

Table S1. LAPTM4B*1 allele transcription factor prediction results of online database

Sequence name	Factor name	Start position	End position	Dissimilarity	String	RE equally	RE query
LAPTM4B*1 allele	VDR [T00885]	1	4	0	GGGT	1.95703	2.66244
LAPTM4B*1 allele	VDR [T00885]	64	67	0	ACCC	1.95703	2.66244
LAPTM4B*1 allele	VDR [T00885]	208	211	0	ACCC	1.95703	2.66244
LAPTM4B*1 allele	VDR [T00885]	292	295	0	GGGT	1.95703	2.66244
LAPTM4B*1 allele	VDR [T00885]	319	322	0	GGGT	1.95703	2.66244
LAPTM4B*1 allele	VDR [T00885]	372	375	0	GGGT	1.95703	2.66244
LAPTM4B*1 allele	VDR [T00885]	442	445	0	GGGT	1.95703	2.66244
LAPTM4B*1 allele	VDR [T00885]	450	453	0	ACCC	1.95703	2.66244
LAPTM4B*1 allele	VDR [T00885]	475	478	0	GGGT	1.95703	2.66244
LAPTM4B*1 allele	WT1 I [T01840]	3	9	5.136498	GTGTGGT	0.18347	0.26637
LAPTM4B*1 allele	WT1 I [T01840]	85	91	8.128015	GTGAGCC	0.18347	0.27552
LAPTM4B*1 allele	WT1 I [T01840]	311	317	7.513446	TACTCAC	0.09174	0.09901
LAPTM4B*1 allele	ENKTF-1 [T00255]	9	16	13.885529	TGGCAAGC	0.27521	0.38844
LAPTM4B*1 allele	ENKTF-1 [T00255]	96	103	6.942764	TCGCGCCA	0.36694	0.56658
LAPTM4B*1 allele	ENKTF-1 [T00255]	229	236	12.629773	AACGGCCA	0.55042	0.66373
LAPTM4B*1 allele	ENKTF-1 [T00255]	285	292	1.255756	TGGCGGAG	0.06116	0.12299
LAPTM4B*1 allele	ENKTF-1 [T00255]	341	348	13.885529	TGGCTGGA	0.27521	0.38844
LAPTM4B*1 allele	ENKTF-1 [T00255]	378	385	6.942764	CATGGCCA	0.36694	0.56658
LAPTM4B*1 allele	ENKTF-1 [T00255]	380	387	6.942764	TGGCCAAG	0.36694	0.56658
LAPTM4B*1 allele	p300 [T01427]	23	27	1.540766	AATCC	0.48926	0.31279
LAPTM4B*1 allele	p300 [T01427]	50	54	3.482089	GGAGA	0.97852	1.62404
LAPTM4B*1 allele	p300 [T01427]	69	73	3.482089	GGAGG	0.97852	1.62404
LAPTM4B*1 allele	p300 [T01427]	75	79	3.482089	GGAGG	0.97852	1.62404
LAPTM4B*1 allele	p300 [T01427]	108	112	0.770383	ACTCC	0.48926	0.52181
LAPTM4B*1 allele	p300 [T01427]	170	174	5.408046	GGAAG	0.97852	1.11214
LAPTM4B*1 allele	p300 [T01427]	185	189	5.795432	GGAAC	0.48926	0.59067
LAPTM4B*1 allele	p300 [T01427]	218	222	0.770383	GGAGT	0.48926	0.52181
LAPTM4B*1 allele	p300 [T01427]	247	251	5.408046	GGAAG	0.97852	1.11214
LAPTM4B*1 allele	p300 [T01427]	256	260	3.099092	GGACC	0.48926	0.8339
LAPTM4B*1 allele	p300 [T01427]	259	263	3.482089	CTCC	0.97852	1.62404
LAPTM4B*1 allele	p300 [T01427]	281	285	0	GGACT	0.48926	0.50476
LAPTM4B*1 allele	p300 [T01427]	289	293	3.482089	GGAGG	0.97852	1.62404
LAPTM4B*1 allele	p300 [T01427]	306	310	1.540766	GGATT	0.48926	0.31279
LAPTM4B*1 allele	p300 [T01427]	327	331	3.869475	GGAGC	0.48926	0.88508
LAPTM4B*1 allele	p300 [T01427]	330	334	3.869475	GCTCC	0.48926	0.88508
LAPTM4B*1 allele	p300 [T01427]	346	350	3.869475	GGAGC	0.48926	0.88508
LAPTM4B*1 allele	p300 [T01427]	366	370	0	GGACT	0.48926	0.50476
LAPTM4B*1 allele	p300 [T01427]	386	390	0	AGTCC	0.48926	0.50476
LAPTM4B*1 allele	p300 [T01427]	400	404	3.482089	CCTCC	0.97852	1.62404
LAPTM4B*1 allele	p300 [T01427]	406	410	2.711705	CGTCC	1.46777	1.81715
LAPTM4B*1 allele	p300 [T01427]	434	438	3.869475	GGAGC	0.48926	0.88508
LAPTM4B*1 allele	p300 [T01427]	465	469	3.869475	GGAGC	0.48926	0.88508
LAPTM4B*1 allele	p300 [T01427]	484	488	3.482089	GGAGG	0.97852	1.62404
LAPTM4B*1 allele	R2 [T00712]	25	30	14.26934	TCCCAG	1.46777	1.68655
LAPTM4B*1 allele	R2 [T00712]	47	52	11.337888	GCAGGA	0.61157	0.85803
LAPTM4B*1 allele	R2 [T00712]	72	77	9.512894	GGCGGA	1.83472	2.05292
LAPTM4B*1 allele	R2 [T00712]	110	115	1.824994	TCCAGC	0.12231	0.15544
LAPTM4B*1 allele	R2 [T00712]	167	172	14.26934	AAGGGA	1.46777	1.68655
LAPTM4B*1 allele	R2 [T00712]	215	220	9.512894	AATGGA	1.83472	2.05292
LAPTM4B*1 allele	R2 [T00712]	244	249	9.512894	GAAGGA	1.83472	2.05292
LAPTM4B*1 allele	R2 [T00712]	261	266	9.512894	TCCACT	1.83472	2.05292
LAPTM4B*1 allele	R2 [T00712]	278	283	14.26934	AGGGGA	1.46777	1.68655
LAPTM4B*1 allele	R2 [T00712]	286	291	9.512894	GGCGGA	1.83472	2.05292
LAPTM4B*1 allele	R2 [T00712]	303	308	0	GATGGA	0.36694	0.36637
LAPTM4B*1 allele	R2 [T00712]	324	329	9.512894	CTTGA	1.83472	2.05292
LAPTM4B*1 allele	R2 [T00712]	332	337	1.824994	TCCAGC	0.12231	0.15544
LAPTM4B*1 allele	R2 [T00712]	343	348	1.824994	GCTGGA	0.12231	0.15544
LAPTM4B*1 allele	R2 [T00712]	388	393	9.512894	TCCGCC	1.83472	2.05292
LAPTM4B*1 allele	R2 [T00712]	402	407	14.26934	TCCCG	1.46777	1.68655
LAPTM4B*1 allele	R2 [T00712]	408	413	14.26934	TCCCG	1.46777	1.68655
LAPTM4B*1 allele	R2 [T00712]	431	436	14.26934	TTCGGA	1.46777	1.68655
LAPTM4B*1 allele	Ik-1 [T02702]	25	37	4.748597	TCCCAGTACTCG	0.00078	0.00152
