4	-2825	-2815	+	3.87	GGGAAAATCC
OXCT1	-2822	-2812	+	6.05	GGGAAGTTCC
PITPNM1	-2728	-2718	+	5.49	GGGGATGTCC
PLCXD3	-2909	-2899	+	4.58	GGAGGTTTCC
PNKD	-2903	-2893	-	3.54	GGGACTCCCC

PNKD	-2860	-2850	-	5.72	GGAATCCCAC
PPP6R2	-2820	-2810	-	4.31	GGAACTCCCA
PPP6R2	-2722	-2712	-	8.21	GGAAAACCCG
PPP6R3	-2888	-2878	-	6.05	GGAAGTTCCC
PPP6R3	-2780	-2770	+	6.05	GGGAACTTCC
RETREG2		-2984	-2974	-	5.16 GGGAAGTTCAG
RETREG2		-2879	-2869	+	3.79 GGGATGTTCC
RETREG2		-2848	-2838	-	3.85 GGAACCTCCA
RIN1	-2813	-2803	+	6.49	CTGGCTTTCC
RRP15	-2948	-2938	+	6.17	GTGAGATTCC
SELENOP		-2949	-2939	+	3.79 TAGAGTTTCC
SEMA4D		-2741	-2731	+	5.60 GGGGAGTTCC
SF3B2	-2765	-2755	+	6.07	CTGAATTCCC
SLC29A2		-2925	-2915	-	6.42 GGAAAACCCAC
SLC29A2		-2720	-2710	+	4.76 TGGAAGTTCC
TMCC3	-2989	-2979	-	7.67	GGGAAGTCCA
TMCC3	-2940	-2930	+	3.85	TGGAGCTTCC
TMED8	-2800	-2790	-	3.85	GGAACCTCCA
VIPAS39		-2966	-2956	-	3.85 GGAACCTCCA

3 MA0061.1 NF-kappaB 13.3447617922 0.621052631736 -1922:-1500 9.13177453093e-09

list of hits

ADAM19	-1667	-1657	+	7.65	GGGACCTCCC
ANGEL1	-1892	-1882	+	6.48	GGGGAAGCCC
ANKRD13D	-1759	-1749	+	6.16	GGGACATTTC
ANKRD13D	-1687	-1677	+	5.66	GGGGAGGCCC
ARHGEF10	-1769	-1759	+	8.14	GGGAAGTTC
C2H1orf80	-1898	-1888	+	4.85	GGAAGTTCCC
C2H1orf80	-1699	-1689	+	5.25	GGGACTCCCT
CATSPER1	-1622	-1612	+	8.38	GGGAGTTCCC
CNPPD1	-1706	-1696	-	5.38	GGAGGTTCCC
CNPPD1	-1551	-1541	+	8.03	GGGAAGTCCC
CRADD-1523	-1513	-	5.38	GGAGGTTCCC	
CYFIP2 -1815	-1805	-	5.53	AGGAACTCCC	
DLGAP2	-1922	-1912	+	7.94	GGGGATCTCC
DLGAP2	-1722	-1712	+	4.59	GAGGATTCCC

DLGAP2	-1571	-1561	+	6.42	GGGAAGCTCC
EEA1	-1914	-1904	-	5.35	GGTCAGCCCC
FNDC9	-1902	-1892	+	7.19	GGGAAATTAC
FNDC9	-1502	-1492	-	5.39	GGAAAGACCC
GHR	-1634	-1624	+	6.00	GGGACTGACC
GRK2	-1882	-1872	+	8.03	GGGAACTCCC
IHH	-1694	-1684	+	7.18	GGGATTTTCT
IHH	-1664	-1654	-	4.71	AGAGAGCCCC
LOC100514494	-1731	-1721	+	5.38	GGGAACCTCC
LOC100514494	-1634	-1624	+	4.86	AGGACTTCCC
LOC100525027	-1828	-1818	-	4.63	GTGGAGCCCC
LOC100525027	-1526	-1516	+	4.85	GGAAGTTCCC
MKI67	-1755	-1745	+	6.68	GGAGCTTCCC
NIM1K	-1899	-1889	+	4.85	GGAAGTTCCC
NIM1K	-1697	-1687	+	5.18	GGGAACTCCT
NPAS4	-1904	-1894	+	4.85	GGAAGTTCCC
NPAS4	-1702	-1692	+	8.03	GGGAACTCCC
NPAS4	-1586	-1576	-	6.78	AGAATGTCCC
NRXN3	-1881	-1871	-	4.56	GAGAGTTCCC
OXCT1	-1588	-1578	-	5.41	TGAAATTCCC
PACS1	-1676	-1666	-	5.18	AGGAGTTCCC
PITPNM1	-1852	-1842	+	6.42	GGGAAGGTCC
PITPNM1	-1725	-1715	+	6.17	GGGGTCTTCC
PLCXD3	-1909	-1899	-	5.38	GGAGGTTCCC
PNKD	-1560	-1550	+	7.34	GGAAGTTCCC
PPP6R2	-1516	-1506	-	5.38	GGAGGTTCCC
PPP6R3	-1658	-1648	+	6.48	GGGGAAGCCC
PPP6R3	-1587	-1577	+	4.96	GGAAGTTTCC
PTPRE	-1805	-1795	+	4.61	GGAAACTTCC
RAB1B	-1529	-1519	-	4.96	GGTAATCTCC
RETREG2	-1864	-1854	+	5.61	GGAAATTACC
RETREG2	-1659	-1649	-	4.63	GAGCAGTCCC
RIN1	-1659	-1649	+	8.14	GGGAACTTCC
SAMD15	-1899	-1889	+	5.38	GGGAACCTCC
SELENOP	-1565	-1555	-	6.22	GGACTGCCCC
SEMA4D	-1856	-1846	-	5.39	GGAGCGCCCC

SF3B2	-1796	-1786	-	4.60	AGGCAGCCCC
SF3B2	-1577	-1567	-	5.38	GGAGGTTCCC
SLC23A3		-1783	-1773	+	4.85 GGAAGTTCCC
SLC23A3		-1582	-1572	+	8.39 GGGAATTCCT
SLC23A3		-1539	-1529	+	7.20 GGGGTGTTCC
SPATA17		-1662	-1652	-	5.38 GGAGGTTCCC
TGFB2	-1765	-1755	-	4.60	AGAAAGTTCC
TGFB2	-1689	-1679	+	5.38	GGGAACCTCC
TMCC3	-1500	-1490	-	4.98	GTTATTTCCC
TMEM181		-1771	-1761	+	5.38 GGGAACCTCC
TMEM181		-1530	-1520	+	7.38 GGGGACTCCC
VIPAS39		-1878	-1868	+	5.00 GGGACCCTCC
ZDHHC24		-1787	-1777	+	5.66 GGGGAGGCCC
ZDHHC24		-1582	-1572	+	5.08 GGGGTATCCT