LAPTM4B*1 allele	AIRE [T05990]	39	48	10.110876	TTGGTTGGGC	0.04109	0.02997
LAPTM4B*1 allele	Elk-1 [T00250]	23	27	6.853012	AATCC	1.46777	1.47544
LAPTM4B*1 allele	Elk-1 [T00250]	50	54	7.213232	GGAGA	1.46777	1.47544
LAPTM4B*1 allele	Elk-1 [T00250]	69	73	5.092035	GGAGG	0.48926	0.96615
LAPTM4B*1 allele	Elk-1 [T00250]	75	79	5.092035	GGAGG	0.48926	0.96615
LAPTM4B*1 allele	Elk-1 [T00250]	108	112	7.984576	ACTCC	0.48926	0.52181
LAPTM4B*1 allele	Elk-1 [T00250]	170	174	0	GGAAG	0.48926	0.65789
LAPTM4B*1 allele	Elk-1 [T00250]	185	189	2.314032	GGAAC	0.48926	0.59067
LAPTM4B*1 allele	Elk-1 [T00250]	218	222	7.984576	GGAGT	0.48926	0.52181
LAPTM4B*1 allele	Elk-1 [T00250]	247	251	0	GGAAG	0.48926	0.65789
LAPTM4B*1 allele	Elk-1 [T00250]	256	260	6.274504	GGACC	0.97852	1.33867
LAPTM4B*1 allele	Elk-1 [T00250]	259	263	5.092035	CCTCC	0.48926	0.96615
LAPTM4B*1 allele	Elk-1 [T00250]	281	285	6.853012	GGACT	1.46777	1.47544
LAPTM4B*1 allele	Elk-1 [T00250]	289	293	5.092035	GGAGG	0.48926	0.96615
LAPTM4B*1 allele	Elk-1 [T00250]	306	310	6.853012	GGATT	1.46777	1.47544
LAPTM4B*1 allele	Elk-1 [T00250]	327	331	7.406067	GGAGC	0.48926	0.88508
LAPTM4B*1 allele	Elk-1 [T00250]	330	334	7.406067	GCTCC	0.48926	0.88508
LAPTM4B*1 allele	Elk-1 [T00250]	346	350	7.406067	GGAGC	0.48926	0.88508
LAPTM4B*1 allele	Elk-1 [T00250]	366	370	6.853012	GGACT	1.46777	1.47544
LAPTM4B*1 allele	Elk-1 [T00250]	386	390	6.853012	AGTCC	1.46777	1.47544
LAPTM4B*1 allele	Elk-1 [T00250]	400	404	5.092035	CCTCC	0.48926	0.96615
LAPTM4B*1 allele	Elk-1 [T00250]	406	410	3.960472	CGTCC	0.97852	1.40689
LAPTM4B*1 allele	Elk-1 [T00250]	434	438	7.406067	GGAGC	0.48926	0.88508
LAPTM4B*1 allele	Elk-1 [T00250]	465	469	7.406067	GGAGC	0.48926	0.88508

LAPTM4B*1 allele	Elk-1 [T00250]	484	488	5.092035	GGAGG	0.48926	0.96615
LAPTM4B*1 allele	β-beta:RXR-α [T00250]	56	67	12.463326	TCGCTTGAACCC	0.03279	0.06694
LAPTM4B*1 allele	Nkx2-1 [T00857]	67	73	1.361249	CGGGAGG	0.09174	0.23205
LAPTM4B*1 allele	Nkx2-1 [T00857]	73	79	4.033796	GCCGAGG	0.21405	0.33738
LAPTM4B*1 allele	Nkx2-1 [T00857]	259	265	2.672547	CCTCCAC	0.03058	0.05146
LAPTM4B*1 allele	Nkx2-1 [T00857]	287	293	4.033796	GCCGAGG	0.21405	0.33738
LAPTM4B*1 allele	Nkx2-1 [T00857]	400	406	4.033796	CCTCCAC	0.21405	0.33738
LAPTM4B*1 allele	Nkx2-1 [T00857]	479	485	4.912497	ATCGAGG	0.4281	0.44062
LAPTM4B*1 allele	Nkx2-1 [T00857]	482	488	4.033796	GAGGAGG	0.21405	0.33738
LAPTM4B*1 allele	AP-2α [T00035]	17	22	1.437215	GCCTGT	0.12231	0.17171
LAPTM4B*1 allele	AP-2α [T00035]	69	74	2.003202	GGAGGC	0.24463	0.54059
LAPTM4B*1 allele	AP-2α [T00035]	114	119	0.159691	GCCTGG	0.24463	0.50933
LAPTM4B*1 allele	AP-2α [T00035]	248	253	3.004803	GAAGGC	0.36694	0.51621
LAPTM4B*1 allele	AP-2α [T00035]	428	433	3.004803	GCCTTC	0.36694	0.51621
LAPTM4B*1 allele	AP-2α [T00035]	484	489	2.003202	GGAGGC	0.24463	0.54059
LAPTM4B*1 allele	AP-2α [T00035]	488	493	0	GCAGGC	0.24463	0.50933
LAPTM4B*1 allele	Sp1 [T00759]	69	77	9.532578	GGAGGCGGA	0.0516	0.15696
LAPTM4B*1 allele	Sp1 [T00759]	283	291	11.706922	ACTGGCGGA	0.04205	0.08604
LAPTM4B*1 allele	Sp1 [T00759]	388	396	2.421386	TCCGCCCGG	0.02102	0.08184
LAPTM4B*1 allele	Sp1 [T00759]	393	401	0	CCCGCCCCC	0.00764	0.04235
LAPTM4B*1 allele	Sp1 [T00759]	410	418	8.565378	CCCGCCGCT	0.0344	0.11197
LAPTM4B*1 allele	C/EBPα [T00108]	9	14	3.200469	TGGCAA	0.73389	0.79063
LAPTM4B*1 allele	C/EBPα [T00108]	80	85	0.527529	TTGCAG	0.24463	0.15503
LAPTM4B*1 allele	C/EBPα [T00108]	104	109	0	TTGCAC	0.24463	0.16663
LAPTM4B*1 allele	C/EBPα [T00108]	179	184	3.022085	TCGCAA	0.73389	0.79063
LAPTM4B*1 allele	C/EBPβ [T00581]	8	14	4.807336	GTGGCAA	0.24463	0.20486
LAPTM4B*1 allele	C/EBPβ [T00581]	80	86	4.329855	TTGCAGT	0.21405	0.15729
LAPTM4B*1 allele	C/EBPβ [T00581]	104	110	0.805985	TTGCAC	0.09174	0.07372
LAPTM4B*1 allele	C/EBPβ [T00581]	178	184	4.807336	ATCGCAA	0.24463	0.20486
LAPTM4B*1 allele	E2F-1:DP-1 [T05204]	95	103	2.513294	ATCGCGCCA	0.00573	0.01062
LAPTM4B*1 allele	E2F-1:DP-1 [T05204]	285	293	14.802692	TGGCGGAGG	0.03058	0.07522
LAPTM4B*1 allele	E2F-1:DP-1 [T05204]	391	399	12.662304	GCCCCGCC	0.07262	0.20589
LAPTM4B*1 allele	E2F-1:DP-1 [T05204]	408	416	10.023625	TCCCCCGCG	0.04396	0.11207
LAPTM4B*1 allele	CUTL1 [T00100]	103	108	2.06853	ATTGCA	0.73389	0.4205
LAPTM4B*1 allele	BTEB3 [T05051]	71	79	3.496398	AGGCGGAGG	0.01911	0.03439
LAPTM4B*1 allele	BTEB3 [T05051]	108	116	14.933149	ACTCCAGCC	0.06116	0.09755
LAPTM4B*1 allele	BTEB3 [T05051]	214	222	12.17827	GAATGGAGT	0.08791	0.13551
LAPTM4B*1 allele	BTEB3 [T05051]	259	267	7.847399	CCTCCACTC	0.05733	0.11349
LAPTM4B*1 allele	BTEB3 [T05051]	285	293	11.761034	TGGCGGAGG	0.08791	0.13551
LAPTM4B*1 allele	BTEB3 [T05051]	400	408	5.813911	CCTCCCCGT	0.01147	0.01611
LAPTM4B*1 allele	E47 [T00207]	26	32	4.682492	CCAGCT	0.24463	0.35632
LAPTM4B*1 allele	E47 [T00207]	110	116	4.327662	TCCAGCC	0.24463	0.35632
LAPTM4B*1 allele	E47 [T00207]	114	120	5.305872	GCCTGGG	0.21405	0.30154
LAPTM4B*1 allele	E47 [T00207]	233	239	0	GCCAGAT	0.06116	0.08
LAPTM4B*1 allele	E47 [T00207]	282	288	4.485315	GACTTGGC	0.24463	0.35632
LAPTM4B*1 allele	E47 [T00207]	332	338	5.510905	TCCAGCA	0.21405	0.30154
LAPTM4B*1 allele	E47 [T00207]	338	344	3.634763	AGCTGGC	0.03058	0.04668
LAPTM4B*1 allele	E47 [T00207]	342	348	4.327662	GGCTTGA	0.24463	0.35632
LAPTM4B*1 allele	SRY [T00997]	121	127	6.723683	CGACAAG	0.24463	0.2844
LAPTM4B*1 allele	MBF1 [T00492]	141	151	14.636473	CTCAAAAAAAAA	0.05805	0.0185
LAPTM4B*1 allele	MBF1 [T00492]	192	202	14.636473	GACTAAAAAGAA	0.05805	0.0185
LAPTM4B*1 allele	STAT5A [T04683]	170	173	0	GGAA	1.95703	2.04421
LAPTM4B*1 allele	STAT5A [T04683]	185	188	0	GGAA	1.95703	2.04421
LAPTM4B*1 allele	STAT5A [T04683]	247	250	0	GGAA	1.95703	2.04421
LAPTM4B*1 allele	POU3F2 [T00630]	176	182	9.725533	AAATCGC	0.06116	0.04046
LAPTM4B*1 allele	POU3F2 [T00630]	305	311	0.252682	TGGATTT	0.18347	0.05356
LAPTM4B*1 allele	FOXP3 [T04280]	175	183	14.668224	AAAATCGCA	0.00764	0.00401
LAPTM4B*1 allele	PEA3 [T00684]	182	189	8.315494	CAAGGAAC	0.09174	0.0533
LAPTM4B*1 allele	PEA3 [T00684]	244	251	4.375434	GAAGGAAG	0.01529	0.01882
LAPTM4B*1 allele	c-Ets-2 [T00113]	184	191	2.827022	AGGAACCTA	0.09174	0.07753
LAPTM4B*1 allele	c-Ets-2 [T00113]	246	253	4.629332	AGGAAGGC	0.1376	0.14255
LAPTM4B*1 allele	c-Myb [T00137]	186	193	13.847077	GAATAGCA	0.06116	0.03125
LAPTM4B*1 allele	c-Myb [T00137]	217	224	12.979731	TGGAGTTA	0.1376	0.0721
LAPTM4B*1 allele	AP-3 (2) [T00039]	194	200	11.290546	CTAAAAG	0.36694	0.19834
LAPTM4B*1 allele	HNF-3β [T02513]	195	201	3.504129	TAAAAGA	0.30579	0.1321
LAPTM4B*1 allele	HNF-3β [T02513]	306	312	3.66377	GGATTTA	0.30579	0.1321
LAPTM4B*1 allele	YY1 [T00915]	101	107	7.55849	CCATTCG	0.33636	0.33922
LAPTM4B*1 allele	YY1 [T00915]	213	219	8.35288	TGAATGG	0.30579	0.25237
LAPTM4B*1 allele	YY1 [T00915]	301	307	7.441476	CTGATGG	0.33636	0.33922
LAPTM4B*1 allele	YY1 [T00915]	376	382	3.973697	CACATCG	0.12231	0.09733
LAPTM4B*1 allele	Hlf [T01071]	221	229	6.667463	GTTACACGA	0.02485	0.01102
LAPTM4B*1 allele	Myf-3 [T00519]	234	241	2.45354	CCAGATGA	0.10703	0.07462
LAPTM4B*1 allele	Myf-3 [T00519]	336	343	0	GCAGCTGG	0.1376	0.19853
LAPTM4B*1 allele	MyoD [T00525]	234	241	2.45354	CCAGATGA	0.10703	0.07462
LAPTM4B*1 allele	MyoD [T00525]	336	343	0	GCAGCTGG	0.1376	0.19853
LAPTM4B*1 allele	NF-X3 [T01514]	235	242	5.226274	CAGATGAA	0.08409	0.06977
LAPTM4B*1 allele	NF-X3 [T01514]	456	463	8.793097	CAGAAGCT	0.1376	0.13215
LAPTM4B*1 allele	LCR-F1 [T01599]	238	243	5.346725	ATGAAA	0.61157	0.32824
LAPTM4B*1 allele	LCR-F1 [T01599]	356	361	0.029165	ATGACG	0.48926	0.32166
LAPTM4B*1 allele	p53 [T00671]	45	51	0.525867	GGGCAGG	0.06116	0.15019
LAPTM4B*1 allele	p53 [T00671]	118	124	8.914655	GGGCGAG	0.30579	0.66358
LAPTM4B*1 allele	p53 [T00671]	249	255	9.164941	AAGGCC	0.30579	0.66358
LAPTM4B*1 allele	p53 [T00671]	269	275	7.959461	GGGCCGA	0.18347	0.35414
LAPTM4B*1 allele	p53 [T00671]	346	352	9.966389	GGAGCCC	0.12231	0.36584
LAPTM4B*1 allele	p53 [T00671]	388	394	7.700559	TCCGCC	0.12231	0.23097
LAPTM4B*1 allele	p53 [T00671]	393	399	3.891597	CCGCC	0.18347	0.50311
LAPTM4B*1 allele	p53 [T00671]	489	495	3.624632	CAGGCC	0.09174	0.19797
LAPTM4B*1 allele	EIIaE-A [T00246]	43	49	14.472869	TTGGGCA	0.79504	1.44055
LAPTM4B*1 allele	EIIaE-A [T00246]	66	72	10.118218	CCGGGAG	0.55042	1.06004

LAPTM4B*1 allele	EIIaE-A [T00246]	116	122	10.118218	CTGGGCG	0.55042	1.06004
LAPTM4B*1 allele	EIIaE-A [T00246]	167	173	8.709302	AAGGGAA	0.55042	1.18679
LAPTM4B*1 allele	EIIaE-A [T00246]	251	257	14.472869	GGCCCGG	0.79504	1.44055
LAPTM4B*1 allele	EIIaE-A [T00246]	267	273	10.118218	CAGGGCC	0.55042	1.06004
LAPTM4B*1 allele	EIIaE-A [T00246]	277	283	14.472869	TAGGGGA	0.79504	1.44055
LAPTM4B*1 allele	EIIaE-A [T00246]	290	296	8.709302	GAGGGTG	0.55042	1.18679
LAPTM4B*1 allele	EIIaE-A [T00246]	317	323	14.472869	CCGGGTG	0.79504	1.44055
LAPTM4B*1 allele	EIIaE-A [T00246]	348	354	13.063953	AGCCCGC	0.79504	1.59022
LAPTM4B*1 allele	EIIaE-A [T00246]	390	396	10.118218	CGCCCGG	0.55042	1.06004
LAPTM4B*1 allele	EIIaE-A [T00246]	395	401	8.709302	CGCCCCC	0.55042	1.18679