4 MA0155.1 INSM1 14.8617070481 0.666666670392 -2221:-2115 2.6450962048e-08

list of hits

ADAM19	-2205	-2193	+	4.50	TGCCAGGGATTG
ANKRD13D	-2168	-2156	-	5.52	TGCCCCACTGCCA
ANKRD13D	-2126	-2114	+	4.78	TGCCTGGTGTCA
C16H5orf34	-2210	-2198	-	4.88	CGCCTCCAGACC
CATSPER1	-2136	-2124	+	7.35	GGCTAGGGGTTG
CHKA	-2115	-2103	+	6.38	GGGATGGGGTTG
CLINT1	-2212	-2200	+	3.69	ATTCTGCGGGTG
CNPPD1	-2221	-2209	-	3.74	CTGCCCCAGGAT
CNPPD1	-2142	-2130	+	3.74	ATGCTGGGGTCT
CYFIP2	-2131	-2119	+	9.93	TTCAAGGGGGCA
KDM2A	-2155	-2143	-	6.74	AGACCCCTAGCC
LOC100525027	-2158	-2146	-	3.94	AGCCCTCTGCCA
LOC100525027	-2140	-2128	-	3.78	CTCCCCCACCCA
MKI67	-2162	-2150	+	6.21	GGGCTGGGGCTG
NRXN3	-2145	-2133	+	3.93	GGCCAGGGATCA
PELI3	-2158	-2146	+	4.80	TGACTGGGGCCA
PLCD4	-2190	-2178	-	4.18	AAACCCCAGCCT
PLCXD3	-2129	-2117	+	5.52	TGCCAGTGGGTG
PNKD	-2195	-2183	-	7.72	CGCCCCCTGTCA

PTPRE	-2129	-2117	+	4.53	GTTCTGCGGGAG
RAB1B	-2190	-2178	-	3.43	TGACCCCTCCCC
RAB1B	-2175	-2163	-	7.76	CTCCCCCAGCCC
RBM14	-2168	-2156	+	4.78	TGCCTGGTGTCA
RETREG2		-2120	-2108	+	5.49 GGACTGGGGGCG
SART1	-2142	-2130	-	3.81	AAGCCCCAGGAC
SEMA4D		-2211	-2199	-	8.58 TGGCCCCAGAAA
SEMA4D		-2118	-2106	+	4.24 TACAAGGGGGAG
SF3B2	-2178	-2166	+	4.40	GGGGAGGGGGCA
SLC23A3		-2210	-2198	+	3.67 TGCCTGTGGTTA
SLC29A2		-2162	-2150	-	3.93 TGATCCCTGGCC
SPATA17		-2168	-2156	-	4.11 CGATCCCTGGCC
TMCC3	-2175	-2163	-	4.79	CACCTCCAGGCA
ZDHHC24		-2219	-2207	+	9.55 AGCCAGGGGGCA
ZDHHC24		-2140	-2128	+	3.61 GAGCTGGGGGCG

5 MA0162.1 Egr1 14.4555832005 0.739393945445 -2816:-2365 4.0097073161e-08

list of hits

ADAM19	-2801	-2790	+	7.83	CGCGGGAGCGG
ANKRD13D	-2587	-2576	-	5.14	CCGCCCCCCCCA
ANKRD13D	-2566	-2555	-	6.14	CCGCCCACAGC
ANKRD13D	-2512	-2501	-	4.47	TCTCCCCCGGG
ARHGEF10	-2816	-2805	+	6.02	GGTGTAGGTGG
C16H5orf34	-2581	-2570	+	4.38	AATGTGGGAGA
C2H1orf80	-2426	-2415	+	5.62	GATGTGGGTGG
CHKA	-2391	-2380	-	7.83	CCGCTCCCGCG
CLINT1	-2755	-2744	-	6.31	CCTCTCACACA
CLRN3	-2385	-2374	+	7.54	TGTGGGGGAGG
CLRN3	-2365	-2354	+	7.38	CGTGTAGGTGG
EEA1	-2812	-2801	+	4.04	CACATGGGCGT
EEA1	-2766	-2755	-	5.84	CCGCCTCCACC
GHR	-2764	-2753	+	4.93	CCTGTAGGTGG
GPATCH2		-2555	-2544	-	3.65 CCTCCTCCGGC
IGF2R	-2388	-2377	-	4.30	ACGCCTACCCT
ISM2	-2730	-2719	+	7.83	CGCGGGAGCGG
KDM2A		-2633	-2622	+	4.53 CCTGTAGGAGG

KLC2	-2658	-2647	-	3.54	CCTCCCCCCCCA
LOC100514494	-2810	-2799	+	6.10	ACCGGGGGGAGG
LOC100514494	-2766	-2755	-	5.62	CCTCCCCCACC
LOC102162264	-2488	-2477	+	9.07	ACCGTGGGCGT
MKI67	-2472	-2461	-	3.54	CCTCCCCCCCCA
MROH2B	-2438	-2427	+	4.15	AGCTTAGGCGT
NOXRED1	-2440	-2429	+	4.51	CGCGGGTGCGG
NPAS4	-2784	-2773	-	3.80	CGACCCCCGCA
NRXN3	-2444	-2433	-	5.95	ACTCTCCCGCT
PACS1	-2573	-2562	+	4.70	AGCGTGGGAGC
PACS1	-2467	-2456	+	3.96	TGTGGAAGTGG
PITPNM1	-2708	-2697	-	7.16	TCGCCCCCGCC
PITPNM1	-2517	-2506	+	6.82	GATGTGGGCGT
PPP6R2	-2671	-2660	-	5.94	GCACCCACGCA
PPP6R2	-2497	-2486	+	5.15	CACGTAGGAGA
PPP6R2	-2471	-2460	+	6.31	CCTGTGGGTGG
PPP6R2	-2423	-2412	+	6.39	CCCGGGGGGAGG
PTPRE	-2602	-2591	+	4.03	AGCGGGAGAGA
PTPRE	-2381	-2370	+	5.96	CGGGTGGGCGG
RAB1B	-2815	-2804	-	4.58	CCGCACACACA
RAB1B	-2489	-2478	+	3.80	TGCGTAGCTGG
RBM14	-2624	-2613	-	8.07	ACTCCCACT
RETREG2	-2610	-2599	-	3.57	ACACCCCAGC
RIN1	-2639	-2628	-	3.77	TCTCCTCCGTG
RIN1	-2497	-2486	-	7.38	CCACCCCCACG
RRP15	-2637	-2626	+	4.26	CACGTTGGCGT
RRP15	-2370	-2359	+	5.62	GGTGTAGGAGG
SAMD15	-2540	-2529	-	6.35	AACTCCCGCT
SART1	-2745	-2734	+	4.93	CCTGGGGGTGG
SART1	-2462	-2451	+	4.08	AGGGTGGGAGG
SART1	-2410	-2399	+	7.04	AGCGGGGGTGA
SF3B2	-2813	-2802	-	5.44	ACGCCCCCATC
SF3B2	-2617	-2606	-	5.95	CCTCTCCCGCT
SF3B2	-2551	-2540	-	6.23	ACTCTCCCGCG
SF3B2	-2511	-2500	-	7.88	CCACCCCCGCC
SF3B2	-2496	-2485	-	6.62	CCGCCCCCGGC