LAPTM4B*1 allele	EIIaE-A [T00246]	397	403	8.709302	CCCCCTC	0.55042	1.18679
LAPTM4B*1 allele	EIIaE-A [T00246]	401	407	14.472869	CTCCCGG	0.79504	1.44055
LAPTM4B*1 allele	EIIaE-A [T00246]	440	446	13.063953	AAGGGTA	0.79504	1.59022
LAPTM4B*1 allele	EIIaE-A [T00246]	491	497	13.063953	GGCCCGC	0.79504	1.59022
LAPTM4B*1 allele	NHP-1 [T00621]	256	262	9.83	GGACCTC	0.45868	0.37409
LAPTM4B*1 allele	NHP-1 [T00621]	357	363	9.83	TGACGTC	0.45868	0.37409
LAPTM4B*1 allele	NHP-1 [T00621]	358	364	9.83	GACGTCA	0.45868	0.37409
LAPTM4B*1 allele	NHP-1 [T00621]	371	377	6.571346	CGGGTCA	0.09174	0.12311
LAPTM4B*1 allele	TFIIB [T00818]	263	270	11.657154	CACCTAGG	0.19876	0.28089
LAPTM4B*1 allele	XPF-1 [T00906]	263	271	10.392427	CACTCAGGG	0.1376	0.20921
LAPTM4B*1 allele	EBF [T05427]	263	273	6.8994	CACTCAGGGCC	0.00764	0.01846
LAPTM4B*1 allele	MZF-1 [T00529]	277	283	2.220412	TAGGGGA	0.12231	0.16327
LAPTM4B*1 allele	MZF-1 [T00529]	402	408	1.166538	TCCCCGT	0.12231	0.21277
LAPTM4B*1 allele	MZF-1 [T00529]	408	414	0.112664	TCCCCGC	0.12231	0.3098
LAPTM4B*1 allele	NF-kappaB1 [T00593]	279	290	14.056581	GGGACTGGCGG	0.01224	0.02439
LAPTM4B*1 allele	Pax-5 [T00070]	295	301	7.762216	TGCACGC	0.06116	0.12167
LAPTM4B*1 allele	AhR:Arnt [T05394]	297	305	9.325207	CACGCTGAT	0.0516	0.05428
LAPTM4B*1 allele	U2F2 (Oct-2.1) [T006	172	179	8.36845	AAGAAAT	0.06116	0.01676
LAPTM4B*1 allele	U2F2 (Oct-2.1) [T006	308	315	11.697988	ATTACTC	0.05351	0.01894
LAPTM4B*1 allele	RAR-gamma [T00720]	311	318	5.085116	TACTACC	0.06116	0.06447
LAPTM4B*1 allele	Myf-5 [T00521]	329	341	11.871492	AGTCCAGCAGCT	0.01615	0.02459
LAPTM4B*1 allele	Myf-5 [T00521]	332	344	7.122895	TCCAGCAGCTGGC	0.00267	0.00396
LAPTM4B*1 allele	Myf-5 [T00521]	415	427	14.24579	CGCTGCAGCGGTC	0.03006	0.04866
LAPTM4B*1 allele	AP-4 [T00036]	333	343	1.268101	CCAGCAGTGG	0.0037	0.00546
LAPTM4B*1 allele	Tal-1 [T00790]	332	342	14.153038	TCCAGCAGCTG	0.0387	0.04451
LAPTM4B*1 allele	Tal-1 [T00790]	337	347	8.412013	CAGTGGCTGG	0.01935	0.02734
LAPTM4B*1 allele	DP-1 [T01548]	346	355	14.492168	GGAGCCCGCG	0.0516	0.16567
LAPTM4B*1 allele	DP-1 [T01548]	406	415	12.705831	CGTCCCGCC	0.0516	0.14405
LAPTM4B*1 allele	E2F-1 [T01542]	72	78	5.331496	GGCGGAG	0.12231	0.41733
LAPTM4B*1 allele	E2F-1 [T01542]	286	292	5.331496	GGCGGAG	0.12231	0.41733
LAPTM4B*1 allele	E2F-1 [T01542]	349	355	5.944817	GCCCGCG	0.12231	0.39652
LAPTM4B*1 allele	E2F-1 [T01542]	387	393	7.879274	TCCCGCC	0.30579	0.74391
LAPTM4B*1 allele	E2F-1 [T01542]	392	398	3.397038	CCCCGCC	0.18347	0.43342
LAPTM4B*1 allele	E2F-1 [T01542]	409	415	3.397038	CCCCGCC	0.18347	0.43342
LAPTM4B*1 allele	E2F-1 [T01542]	412	418	7.060495	CGCCGCT	0.12231	0.26595
LAPTM4B*1 allele	E2F-1 [T01542]	421	427	10.575502	AGCGGTC	0.12231	0.15928
LAPTM4B*1 allele	E2F-1 [T01542]	492	498	5.944817	GCCCGCG	0.12231	0.39652
LAPTM4B*1 allele	E2F-1 [T01543]	350	358	4.354054	CCCAGCATG	0.0688	0.13723
LAPTM4B*1 allele	E2F-1 [T01543]	393	401	6.363515	CCCCGCC	0.0516	0.23697
LAPTM4B*1 allele	E2F-1 [T01543]	410	418	6.570994	CCCCCGCT	0.0516	0.23697
LAPTM4B*1 allele	E2F-1 [T01543]	492	500	7.224594	CCCCCGGGT	0.0344	0.13242
LAPTM4B*1 allele	USF2b [T02377]	353	360	12.629773	GCATGAC	0.55042	0.43861
LAPTM4B*1 allele	USF2b [T02377]	361	368	11.374018	GTACAGGA	0.27521	0.34414
LAPTM4B*1 allele	USF2b [T02377]	374	381	1.255756	GTACATG	0.06116	0.04568
LAPTM4B*1 allele	c-Jun [T00132]	357	363	4.469954	TGACGTC	0.21405	0.18571
LAPTM4B*1 allele	c-Jun [T00132]	358	364	4.469954	GACGTCA	0.21405	0.18571
LAPTM4B*1 allele	c-Jun [T00132]	371	377	4.522753	CGGGTCA	0.21405	0.18571
LAPTM4B*1 allele	CREMalpha [T01803]	353	364	7.13467	GCGATGACGTCA	0.00753	0.0043
LAPTM4B*1 allele	CREMalpha [T01803]	357	368	5.668944	TGACGTACGGA	0.00251	0.00183
LAPTM4B*1 allele	CREB [T00163]	356	364	0.032925	ATGACGTCA	0.00764	0.00545
LAPTM4B*1 allele	CREB [T00163]	357	365	0.024694	TGACGTCA	0.00764	0.00545
LAPTM4B*1 allele	ATF-2 [T00167]	356	364	0.034254	ATGACGTCA	0.00764	0.00545
LAPTM4B*1 allele	ATF-2 [T00167]	357	365	0	TGACGTCA	0.00764	0.00545
LAPTM4B*1 allele	ATF [T00051]	356	364	0.462475	ATGACGTCA	0.00956	0.00658
LAPTM4B*1 allele	ATF [T00051]	357	365	0.313871	TGACGTCA	0.00956	0.00658
LAPTM4B*1 allele	E4F [T00222]	357	365	12.100443	TGACGTCA	0.04587	0.02801
LAPTM4B*1 allele	c-Fos [T00123]	356	363	10.285697	ATGACGTCA	0.12231	0.0851
LAPTM4B*1 allele	c-Fos [T00123]	358	365	11.816087	GACGTCA	0.0688	0.04757
LAPTM4B*1 allele	c-Fos [T00123]	371	378	11.455199	CGGGTCA	0.10703	0.10587