SLC23A3	-2725	-2714	+	4.04	CACGTGGGCCT
SLC29A2	-2656	-2645	-	4.15	CCGCCCCAGCT
TMCC3 -2681	-2670	-	7.54	CCTCCCCACA	
TMED8 -2785	-2774	+	7.83	CGCGGGAGCGG	
ZDHHC24	-2783	-2772	+	3.76	TGAGGAGGCGG
ZDHHC24	-2412	-2401	-	3.72	GCACCTACGCT

6 MA0105.1 NFKB1 15.6269628514 0.757575756447 -1588:-1513 4.44193904352e-07

list of hits

CNPPD1	-1552	-1541	+	4.50	TGGGAACCTCCC
CRADD-1523	-1512	+	3.75	GGAGGTTCCCA	
DLGAP2	-1571	-1560	+	4.87	GGGAAGCTCCA
GHR -1576	-1565	-	4.44	GGCAACTCCCC	
GHR -1517	-1506	+	2.79	AGGGAACCCCA	
IFT80 -1514	-1503	-	2.97	CCGGATCCCCC	
KLC2 -1513	-1502	+	4.27	GGGGGGCACCC	
OXCT1 -1588	-1577	-	5.82	TGAAATTCCCC	
PNKD -1561	-1550	-	5.65	TGGAACCTCCC	
PPP6R2 -1516	-1505	+	3.75	GGAGGTTCCCA	
RAB1B -1530	-1519	+	3.56	GGGTAATCTCC	
RIN1 -1578	-1567	+	4.55	GGGGAAGCCAC	
RIN1 -1519	-1508	+	3.60	GGGGAGCTCTC	
SELENOP	-1566	-1555	-	4.57	TGGAAGTCCCC
SEMA4D	-1519	-1508	-	4.48	TGAGCTCCCCC
SF3B2 -1577	-1566	+	3.75	GGAGGTTCCCA	
SLC23A3	-1582	-1571	+	4.96	GGGAATTCCTC
SLC23A3	-1540	-1529	+	6.98	GGGGGTGTTCC
TMEM181	-1531	-1520	+	3.90	TGGGGACTCCC

7 MA0162.1 Egr1 14.4555832005 0.739393945445 -878:-770 7.27292866089e-07

list of hits

ANKRD13D	-0778	-767	+	7.40	GGTGTGGGTGG
C16H5orf34	-0851	-840	-	5.72	ACACCTCCACT
C2H1orf80	-0863	-852	-	5.22	TCTCCCACATA
CATSPER1	-0835	-824	+	7.88	GGCGGGGGTGG
CHKA -0821	-810	-	9.06	CCGCCTCCGCG	

CHKA	-0770	-759	+	10.43	CGCGGGGGCGG	
CLINT1	-0848	-837	+	9.07	GGCGTAGGCGG	
CLINT1	-0790	-779	+	6.63	CGCGGGAGTGG	
DOCK1	-0841	-830	-	4.09	CCTCTCCCACT	
FNDC9	-0820	-809	-	3.94	CCTCCCAGGCT	
GRK2	-0785	-774	+	8.72	TCCGTGGGTGG	
KDM2A		-0874	-863	+	4.46	TGCGTGGCCGA
KDM2A		-0861	-850	+	4.15	AGCGGGGGCTT
KDM2A		-0797	-786	-	7.98	CCGCCCCCGGG
KDM2A		-0774	-763	-	6.63	CCACTCCCGCG
LOC100514494		-0853	-842	-	4.04	AAGCCCACGTG
LOC100525027		-0858	-847	-	3.90	CCACTTCCGCC
LOC100525027		-0840	-829	-	4.97	CCACTTCCGCT
PACS1	-0842	-831	+	6.56	AGTGTGGGTGA	
PLCXD3		-0823	-812	+	5.09	TCTGTAGGAGT
PNKD	-0829	-818	+	4.30	AGGGGGGGCGT	
RETREG2		-0783	-772	-	10.45	CCGCCCACGCC
SF3B2	-0867	-856	+	6.31	TGTGTGAGAGG	
SF3B2	-0797	-786	-	7.83	CCGCTCCCGCG	
TGFB2	-0854	-843	-	3.94	ACACCCCCTCA	
VIPAS39		-0797	-786	-	9.26	ACACCCACGCC
ZDHHC14		-0875	-864	-	5.96	CCGCCCACCCG
ZDHHC24		-0878	-867	-	9.07	CCGCCCCCGCC

8 MA0105.1 NFKB1 15.6269628514 0.757575756447 -2374:-2262 1.0637867227e-06

list of hits

ADAM19	-2343	-2332	+	3.75	GGAGGTTCCCA	
ANGEL1	-2268	-2257	+	4.01	GGAAATTTCCC	
CHKA	-2374	-2363	+	3.75	GGAGGTTCCCA	
CNPPD1	-2262	-2251	-	4.87	GGGACAACCCC	
DOCK1	-2304	-2293	+	3.71	TGGGCTTTCCC	
GHR	-2295	-2284	+	5.29	GGAGAATTCCC	
GRK2	-2325	-2314	+	4.50	TGGGAACCTCCC	
KDM2A		-2345	-2334	+	4.38	GAGGAGTTCCC
KLC2	-2291	-2280	+	10.38	GGGGAGTTCCC	
LOC100525027	-2337	-2326	+	5.17	GGGGGACACCC	

MKI67	-2283	-2272	-	4.20	TGGAATGTCCC
OXCT1	-2374	-2363	+	4.38	TGGGAGTTCCC
PITPNM1		-2333	-2322	-	3.29 GGAAGTGTCCC
PNKD	-2293	-2282	-	3.30	GGGCCAGCCCC
PPP6R3	-2358	-2347	-	4.18	TGAGCCTCCCC
RAB1B	-2323	-2312	+	4.55	GGTGAGCCCCC
RBM14	-2292	-2281	-	3.75	TGGGAACCTCC
RRP15	-2361	-2350	+	3.66	GGGGAGCTGCC
RRP15	-2307	-2296	+	5.05	GGGGGTGGCCC
SELENOP		-2262	-2251	+	7.83 GGGGAACTCCA
SLC29A2		-2295	-2284	-	4.54 TGAAAATTCCC
WTAP	-2368	-2357	-	3.40	TGGAAATCCTC

9 MA0055.1 Myf 15.9141418791 0.609375 -959:-896 1.24678504774e-06

list of hits

ADAM19	-0927	-915	-	4.75	CTGCTCCTCGTG
ANGEL1	-0940	-928	-	4.11	CAGCTGGTCCTG
CATSPER1	-0952	-940	+	3.71	GAGTAGCTGGAG
CATSPER1	-0928	-916	-	8.31	CAGCTGCTGGCC
CLRN3	-0914	-902	+	2.89	GACAAACTGCTG
EEA1	-0905	-893	-	3.97	CACCAGATCCTT
MKI67	-0898	-886	+	3.25	GAACAGCAGCTC
MROH2B	-0910	-898	+	3.71	GAGAAGCAGCAG
NIM1K	-0936	-924	-	4.11	CTGCACCTGCAG
NPAS4	-0955	-943	+	4.89	GGGCAGCCGCTG
NRXN3	-0946	-934	+	6.27	CAACAGCTGTTG
OXCT1	-0946	-934	+	3.40	AAGGAGCTGGTT
PACS1	-0930	-918	+	4.23	TGGCAAGTGCTG
PITPNM1	-0958	-946	-	4.38	CTGCCGCTGCCC
PITPNM1	-0908	-896	-	5.45	CTCCAGTGGCTG
PPP6R2	-0959	-947	-	5.95	CTGTAGCTGCCG
RAB1B	-0917	-905	-	6.14	CTGCAGCTTCTT
RETREG2	-0947	-935	+	2.71	AGGGAGAAGGTG
RIN1	-0957	-945	+	5.18	CCCCAGCAGCTG
TGFB2	-0896	-884	-	4.30	CTCCACCTCCTC
TMEM181	-0955	-943	+	3.51	GGACAGCTTCTG

WTAP	-0956	-944	-	5.95	CTGTAGCTGCCG
ZDHHC24		-0948	-936	-	3.71 CTGCTGCTTCTC
ZDHHC24		-0924	-912	+	5.70 CAGCAGCAGGTC
ZDHHC24		-0900	-888	-	5.55 CTCCTCCTGTTC

10 MA0105.1 NFKB1 15.6269628514 0.757575756447 -1069:-951 1.48239070801e-06

list of hits

C2H1orf80	-1068	-1057	+	3.57	GAGAGTCCCCC
CATSPER1	-1069	-1058	+	4.38	TGGGAGTTCCC
CHKA -1048	-1037	+	4.18	GTGAAATCCCC	
CHKA -0987	-976	+	8.65	GGGGAACCTCC	
CLINT1-1009	-998	+	4.38	GAGGAGTTCCC	
EEA1 -0990	-979	+	3.75	GGAGGTTCCTCA	
GRK2 -0965	-954	-	4.38	GGGAACTCACC	
IGF2R -0972	-961	+	6.48	GGGAAGTCTCC	
KDM2A	-0951	-940	+	4.27	GGGGGGCGCCC
LOC100525027	-0964	-953	+	5.17	GGGGGACACCC
MKI67 -1035	-1024	+	4.06	GGGGAAACCCT	
NPAS4 -1020	-1009	+	7.02	TGGGATTCCCC	
NPAS4 -0956	-945	-	2.98	GGGGCAGCCGC	
NRXN3 -1062	-1051	-	6.03	GGGACCCTCCC	
NRXN3 -0956	-945	+	4.38	GGGGAGTTCTC	
PELI3 -0994	-983	+	5.87	GGGAGGTCTCC	
PPP6R2 -1002	-991	-	5.21	TGGGGCCTCCC	
RAB1B -1064	-1053	-	3.00	GGGAGCCCGCC	
RBM14 -1006	-995	+	3.75	GGAGGTTCCTCA	
RIN1 -1050	-1039	+	3.02	GGGAAAGCTCT	
RIN1 -1019	-1008	-	5.42	TGGACCCCCCC	
SART1 -1024	-1013	+	4.50	TGGGAACTCCC	
TMEM181	-1047	-1036	+	2.98	GGGGCTGCCTC
WTAP -0987	-976	+	3.75	GGAGGTTCCTCA	
ZDHHC14	-0992	-981	+	3.03	GGGGCTGCGCC

11 MA0162.1 Egr1 14.4555832005 0.739393945445 -98:-11 2.12152461575e-06

list of hits

ADAM19	-0098	-87	+	4.52	TGTCTGGGCGT
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ANGEL1	-0092	-81	-	4.44	CCGGCCCCGCG
ANGEL1	-0015	-4	+	6.62	GCCGGGGGCGG
ANKRD13D	-0023	-12	-	4.44	CCGGCCCCGCG
ARID1B	-0096	-85	+	4.51	CGCGGGCGCGG
ARID1B	-0026	-15	+	4.75	CCTGGAGGCGG
CHKA -0081	-70	+	4.68	GGCGAGGGCGG	
CYFIP2 -0015	-4	+	5.40	AACGGAGGAGG	
DOCK1 -0031	-20	-	7.70	CCGCCTCCGCC	
EEA1 -0043	-32	+	4.68	GGCGCGGGCGG	
EEA1 -0014	-3	+	9.21	TACGGGGGCGG	
GHR -0071	-60	+	8.95	AGCGGGGGTGG	
IGF2R -0037	-26	-	7.54	CCGCTCCCGCT	
ISM2 -0081	-70	-	6.47	CCGCTCCCGCC	
KDM2A	-0079	-68	+	10.15	AGCGGGGGCGG
KDM2A	-0036	-25	+	4.30	AGGGGGGGCGG
KDM2A	-0020	-9	+	6.04	CGCGTCGGCGT
MKI67 -0011	0	+	4.66	CGCGGCGGCGG	
NIM1K -0073	-62	-	4.53	CCTCCCCCAGG	
NPAS4 -0086	-75	-	4.30	CCGCCCCCCT	
NPAS4 -0061	-50	-	4.86	CCCCCACGCC	
NRXN3 -0044	-33	+	7.00	TGTGTGGGAGA	
PACS1 -0091	-80	-	6.51	ACGCCCACCCA	
PNKD -0018	-7	+	8.55	AGCGGGGGAGG	
PPP6R2 -0049	-38	-	4.44	CCGCCCCGCGG	
PPP6R3 -0065	-54	+	4.87	GGCGGGAGAGG	
PPP6R3 -0036	-25	+	5.84	ACTGGGGGCGG	
PTPRE -0086	-75	-	8.23	TCGCCCCCGCT	
PTPRE -0057	-46	-	9.07	CCGCCCCCGCC	
PTPRE -0026	-15	+	7.46	CGCGGAGGAGG	
SLC23A3	-0097	-86	-	8.55	CCTCCCCCGCT
SLC29A2	-0083	-72	+	8.84	CGCGGGGGAGG
TGFB2 -0078	-67	-	7.46	CCTCCTCCGCG	
TMCC3 -0092	-81	+	5.88	CGCGTGTGCGG	
TMCC3 -0045	-34	-	9.07	CCGCCCCCGCC	
ZDHHC14	-0021	-10	+	4.66	CTCGGGGGCGG