LAPTM4B*1 allele	ATF-1 [T00968]	355	365	2.828372	GATGACGTCA	0.00167	0.00189
LAPTM4B*1 allele	ATF-1 [T00968]	356	366	3.669682	ATGACGTCA	0.0043	0.00406
LAPTM4B*1 allele	T3R-alpha1 [T01152]	367	377	13.79108	GACTCGGGTCA	0.08314	0.06654
LAPTM4B*1 allele	ER-beta [T04651]	369	377	9.122536	CTCGGGTCA	0.00764	0.00888
LAPTM4B*1 allele	RAR-beta [T00721]	370	377	2.799654	TCGGGTCA	0.05351	0.08056
LAPTM4B*1 allele	ER-alpha [T00261]	371	378	1.367305	CGGGTCA	0.09938	0.09901
LAPTM4B*1 allele	NFI/CTF [T00094]	35	42	2.683003	TCGGTTCG	0.01529	0.02455
LAPTM4B*1 allele	NFI/CTF [T00094]	39	46	8.241664	TGGTTCG	0.04587	0.05391
LAPTM4B*1 allele	NFI/CTF [T00094]	321	328	5.558661	GTGCTTCG	0.1376	0.11996
LAPTM4B*1 allele	NFI/CTF [T00094]	383	390	13.146004	CCAAGTCC	0.27521	0.1551
LAPTM4B*1 allele	Sp3 [T02338]	387	395	5.19869	GTCCGCCCC	0.02293	0.08583
LAPTM4B*1 allele	Sp3 [T02338]	392	400	0	CCCCGCCCC	0.00191	0.01352
LAPTM4B*1 allele	GCF [T00320]	390	400	5.946992	CGCCCGCCCC	0.00323	0.01919
LAPTM4B*1 allele	MAZ [T00490]	393	403	14.391959	CCCGCCCTC	0.03512	0.15075
LAPTM4B*1 allele	MAZ [T00490]	399	409	1.454467	CCCTCCCGTC	0.00418	0.01681
LAPTM4B*1 allele	MAZ [T00490]	405	415	14.561456	CGTCCCGCC	0.03512	0.15075
LAPTM4B*1 allele	WT1 [T00899]	395	405	7.524526	CGCCCTCC	0.00382	0.02276
LAPTM4B*1 allele	WT1 [T00899]	406	416	11.883285	GTCCCGCCG	0.0258	0.10484
LAPTM4B*1 allele	R1 [T00711]	287	298	11.545139	GCGGAGGTGCA	0.0129	0.03427
LAPTM4B*1 allele	R1 [T00711]	395	406	8.256952	CGCCCTCC	0.00932	0.02482

LAPTM4B*1 allele	LF-A1 [T00467]	7	13	9.701266	GGTGGCA	0.55042	0.74465
LAPTM4B*1 allele	LF-A1 [T00467]	43	49	1.561557	TTGGGCA	0.27521	0.49037
LAPTM4B*1 allele	LF-A1 [T00467]	451	457	8.920488	CCCGGCA	0.36694	0.51402
LAPTM4B*1 allele	LF-A1 [T00467]	484	490	5.631412	GGAGGCA	0.27521	0.32654
LAPTM4B*1 allele	GATA-1 [T00306]	476	481	1.908093	GGTATC	0.73389	0.35601
LAPTM4B*1 allele	WT1 I -KTS [T00900]	347	356	14.457704	GAGCCCCGGA	0.04491	0.19021
LAPTM4B*1 allele	WT1 I -KTS [T00900]	394	403	10.053856	CCGCCCCCTC	0.00764	0.04259
LAPTM4B*1 allele	WT1 I -KTS [T00900]	405	414	14.586256	CCGTCCCGC	0.04491	0.19021
LAPTM4B*1 allele	WT1 -KTS [T01839]	347	356	14.457704	GAGCCCCGGA	0.04491	0.19021
LAPTM4B*1 allele	WT1 -KTS [T01839]	394	403	10.053856	CCGCCCCCTC	0.00764	0.04259
LAPTM4B*1 allele	WT1 -KTS [T01839]	405	414	14.586256	CCGTCCCGC	0.04491	0.19021
LAPTM4B*1 allele	IA-1 [T05887]	394	406	6.673112	CCGCCCCCTCCCC	0.00097	0.0038
LAPTM4B*1 allele	ETF [T00270]	387	395	1.261043	GTCCGCCCC	0.02867	0.09432
LAPTM4B*1 allele	ETF [T00270]	392	400	0	CCCCGCCCC	0.00191	0.01352
LAPTM4B*1 allele	NF-1 [T00539]	382	386	0	GCCAA	0.48926	0.54339
LAPTM4B*1 allele	USF2 [T00878]	373	381	3.706299	GGTCACATG	0.01147	0.0105
LAPTM4B*1 allele	T3R-beta1 [T00851]	370	380	13.382055	TCGGGTCACAT	0.0602	0.05079
LAPTM4B*1 allele	ARP-1 [T00045]	369	377	3.301012	CTCGGGTCA	0.00764	0.00821
LAPTM4B*1 allele	E4F1 [T00223]	357	365	0.123447	TGACGTAC	0.03058	0.02893
LAPTM4B*1 allele	E12 [T00204]	332	344	14.548481	TCCAGCAGTGGC	0.00753	0.01182
LAPTM4B*1 allele	TFII-I [T00824]	303	313	6.490932	GATGGAITTAC	0.00764	0.00718
LAPTM4B*1 allele	Pbx1b [T02087]	236	245	14.774452	AGATGAAAGA	0.0516	0.03184
LAPTM4B*1 allele	Pbx1b [T02087]	299	308	8.781358	CGCTGATGGA	0.0258	0.01017
LAPTM4B*1 allele	Arnt [T01346]	297	305	10.586083	CACGCTGAT	0.02293	0.03292
LAPTM4B*1 allele	AhR [T01795]	294	301	2.665859	GTGCACGC	0.11467	0.18662
LAPTM4B*1 allele	RCS1 [T03538]	290	301	9.535158	GAGGGTGCACGC	0.00376	0.00745
LAPTM4B*1 allele	HMG I(Y) [T02368]	170	176	5.151271	GGAAGAA	0.15289	0.11288
LAPTM4B*1 allele	HMG I(Y) [T02368]	185	191	4.951498	GGAACTA	0.15289	0.11288
LAPTM4B*1 allele	HMG I(Y) [T02368]	247	253	7.014009	GGAAGGC	0.15289	0.27476
LAPTM4B*1 allele	STAT4 [T01577]	170	175	4.411765	GGAAGA	0.48926	0.63417
LAPTM4B*1 allele	STAT4 [T01577]	185	190	1.470588	GGAACT	0.48926	0.39374
LAPTM4B*1 allele	STAT4 [T01577]	247	252	5.882353	GGAAGG	0.12231	0.21277
LAPTM4B*1 allele	c-Ets-1 [T00112]	168	174	6.471844	AGGGGAAAG	0.12231	0.173
LAPTM4B*1 allele	c-Ets-1 [T00112]	183	189	4.46609	AAGGAAC	0.15289	0.14506
LAPTM4B*1 allele	c-Ets-1 [T00112]	245	251	0.484609	AAGGAAG	0.09174	0.10593
LAPTM4B*1 allele	ox binding factor [T00	239	248	8.695301	TGAAAGAAGG	0.0559	0.04456
LAPTM4B*1 allele	HSF1 (long) [T01042]	210	217	0	CCTTGAAT	0.02293	0.01458
LAPTM4B*1 allele	HSF1 (short) [T02104]	210	217	0	CCTTGAAT	0.02293	0.01458
LAPTM4B*1 allele	HNF-1B [T01950]	22	29	14.384751	TAATCCCA	0.10703	0.04856
LAPTM4B*1 allele	NFdeltaE3A [T00976]	4	13	13.153012	TGTGGTGGCA	0.0172	0.01577
LAPTM4B*1 allele	AML1a [T02256]	0	9	7.146755	CGGGTGTGGT	0.01386	0.01471

Table S2. LAPT4B*2 allele transcription factor prediction results of online database

Sequence name	Factor name	Start position	End position	Dissimilarity	String	RE equally	RE query
LAPT4B*2 allele	VDR [T00885]	1	4	0	GGGT	2.03125	2.78039
LAPT4B*2 allele	VDR [T00885]	64	67	0	ACCC	2.03125	2.78039
LAPT4B*2 allele	VDR [T00885]	208	211	0	ACCC	2.03125	2.78039
LAPT4B*2 allele	VDR [T00885]	292	295	0	GGGT	2.03125	2.78039
LAPT4B*2 allele	VDR [T00885]	319	322	0	GGGT	2.03125	2.78039
LAPT4B*2 allele	VDR [T00885]	391	394	0	GGGT	2.03125	2.78039
LAPT4B*2 allele	VDR [T00885]	461	464	0	GGGT	2.03125	2.78039
LAPT4B*2 allele	VDR [T00885]	469	472	0	ACCC	2.03125	2.78039
LAPT4B*2 allele	VDR [T00885]	494	497	0	GGGT	2.03125	2.78039
LAPT4B*2 allele	WT1 I [T01840]	3	9	5.136498	GTGTGGT	0.19043	0.27782
LAPT4B*2 allele	WT1 I [T01840]	85	91	8.128015	GTGAGCC	0.19043	0.2886
LAPT4B*2 allele	WT1 I [T01840]	311	317	7.513446	TACTCAC	0.09521	0.10337
LAPT4B*2 allele	ENKTF-1 [T00255]	9	16	13.885529	TGGCAAGC	0.28564	0.40596
LAPT4B*2 allele	ENKTF-1 [T00255]	96	103	6.942764	TCGCGCCA	0.38086	0.5915
LAPT4B*2 allele	ENKTF-1 [T00255]	229	236	12.629773	AACGGCCA	0.57129	0.68978
LAPT4B*2 allele	ENKTF-1 [T00255]	285	292	1.255756	TGGCGGAG	0.06348	0.12883
LAPT4B*2 allele	ENKTF-1 [T00255]	360	367	13.885529	TGGCTGGA	0.28564	0.40596
LAPT4B*2 allele	ENKTF-1 [T00255]	397	404	6.942764	CATGGCCA	0.38086	0.5915
LAPT4B*2 allele	ENKTF-1 [T00255]	399	406	6.942764	TGGCCAAG	0.38086	0.5915
LAPT4B*2 allele	p300 [T01427]	23	27	1.540766	AATCC	0.50781	0.32684
LAPT4B*2 allele	p300 [T01427]	50	54	3.482089	GGAGA	1.01562	1.66661
LAPT4B*2 allele	p300 [T01427]	69	73	3.482089	GGAGG	1.01562	1.66661
LAPT4B*2 allele	p300 [T01427]	75	79	3.482089	GGAGG	1.01562	1.66661
LAPT4B*2 allele	p300 [T01427]	108	112	0.770383	ACTCC	0.50781	0.5441
LAPT4B*2 allele	p300 [T01427]	170	174	5.408046	GGAAG	1.01562	1.12972
LAPT4B*2 allele	p300 [T01427]	185	189	5.795432	GGAAC	0.50781	0.60764
LAPT4B*2 allele	p300 [T01427]	218	222	0.770383	GGAGT	0.50781	0.5441
LAPT4B*2 allele	p300 [T01427]	247	251	5.408046	GGAAG	1.01562	1.12972
LAPT4B*2 allele	p300 [T01427]	256	260	3.099092	GGACC	0.50781	0.86923
LAPT4B*2 allele	p300 [T01427]	259	263	3.482089	CCTCC	1.01562	1.66661
LAPT4B*2 allele	p300 [T01427]	281	285	0	GGACT	0.50781	0.52761
LAPT4B*2 allele	p300 [T01427]	289	293	3.482089	GGAGG	1.01562	1.66661
LAPT4B*2 allele	p300 [T01427]	306	310	1.540766	GGATT	0.50781	0.32684
LAPT4B*2 allele	p300 [T01427]	327	331	3.869475	GGAGC	0.50781	0.91795
LAPT4B*2 allele	p300 [T01427]	330	334	3.869475	GCTCC	0.50781	0.91795
LAPT4B*2 allele	p300 [T01427]	346	350	3.869475	GGAGC	0.50781	0.91795
LAPT4B*2 allele	p300 [T01427]	349	353	3.869475	GCTCC	0.50781	0.91795
LAPT4B*2 allele	p300 [T01427]	365	369	3.869475	GGAGC	0.50781	0.91795
LAPT4B*2 allele	p300 [T01427]	385	389	0	GGACT	0.50781	0.52761
LAPT4B*2 allele	p300 [T01427]	405	409	0	AGTCC	0.50781	0.52761
LAPT4B*2 allele	p300 [T01427]	419	423	3.482089	CCTCC	1.01562	1.66661
LAPT4B*2 allele	p300 [T01427]	425	429	2.711705	CGTCC	1.52344	1.87952
LAPT4B*2 allele	p300 [T01427]	453	457	3.869475	GGAGC	0.50781	0.91795
LAPT4B*2 allele	p300 [T01427]	484	488	3.869475	GGAGC	0.50781	0.91795
LAPT4B*2 allele	p300 [T01427]	503	507	3.482089	GGAGG	1.01562	1.66661
LAPT4B*2 allele	R2 [T00712]	25	30	14.26934	TCCAG	1.52344	1.74102
LAPT4B*2 allele	R2 [T00712]	47	52	11.337888	GCAGGA	0.63477	0.89231
LAPT4B*2 allele	R2 [T00712]	72	77	9.512894	GGCGGA	1.9043	2.12254
LAPT4B*2 allele	R2 [T00712]	110	115	1.824994	TCCAGC	0.12695	0.16258
LAPT4B*2 allele	R2 [T00712]	167	172	14.26934	AAGGGA	1.52344	1.74102
LAPT4B*2 allele	R2 [T00712]	215	220	9.512894	AATGGA	1.9043	2.12254
LAPT4B*2 allele	R2 [T00712]	244	249	9.512894	GAAGGA	1.9043	2.12254
LAPT4B*2 allele	R2 [T00712]	261	266	9.512894	TCCACT	1.9043	2.12254
LAPT4B*2 allele	R2 [T00712]	278	283	14.26934	AGGGGA	1.52344	1.74102
LAPT4B*2 allele	R2 [T00712]	286	291	9.512894	GGCGGA	1.9043	2.12254
LAPT4B*2 allele	R2 [T00712]	303	308	0	GATGGA	0.38086	0.38152
LAPT4B*2 allele	R2 [T00712]	324	329	9.512894	CTTGGA	1.9043	2.12254
LAPT4B*2 allele	R2 [T00712]	332	337	1.824994	TCCAGC	0.12695	0.16258
LAPT4B*2 allele	R2 [T00712]	343	348	9.512894	CTTGGA	1.9043	2.12254
LAPT4B*2 allele	R2 [T00712]	351	356	1.824994	TCCAGC	0.12695	0.16258
LAPT4B*2 allele	R2 [T00712]	362	367	1.824994	GCTGGA	0.12695	0.16258