12 MA0048.1 NHLH1 14.131557299 0.674382714037 -2400:-2229 3.56979755542e-06

list of hits

C16H5orf34	-2305	-2293	+	5.20	AACCAGCTGCAA
C2H11orf80	-2338	-2326	-	6.80	ACCCACCTGAGG
C2H11orf80	-2271	-2259	+	4.41	AAGCAGCAGTGA
CATSPER1	-2305	-2293	-	6.36	GCGCTGCTGGGA
CLINT1-2287	-2275	-	4.54	GTGAAGCTGCTT	
CLRN3 -2374	-2362	+	4.31	GCAGAGCTGCGT	
CNPPD1	-2397	-2385	+	4.34	ACTCAGCAGGTG
GHR -2381	-2369	+	5.35	CCGCAGATGCAG	
GPATCH2	-2387	-2375	+	6.03	TCACAGGTGCTC
GRK2 -2251	-2239	+	6.68	AAGCAGCAGCTT	
ISM2 -2301	-2289	+	7.42	CCGCAGGTGTGG	
KDM2A	-2240	-2228	+	5.88	CGTCAGCTGTGG
MKI67 -2315	-2303	+	4.39	GGGCAGATGGGC	
NOXRED1	-2348	-2336	+	6.04	GAGCAGGTGTTC
PACS1 -2400	-2388	+	4.56	GAGCACGTGCGG	
PITPNM1	-2299	-2287	+	4.62	GAGCTGCTGCTC
PITPNM1	-2240	-2228	-	4.25	GTGCAGGTGAGT
PLCXD3	-2377	-2365	+	6.06	TGGCAGCTGCAG
PNKD -2395	-2383	-	4.82	GCCCATCTGTGC	
PNKD -2261	-2249	+	5.65	CCGCACCTGCAC	
PPP6R3 -2368	-2356	-	4.55	CTCCAGCTGGTG	
PTPRE -2399	-2387	+	5.78	CCGCAGCAGGGA	
PTPRE -2295	-2283	-	5.28	GCCCTGCTGGGC	
RAB1B -2388	-2376	+	7.57	GCGCAGCAGCGA	
RAB1B -2328	-2316	+	5.11	CCCCAGGTGAGC	
RAB1B -2273	-2261	-	5.58	CCCCAGCTGGCT	
SART1 -2262	-2250	-	4.41	ATGCAGGTGAGG	
SART1 -2249	-2237	+	9.89	CAGCAGCTGGGT	
SEMA4D	-2371	-2359	+	6.63	GCTCAGGTGTGC
SF3B2 -2300	-2288	+	6.45	GCTCAGCTTCTC	
SLC29A2	-2342	-2330	+	9.60	CAGCAGCTGTGT
SLC29A2	-2229	-2217	+	9.00	CCCCAGCTGGGT
TMCC3 -2293	-2281	+	4.66	AATCAGCAGGGT	
TMEM181	-2306	-2294	+	5.13	GCACAGCTGTAG

ZDHHC24 -2229 -2217 + 4.54 TGGCAGCTGGAG

13 MA0092.1 Hand1::Tcf2a 10.1435823018 0.506896541268 -2058:-1937 4.12230613467e-06

list of hits

ARID1B	-2025	-2015	+	5.77	TATTTGGCAT
CLINT1-2058	-2048	-	8.01	AAGCCAGATT	
CLINT1-1976	-1966	+	5.96	TGTCTGCCAG	
CLRN3 -2039	-2029	-	7.07	GTTCCAGACT	
CNPPD1	-1947	-1937	-	6.87	AAGGCAGACA
CRADD-2058	-2048	+	7.57	AATCTGGATT	
DLGAP2	-2004	-1994	-	5.91	TTGGCAGATG
GHR -2021	-2011	+	6.57	TGTCTGGTTG	
KDM2A	-2057	-2047	-	7.32	GAGCCAGATG
KDM2A	-2035	-2025	+	7.79	CATCTGGCAG
KDM2A	-1939	-1929	+	6.38	GATCTGCATT
LOC100514494	-1986	-1976	+	6.08	TGACTGGATT
LOC100525027	-1943	-1933	-	5.96	CTGCCAGGCC
LOC102157641	-2010	-2000	-	5.91	ATCCCAGATT
LOC102162264	-2051	-2041	-	7.55	CAGCCAGATC
MKI67 -2008	-1998	-	5.91	ATACCAGGTC	
NRXN3 -2043	-2033	-	5.97	GCTCCAGACA	
PLCD4 -1978	-1968	+	5.85	TTTCTGGATC	
PNKD -1941	-1931	-	6.18	TTGCCAGTCC	
PPP6R2 -1961	-1951	-	6.97	TTGCCAGAAA	
PPP6R3 -1937	-1927	-	6.67	CTTCCAGAAC	
PTPRE -2050	-2040	-	5.96	GTGCCAGGCC	
RAB1B -1937	-1927	+	5.96	AGCCTGGCTT	
RBM14 -2051	-2041	-	7.11	CATCCAGATC	
RBM14 -1947	-1937	-	5.73	CAGCCAGAAT	
SAMD15	-1946	-1936	+	6.83	GTTCTGGCGT
SEMA4D	-1974	-1964	-	7.07	CTTCCAGACT
SLC29A2	-2034	-2024	-	7.15	TAACCAGACC
VIPAS39	-1989	-1979	+	9.39	GATCTGGCAT
WTAP -2058	-2048	+	9.39	GATCTGGCAT	