LAPT4B*2 allele	R2 [T00712]	407	412	9.512894	TCCGCC	1.9043	2.12254
LAPT4B*2 allele	R2 [T00712]	421	426	14.26934	TCCCG	1.52344	1.74102
LAPT4B*2 allele	R2 [T00712]	427	432	14.26934	TCCCG	1.52344	1.74102
LAPT4B*2 allele	R2 [T00712]	450	455	14.26934	TTCGGA	1.52344	1.74102
LAPT4B*2 allele	Ik-1 [T02702]	25	37	4.748597	TCCCAGTACTCG	0.00081	0.00156
LAPT4B*2 allele	AIRE [T05990]	39	48	10.110876	TTGGTTGGGC	0.04265	0.03058
LAPT4B*2 allele	Elk-1 [T00250]	23	27	6.853012	AATCC	1.52344	1.52572

LAPTM4B*2 allele	Elk-1 [T00250]	50	54	7.213232	GGAGA	1.52344	1.52572
LAPTM4B*2 allele	Elk-1 [T00250]	69	73	5.092035	GGAGG	0.50781	0.99535
LAPTM4B*2 allele	Elk-1 [T00250]	75	79	5.092035	GGAGG	0.50781	0.99535
LAPTM4B*2 allele	Elk-1 [T00250]	108	112	7.984576	ACTCC	0.50781	0.5441
LAPTM4B*2 allele	Elk-1 [T00250]	170	174	0	GGAAG	0.50781	0.67126
LAPTM4B*2 allele	Elk-1 [T00250]	185	189	2.314032	GGAAC	0.50781	0.60764
LAPTM4B*2 allele	Elk-1 [T00250]	218	222	7.984576	GGAGT	0.50781	0.5441
LAPTM4B*2 allele	Elk-1 [T00250]	247	251	0	GGAAG	0.50781	0.67126
LAPTM4B*2 allele	Elk-1 [T00250]	256	260	6.274504	GGACC	1.01562	1.39684
LAPTM4B*2 allele	Elk-1 [T00250]	259	263	5.092035	CCTCC	0.50781	0.99535
LAPTM4B*2 allele	Elk-1 [T00250]	281	285	6.853012	GGACT	1.52344	1.52572
LAPTM4B*2 allele	Elk-1 [T00250]	289	293	5.092035	GGAGG	0.50781	0.99535
LAPTM4B*2 allele	Elk-1 [T00250]	306	310	6.853012	GGATT	1.52344	1.52572
LAPTM4B*2 allele	Elk-1 [T00250]	327	331	7.406067	GGAGC	0.50781	0.91795
LAPTM4B*2 allele	Elk-1 [T00250]	330	334	7.406067	GCTCC	0.50781	0.91795
LAPTM4B*2 allele	Elk-1 [T00250]	346	350	7.406067	GGAGC	0.50781	0.91795
LAPTM4B*2 allele	Elk-1 [T00250]	349	353	7.406067	GCTCC	0.50781	0.91795
LAPTM4B*2 allele	Elk-1 [T00250]	365	369	7.406067	GGAGC	0.50781	0.91795
LAPTM4B*2 allele	Elk-1 [T00250]	385	389	6.853012	GGACT	1.52344	1.52572
LAPTM4B*2 allele	Elk-1 [T00250]	405	409	6.853012	AGTCC	1.52344	1.52572
LAPTM4B*2 allele	Elk-1 [T00250]	419	423	5.092035	CCTCC	0.50781	0.99535
LAPTM4B*2 allele	Elk-1 [T00250]	425	429	3.960472	CGTCC	1.01562	1.46205
LAPTM4B*2 allele	Elk-1 [T00250]	453	457	7.406067	GGAGC	0.50781	0.91795
LAPTM4B*2 allele	Elk-1 [T00250]	484	488	7.406067	GGAGC	0.50781	0.91795
LAPTM4B*2 allele	Elk-1 [T00250]	503	507	5.092035	GGAGG	0.50781	0.99535
LAPTM4B*2 allele	R-beta:RXR-alpha [T05	56	67	12.463326	TCGCTTGAACCC	0.03403	0.0696
LAPTM4B*2 allele	Nkx2-1 [T00857]	67	73	1.361249	CGGGAGG	0.09521	0.23977
LAPTM4B*2 allele	Nkx2-1 [T00857]	73	79	4.033796	GCGGAGG	0.22217	0.34697
LAPTM4B*2 allele	Nkx2-1 [T00857]	259	265	2.672547	CCTCCAC	0.03174	0.05358
LAPTM4B*2 allele	Nkx2-1 [T00857]	287	293	4.033796	GCGGAGG	0.22217	0.34697
LAPTM4B*2 allele	Nkx2-1 [T00857]	419	425	4.033796	CCTCCCC	0.22217	0.34697
LAPTM4B*2 allele	Nkx2-1 [T00857]	498	504	4.912497	ATCGAGG	0.44434	0.45317
LAPTM4B*2 allele	Nkx2-1 [T00857]	501	507	4.033796	GAGGAGG	0.22217	0.34697
LAPTM4B*2 allele	AP-2alphaA [T00035]	17	22	1.437215	GCCTGT	0.12695	0.17759
LAPTM4B*2 allele	AP-2alphaA [T00035]	69	74	2.003202	GGAGGC	0.25391	0.56136
LAPTM4B*2 allele	AP-2alphaA [T00035]	114	119	0.159691	GCCTGG	0.25391	0.53157
LAPTM4B*2 allele	AP-2alphaA [T00035]	248	253	3.004803	GAAGGC	0.38086	0.53417
LAPTM4B*2 allele	AP-2alphaA [T00035]	447	452	3.004803	GCCTTC	0.38086	0.53417
LAPTM4B*2 allele	AP-2alphaA [T00035]	503	508	2.003202	GGAGGC	0.25391	0.56136
LAPTM4B*2 allele	AP-2alphaA [T00035]	507	512	0	GCAGGC	0.25391	0.53157
LAPTM4B*2 allele	Sp1 [T00759]	69	77	9.532578	GGAGGCGGA	0.05356	0.16378
LAPTM4B*2 allele	Sp1 [T00759]	283	291	11.706922	ACTGGCGGA	0.04364	0.08976
LAPTM4B*2 allele	Sp1 [T00759]	407	415	2.421386	TCCGCCCCG	0.02182	0.08543
LAPTM4B*2 allele	Sp1 [T00759]	412	420	0	CCCGCCCCC	0.00793	0.04405
LAPTM4B*2 allele	Sp1 [T00759]	429	437	8.565378	CCCGCCGCT	0.03571	0.1167
LAPTM4B*2 allele	C/EBPalphA [T00108]	9	14	3.200469	TGGCAA	0.76172	0.81548
LAPTM4B*2 allele	C/EBPalphA [T00108]	80	85	0.527529	TTGCAG	0.25391	0.16214
LAPTM4B*2 allele	C/EBPalphA [T00108]	104	109	0	TTGCAC	0.25391	0.17301
LAPTM4B*2 allele	C/EBPalphA [T00108]	179	184	3.022085	TCGCAA	0.76172	0.81548
LAPTM4B*2 allele	C/EBPbeta [T00581]	8	14	4.807336	GTGGCAA	0.25391	0.21138
LAPTM4B*2 allele	C/EBPbeta [T00581]	80	86	4.329855	TTGCAGT	0.22217	0.16143
LAPTM4B*2 allele	C/EBPbeta [T00581]	104	110	0.805985	TTGCACT	0.09521	0.0763
LAPTM4B*2 allele	C/EBPbeta [T00581]	178	184	4.807336	ATCGCAA	0.25391	0.21138
LAPTM4B*2 allele	E2F-1:DP-1 [T05204]	95	103	2.513294	ATCGCGCCA	0.00595	0.01109