14 MA0163.1 PLAG1 19.3519112695 0.797619053296 -2278:-2217 6.26191847164e-06

list of hits					
ANGEL1	-2229	-2215	+	1.26	GTGGCCTAGTGGTT
ANKRD13D	-2271	-2257	-	2.13	CACACCAGGCACCC
ANKRD13D	-2227	-2213	+	1.45	GTGGGGGGCGGGGG
ARHGEF10	-2268	-2254	-	1.63	TACCTCTGGCCACC
CATSPER1	-2239	-2225	+	4.32	GGAGCGAACTGGGG
CNPPD1	-2228	-2214	-	0.96	ACCCCCTCTGCCCC
GRK2 -2245	-2231	-	2.02	CAGCTTTGAGCCAC	
KLC2 -2277	-2263	+	0.45	GTGGCTCAGAGGTT	
NOXRED1	-2268	-2254	+	0.44	GTGGGTGAAGGAGA
NOXRED1	-2242	-2228	+	2.15	GGGGACCACAGCGG
NRXN3 -2237	-2223	-	3.24	TACCCACAGCCAC	
PELI3 -2271	-2257	+	1.11	GGGGTCCAGGAGGA	
PELI3 -2221	-2207	+	0.05	GGGGGACAGAGGAG	
PNKD -2273	-2259	-	2.83	TCCCCCGAACCCCC	
PPP6R2 -2217	-2203	+	0.26	GTGGGGGAGGGGAG	
PPP6R3 -2278	-2264	-	5.15	TCCCCCTCCCCCTC	
PPP6R3 -2229	-2215	+	2.38	GTGGCCTTGGGCGA	
RAB1B -2273	-2259	-	1.39	CCCCAGCTGGCTCC	
RIN1 -2275	-2261	+	2.50	GGTGGGGAAAGGGG	
RIN1 -2255	-2241	+	2.60	GAGGGGACAGGGGA	
SELENOP	-2278	-2264	-	0.45	AACCACTGAGCCAC
SEMA4D	-2218	-2204	-	3.32	CCGCCGGTGGCCCC
SF3B2 -2262	-2248	-	2.20	CCCCATCGCACAC	
SF3B2 -2244	-2230	+	2.46	GAGGCGGAGGCGGG	
TMCC3 -2277	-2263	+	0.17	GGAGCCCTGGGATG	
ZDHHC24	-2262	-2248	+	9.73	GGGGGGGTAGGGGG

15 MA0080.2 SPI1 9.64024729829 0.435374151649 -2160:-2125 7.07953721775e-06

list of hits					
ANKRD13D	-2156	-2149	+	6.96	GGGAAGT
ARHGEF10	-2151	-2144	+	8.65	AGGAAGT
C2H1orf80	-2141	-2134	-	6.78	ATTCCT
CHKA -2140	-2133	-	6.45	ACTTCTT	
CHKA -2125	-2118	+	6.78	AGGAAAT	
CYFIP2 -2153	-2146	-	8.65	ACTTCCT	

EEA1	-2150	-2143	-	6.96	ACTTCCC
GPATCH2		-2135	-2128	-	8.65 ACTTCCT
LOC102162264		-2147	-2140	-	6.96 ACTTCCC
PACS1	-2146	-2139	+	6.31	AGGAAGA
PELI3	-2125	-2118	-	8.65	ACTTCCT
PLCD4	-2149	-2142	-	6.78	ATTTTCCT
RBM14	-2150	-2143	-	6.45	ACTTCTT
SEMA4D		-2128	-2121	+	6.42 AGAAAGT
TGFB2	-2130	-2123	-	6.81	GCTTCCT
VIPAS39		-2160	-2153	+	6.31 AGGAAGA
ZDHHC24		-2145	-2138	+	6.31 AGGAAGA

16 MA0101.1 REL 10.514792431 0.558823538572 -2832:-2720 8.73767425321e-06

list of hits

ADAM19	-2816	-2806	-	5.99	GGAACCTCCA
ANGEL1	-2805	-2795	+	7.57	TGGAGATTCC
ANGEL1	-2731	-2721	+	7.95	GGGGAGTTCC
ARHGEF10	-2727	-2717	-	5.99	GGAACCTCCA
C16H5orf34	-2832	-2822	+	6.84	TGGGAATTTTC
CATSPER1	-2746	-2736	-	8.26	GGAAACTCCA
CHKA	-2806	-2796	+	6.06	GGTTATTTCC
CIPC	-2798	-2788	+	6.84	TGGGAATTTTC
CLINT1	-2805	-2795	-	7.36	GGAAACACCA
CRADD	-2738	-2728	+	7.37	GGGAACTTCC
DOCK1	-2775	-2765	-	6.40	GGAAACCCAG
ISM2	-2745	-2735	-	5.99	GGAACCTCCA
NPAS4	-2825	-2815	+	6.21	GGGAAAATCC
OXCT1	-2822	-2812	+	7.37	GGGAAGTTCC
PPP6R2	-2820	-2810	-	7.26	GGAACCTCCA
PPP6R2	-2722	-2712	-	9.06	GGAAAACCCG
PPP6R3	-2780	-2770	+	7.37	GGGAACTTCC
RIN1	-2813	-2803	+	6.90	CTGGCTTTCC
SEMA4D		-2741	-2731	+	7.95 GGGGAGTTCC
SLC29A2		-2720	-2710	+	6.68 TGGAAGTTCC
TMED8	-2800	-2790	-	5.99	GGAACCTCCA
WTAP	-2805	-2795	+	6.68	TGTGCTTTCC

17	MA0039.2	Klf4	12.6183576774	0.771222760739	-1592:-1527	9.99561567157e-06
		list of hits				
		ADAM19	-1585	-1575	+	10.60 AGGGTGGGGC
		ADAM19	-1558	-1548	+	5.26 GGGGCAGGGC
		C2H1orf80	-1529	-1519	-	6.02 GCCACAGCCT
		DOCK1 -1592	-1582	+	5.02 AGGGTGGGCG	
		GHR -1575	-1565	-	4.80 GCAACTCCCC	
		GPATCH2	-1565	-1555	-	10.72 GCCACACCCA
		GRK2 -1563	-1553	+	5.85 GGGGAGGGGA	
		IFT80 -1561	-1551	-	4.66 CCCGCGCCCC	
		IFT80 -1534	-1524	+	6.22 TGGGTGGGGC	
		IHH -1587	-1577	+	8.40 TGGGTGGGGA	
		KLC2 -1590	-1580	+	9.67 TGGGTGGGGT	
		PACS1 -1530	-1520	+	6.20 TGGCTGTGGC	
		PLCD4 -1580	-1570	+	5.88 GGGGAGTGGG	
		PLCD4 -1560	-1550	+	5.78 GGGGAGTGGA	
		PPP6R2 -1534	-1524	-	5.59 GCCGCTCCCA	
		PPP6R3 -1555	-1545	-	6.20 GCCACAGCCA	
		RIN1 -1590	-1580	+	5.13 AGGGTGCGGG	
		SAMD15	-1539	-1529	+	7.49 TGGGTGGGCC
		SART1 -1527	-1517	-	7.06 GCCTCACCCA	
		SELENOP	-1560	-1550	-	5.58 GCCCCACACA
		SEMA4D	-1548	-1538	-	5.02 ACCACCCCA
		SLC23A3	-1528	-1518	+	5.07 ATGGTGGGGC
		SPATA17	-1554	-1544	-	7.36 GCAACACCCA
		TMCC3 -1567	-1557	+	5.59 AGGGTGTAGG	
		WTAP -1568	-1558	-	4.95 CCACCACCCT	
		ZDHHC24	-1592	-1582	+	7.86 GGGGTGGGGA
		ZDHHC24	-1561	-1551	+	10.24 GGGGTGGGGC
18	MA0092.1	Hand1:Tcf2a	10.1435823018	0.506896541268	-1327:-1280	1.25729012647e-05
		list of hits				
		CNPPD1	-1300	-1290	+	6.64 AATCTGGCTG
		DLGAP2	-1321	-1311	+	6.31 TTTCTGGAAG
		GPATCH2	-1326	-1316	-	6.28 ATGACAGACA

GPATCH2	-1282	-1272	+	6.77	CTTCTGGTTT
GRK2	-1327	-1317	+	6.32	GGTCTGGAGC
GRK2	-1289	-1279	+	7.70	GGTCTGGAGT
KLC2	-1309	-1299	-	8.06	GTGCCAGACA
KLC2	-1293	-1283	-	8.42	CTGCCAGACC
LOC102157641	-1299	-1289	-	5.99	ATTCCAGTCT
PACS1	-1281	-1271	+	8.30	GGTCTGGTTT
PLCXD3	-1306	-1296	+	7.79	CTTCTGGCTT
SART1	-1327	-1317	+	6.21	AGTCTGGTGT
TMCC3	-1307	-1297	-	6.39	AACCCAGACA
TMED8	-1326	-1316	+	6.77	CTTCTGGTTT
TMEM181	-1280	-1270	+	5.82	TGTCTGTCTT
VIPAS39	-1315	-1305	-	6.45	CTTCCAGAAG

19 MA0061.1 NF-kappaB 13.3447617922 0.621052631736 -2967:-2723 1.37813143033e-05

list of hits

ADAM19	-2817	-2807	+	5.38	GGGAACCTCC
ANGEL1	-2731	-2721	+	8.53	GGGGAGTTCC
ARHGEF10	-2728	-2718	+	5.38	GGGAACCTCC
C16H5orf34	-2831	-2821	+	11.35	GGGAATTTC
CHKA	-2950	-2940	+	5.38	GGGAACCTCC
CHKA	-2805	-2795	-	4.98	GTTATTTC
CIPC	-2951	-2941	+	5.53	GGGAGTTCCT
CIPC	-2797	-2787	+	11.35	GGGAATTTC
CRADD	-2738	-2728	+	8.14	GGGAACCTCC
DOCK1	-2967	-2957	-	4.86	GGGAAGTCCA
DOCK1	-2895	-2885	-	7.15	GGGCAATCCC
FNDC9	-2946	-2936	+	5.74	GGGAATCTCT
IGF2R	-2946	-2936	+	4.85	GGAAGTTCCC
ISM2	-2948	-2938	-	5.18	AGGAGTTCCC
ISM2	-2746	-2736	+	5.38	GGGAACCTCC
KDM2A	-2904	-2894	+	7.08	GGGAAATCAC
KLC2	-2936	-2926	+	8.03	GGGAACCTCC
KLC2	-2768	-2758	+	5.24	AGGAATTCCC
LOC102157641	-2868	-2858	-	5.03	AAAAATTCCC
NIM1K	-2750	-2740	-	7.47	AGAAAGCCCC

NPAS4	-2825	-2815	+	6.60	GGGAAAATCC
NRXN3	-2821	-2811	+	6.22	GGGGCAGTCC
OXCT1	-2822	-2812	+	9.18	GGGAAGTTCC
PACS1	-2926	-2916	+	6.60	GGGGAACCTCC
PITPNM1		-2728	-2718	+	7.94 GGGGATGTCC
PNKD	-2903	-2893	+	8.10	GGGACTCCCC
PPP6R2	-2821	-2811	-	5.53	AGGAACTCCC
PPP6R2	-2723	-2713	+	6.49	GGGAAAACCC
PPP6R3	-2889	-2879	-	4.49	AGGAAGTTCC
PPP6R3	-2780	-2770	+	8.14	GGGAACTTCC
RETREG2		-2879	-2869	+	7.85 GGGATGTTCC
RIN1	-2858	-2848	-	5.09	AGAGATCCCC
SEMA4D		-2741	-2731	+	8.53 GGGGAGTTCC
SLC23A3		-2891	-2881	+	5.16 GGGGTAGCCC
TMCC3	-2939	-2929	+	6.68	GGAGCTTCCC
TMED8	-2801	-2791	+	5.38	GGGAACCTCC
VIPAS39		-2967	-2957	+	5.38 GGGAACCTCC

20 MA0155.1 INSM1 14.8617070481 0.666666670392 -581:-547 1.52581753581e-05

list of hits

ANKRD13D	-0574	-562	-	9.42	CGCCCCCAGCCC
ARHGEF10	-0564	-552	-	4.40	TTCCCTCTTACA
CATSPER1	-0562	-550	-	5.08	ATCCCCCATCCC
CIPC	-0579	-567	-	6.93	TTCCCCCTGCCT
FNDC9	-0581	-569	+	9.18	TTCTGGGGGTG
GRK2	-0562	-550	+	10.40	GGTCAGGGGTCA
IHH	-0554	-542	-	5.13	AAGCCCCTGCCC
KLC2	-0570	-558	-	4.37	CGCCCGCAGGAT
KLC2	-0552	-540	-	7.37	CTGCCCCTGGCC
PNKD	-0567	-555	+	4.33	GGCCAGGGGTGA
PPP6R2	-0580	-568	-	4.36	CTGCCCCAGCCT
RIN1	-0576	-564	+	7.18	GGCCTGGGGCTG
SART1	-0553	-541	+	4.08	TTTCAGGGGTTC
SEMA4D	-0551	-539	+	5.41	GGCCTGGGGCTT
SLC23A3	-0547	-535	-	3.96	CAGCCCCATCCT
SPATA17	-0548	-536	-	3.99	TGCCTCCTTGCC

21 MA0061.1 NF-kappaB 13.3447617922 0.621052631736 -2374:-2262 1.72575780302e-05

list of hits

ADAM19	-2343	-2333	-	5.38	GGAGGTTCCC
ANGEL1	-2268	-2258	+	7.82	GGAAATTTCC
C2H1orf80	-2284	-2274	-	7.05	AGGATTTCCC
CHKA -2374	-2364	-	5.38	GGAGGTTCCC	
CNPPD1	-2262	-2252	+	6.11	GGGACAACCC
DOCK1 -2303	-2293	-	7.14	GGGCTTTCCC	
GHR -2295	-2285	+	5.83	GGAGAATTCC	
GRK2 -2324	-2314	+	8.03	GGGAACTCCC	
IGF2R -2359	-2349	+	5.18	GGGAACTCCT	
KDM2A	-2344	-2334	-	5.18	AGGAGTTCCC
KLC2 -2351	-2341	+	8.14	GGGAACTTCC	
KLC2 -2291	-2281	+	8.53	GGGGAGTTCC	
MKI67 -2282	-2272	-	9.63	GGAATGTCCC	
OXCT1 -2373	-2363	+	8.38	GGGAGTTCCC	
PTPRE -2339	-2329	-	4.58	GGGCAGTTCC	
RAB1B -2323	-2313	-	5.35	GGTGAGCCCC	
RBM14 -2291	-2281	+	5.38	GGGAACCTCC	
RRP15 -2328	-2318	+	5.29	GGGAACTTCT	
SELENOP	-2262	-2252	+	6.60	GGGGAACTCC
SLC29A2	-2357	-2347	+	8.14	GGGAACTTCC
SLC29A2	-2294	-2284	-	7.88	GAAAATTCCC
WTAP -2367	-2357	-	4.70	GGAAATCCTC	

22 MA0154.1 EBF1 11.5644748683 0.648000004888 -2762:-2573 2.03982629914e-05

list of hits

ANGEL1	-2739	-2729	+	8.19	ACTCAAGGGG
ANKRD13D	-2720	-2710	+	6.54	ACCACAGGGG
ANKRD13D	-2582	-2572	-	5.39	CCCCCAGGGC
ARID1B	-2713	-2703	-	5.77	TCTCTGTGGT
C16H5orf34	-2652	-2642	+	6.44	ACCATGGGGA
C2H1orf80	-2632	-2622	+	5.45	ATTCAAGAGA
CNPPD1	-2611	-2601	+	6.90	GCCTCAGGGA
CYFIP2 -2646	-2636	-	5.90	TCCCAGAAGG	

GRK2	-2747	-2737	+	6.50	GCCACAGGGA
IGF2R	-2741	-2731	+	6.83	ACTCCGGGGG
IHH	-2675	-2665	+	5.35	GCTCAGGGGG
ISM2	-2591	-2581	-	6.00	TCCCATGAAG
KLC2	-2762	-2752	-	7.74	TCCCTGGTGT
KLC2	-2589	-2579	+	6.72	CCTCCCGGGA
LOC100514494	-2757	-2747	+	5.47	CCAAAAGGGA
MROH2B	-2676	-2666	+	7.36	ACTACAGGGA
NIM1K	-2720	-2710	+	6.10	CCTTATGGGA
NRXN3	-2691	-2681	-	6.00	TCCCATGAAG
NRXN3	-2608	-2598	-	5.74	TCCCATGGAA
PLCD4	-2734	-2724	-	6.27	TCTCTTGGAT
PNKD	-2760	-2750	-	6.59	TCCCCTGTGG
PPP6R3	-2584	-2574	+	7.13	GCCCCAGGGG
PTPRE	-2642	-2632	+	5.33	ACGCCAGAGA
PTPRE	-2619	-2609	+	5.57	CCCACAGAGA
RIN1	-2628	-2618	-	5.71	CCCCTGTAGT
SART1	-2748	-2738	+	6.13	CCTCCTGGGG
SART1	-2682	-2672	-	10.46	TCCCTTGGGG
SART1	-2573	-2563	-	5.77	CCTCTTGAGT
SEMA4D	-2734	-2724	-	6.50	TCCCATGAGC
SF3B2	-2687	-2677	-	7.42	TCCCCTAGGG
SF3B2	-2655	-2645	+	5.95	ACCATAGGGG
SLC23A3	-2592	-2582	-	6.54	CCCCTTTGGG
SLC29A2	-2618	-2608	-	5.35	CCCCCTGAGC
TGFB2	-2604	-2594	-	5.91	CCCCTGAAGG
TGFB2	-2573	-2563	+	7.29	TCCTCAGGGA
TMED8	-2591	-2581	+	7.54	CCACCAGGGA
TMEM181	-2703	-2693	-	5.94	TCCCCTAGGC
TMEM181	-2638	-2628	-	6.92	TCCCGTGAGG
ZDHHC24	-2695	-2685	-	6.90	TCCCTGAGGC

23 MA0048.1 NHLH1 14.131557299 0.674382714037 -957:-893 2.11409879322e-05
list of hits
ANGEL1 -0943 -931 + 7.94 ACCCAGCTGGTC
CATSPER1 -0931 -919 + 9.69 ACTCAGCTGCTG

CLRN3	-0911	-899	-	5.81	AAACTGCTGCGA
EEA1	-0945	-933	+	7.50	TCCCAGCTGCAT
EEA1	-0921	-909	-	4.94	CCACAGCTTAGG
GRK2	-0902	-890	-	4.42	CCACATCTGGGT
IGF2R	-0940	-928	-	4.77	ATACAGCTGCCA
ISM2	-0895	-883	+	7.02	CATCAGCTGAGG
LOC100525027	-0893	-881	-	6.10	ACCCATCTGCTG
MKI67	-0898	-886	+	4.31	GAACAGCAGCTC
MROH2B	-0907	-895	+	6.17	AAGCAGCAGCTG
NPAS4	-0955	-943	+	4.62	GGGCAGCCGCTG
NRXN3	-0946	-934	+	5.73	CAACAGCTGTTG
RBM14	-0928	-916	-	5.18	CTGCATCTGCGA
RIN1	-0957	-945	+	5.29	CCCCAGCAGCTG
VIPAS39	-0949	-937	-	6.58	ATACAGCTGCTA
ZDHHC24	-0951	-939	-	4.60	CCTCTGCTGCTT
ZDHHC24	-0924	-912	+	5.00	CAGCAGCAGGTC

24 MA0036.1 GATA2 5.68777361321 0.403773584962 -486:-440 2.18128509265e-05

list of hits

ARID1B	-0463	-458	+	4.95	GGATA
C2H1orf80	-0453	-448	+	4.95	GGATA
DLGAP2	-0450	-445	+	4.95	GGATA
GHR	-0443	-438	+	4.95	GGATA
LOC102157641	-0464	-459	+	4.95	GGATA
RAB1B	-0441	-436	+	4.95	GGATA
SF3B2	-0448	-443	-	4.95	TATCC
SLC23A3	-0473	-468	-	4.95	TATCC
TGFB2	-0486	-481	+	4.95	GGATA
WTAP	-0478	-473	-	4.95	TATCC
WTAP	-0440	-435	+	4.95	GGATA

25 MA0107.1 RELA 14.7568335332 0.566666663438 -1927:-1891 2.65583552928e-05

list of hits

ANGEL1	-1891	-1881	-	7.22	GGGAAGCCCG
C2H1orf80	-1899	-1889	+	4.76	TGGAAGTTCC
CIPC	-1918	-1908	-	6.42	GGAAAACCAC

DLGAP2	-1922	-1912	+	5.49	GGGGATCTCC
FNDC9 -1902	-1892	+	3.87	GGGAAATTAC	
LOC102162264	-1927	-1917	+	3.67	GGGATTTTCA
NIM1K -1900	-1890	+	4.76	TGGAAGTTCC	
NPAS4 -1905	-1895	+	4.76	TGGAAGTTCC	
PLCXD3	-1910	-1900	+	3.85	TGGAGGTTCC
RAB1B -1907	-1897	-	5.87	GGGAAACCCA	
RIN1 -1893	-1883	+	7.67	TGGAGTTCCC	
SAMD15	-1898	-1888	-	3.85	GGAACCTCCA