LAPTM4B*2 allele	E2F-1:DP-1 [T05204]	285	293	14.802692	TGGCGGAGG	0.03174	0.07884
LAPTM4B*2 allele	E2F-1:DP-1 [T05204]	410	418	12.662304	GCCCCGCC	0.07538	0.2151
LAPTM4B*2 allele	E2F-1:DP-1 [T05204]	427	435	10.023625	TCCCCGCCG	0.04562	0.11667
LAPTM4B*2 allele	CUTL1 [T00100]	103	108	2.06853	ATTGCA	0.76172	0.43815
LAPTM4B*2 allele	XR:RXR-alpha [T05670]	103	111	11.263007	ATTGCACTC	0.03174	0.02398
LAPTM4B*2 allele	BTEB3 [T05051]	71	79	3.496398	AGGCGGAGG	0.01984	0.03464
LAPTM4B*2 allele	BTEB3 [T05051]	108	116	14.933149	ACTCCAGCC	0.06348	0.10054
LAPTM4B*2 allele	BTEB3 [T05051]	214	222	12.17827	GAATGGAGT	0.09125	0.13877
LAPTM4B*2 allele	BTEB3 [T05051]	259	267	7.847399	CCTCCACTC	0.05951	0.11517
LAPTM4B*2 allele	BTEB3 [T05051]	285	293	11.761034	TGGCGGAGG	0.09125	0.13877
LAPTM4B*2 allele	BTEB3 [T05051]	419	427	5.813911	CCTCCCCGT	0.0119	0.01657
LAPTM4B*2 allele	E47 [T00207]	26	32	4.682492	CCCAGCT	0.25391	0.37276
LAPTM4B*2 allele	E47 [T00207]	110	116	4.327662	TCCAGCC	0.25391	0.37276
LAPTM4B*2 allele	E47 [T00207]	114	120	5.305872	GCCTGGG	0.22217	0.31418
LAPTM4B*2 allele	E47 [T00207]	233	239	0	GCCAGAT	0.06348	0.08332
LAPTM4B*2 allele	E47 [T00207]	282	288	4.485315	GACTGGC	0.25391	0.37276

LAPTM4B*2 allele	E47 [T00207]	332	338	5.510905	TCCAGCA	0.22217	0.31418
LAPTM4B*2 allele	E47 [T00207]	351	357	5.510905	TCCAGCA	0.22217	0.31418
LAPTM4B*2 allele	E47 [T00207]	357	363	3.634763	AGCTGGC	0.03174	0.04895
LAPTM4B*2 allele	E47 [T00207]	361	367	4.627662	GGCTGGA	0.25391	0.37276
LAPTM4B*2 allele	SRY [T00997]	121	127	6.723683	CGACAAG	0.25391	0.2916
LAPTM4B*2 allele	MBF1 [T00492]	141	151	14.636473	CTCAAAAAAAAA	0.06025	0.01851
LAPTM4B*2 allele	MBF1 [T00492]	192	202	14.636473	GACTAAAAGAA	0.06025	0.01851
LAPTM4B*2 allele	STAT5A [T04683]	170	173	0	GGAA	2.03125	2.09129
LAPTM4B*2 allele	STAT5A [T04683]	185	188	0	GGAA	2.03125	2.09129
LAPTM4B*2 allele	STAT5A [T04683]	247	250	0	GGAA	2.03125	2.09129
LAPTM4B*2 allele	POU3F2 [T00630]	176	182	9.725533	AAATCGC	0.06348	0.04187
LAPTM4B*2 allele	POU3F2 [T00630]	305	311	0.252682	TGGATTT	0.19043	0.05446
LAPTM4B*2 allele	FOXP3 [T04280]	175	183	14.668224	AAAATCGCA	0.00793	0.00413
LAPTM4B*2 allele	c-Ets-2 [T00113]	184	191	2.827022	AGGAACTA	0.09521	0.07905
LAPTM4B*2 allele	c-Ets-2 [T00113]	246	253	4.629332	AGGAAGGC	0.14282	0.14249
LAPTM4B*2 allele	c-Myb [T00137]	186	193	13.847077	GAACTAGA	0.06348	0.03251
LAPTM4B*2 allele	c-Myb [T00137]	217	224	12.979731	TGGAGTTA	0.14282	0.07497
LAPTM4B*2 allele	AP-3 (2) [T00039]	194	200	11.290546	CTAAAAG	0.38086	0.20639
LAPTM4B*2 allele	HNF-3beta [T02513]	195	201	3.504129	TAAAAGA	0.31738	0.134
LAPTM4B*2 allele	HNF-3beta [T02513]	306	312	3.66377	GGATTTA	0.31738	0.134
LAPTM4B*2 allele	YY1 [T00915]	101	107	7.55849	CCATTGC	0.34912	0.35388
LAPTM4B*2 allele	YY1 [T00915]	213	219	8.35288	TGAATGG	0.31738	0.2638
LAPTM4B*2 allele	YY1 [T00915]	301	307	7.441476	CTGATGG	0.34912	0.35388
LAPTM4B*2 allele	YY1 [T00915]	395	401	3.973697	CACATGG	0.12695	0.10167
LAPTM4B*2 allele	Hlf [T01071]	221	229	6.667463	GTTACACGA	0.02579	0.01154
LAPTM4B*2 allele	Myf-3 [T00519]	234	241	2.45354	CCAGATGA	0.11108	0.07762
LAPTM4B*2 allele	Myf-3 [T00519]	336	343	0	GCAGCTGC	0.14282	0.20809
LAPTM4B*2 allele	Myf-3 [T00519]	355	362	0	GCAGCTGG	0.14282	0.20809
LAPTM4B*2 allele	MyoD [T00525]	234	241	2.45354	CCAGATGA	0.11108	0.07762
LAPTM4B*2 allele	MyoD [T00525]	336	343	0	GCAGCTGC	0.14282	0.20809
LAPTM4B*2 allele	MyoD [T00525]	355	362	0	GCAGCTGG	0.14282	0.20809
LAPTM4B*2 allele	NF-X3 [T01514]	235	242	5.226274	CAGATGAA	0.08728	0.07246
LAPTM4B*2 allele	NF-X3 [T01514]	475	482	8.793097	CAGAAGCT	0.14282	0.13528
LAPTM4B*2 allele	LCR-F1 [T01599]	238	243	5.346725	ATGAAA	0.63477	0.33882
LAPTM4B*2 allele	LCR-F1 [T01599]	375	380	0.029165	ATGACC	0.50781	0.33515
LAPTM4B*2 allele	p53 [T00671]	45	51	0.525867	GGGCAGG	0.06348	0.15461
LAPTM4B*2 allele	p53 [T00671]	118	124	8.914655	GGGCGAC	0.31738	0.69283
LAPTM4B*2 allele	p53 [T00671]	249	255	9.164941	AAGCCC	0.31738	0.69283
LAPTM4B*2 allele	p53 [T00671]	269	275	7.959461	GGGCCGA	0.19043	0.36751
LAPTM4B*2 allele	p53 [T00671]	365	371	9.966389	GGAGCCC	0.12695	0.38348
LAPTM4B*2 allele	p53 [T00671]	407	413	7.700559	TCCGCC	0.12695	0.24071
LAPTM4B*2 allele	p53 [T00671]	412	418	3.891597	CCCGCC	0.19043	0.52463
LAPTM4B*2 allele	p53 [T00671]	508	514	3.624632	CAGCCC	0.09521	0.20746
LAPTM4B*2 allele	EIIaE-A [T00246]	43	49	14.472869	TTGGGCA	0.8252	1.50151
LAPTM4B*2 allele	EIIaE-A [T00246]	66	72	10.118218	CCGGGAG	0.57129	1.10588
LAPTM4B*2 allele	EIIaE-A [T00246]	116	122	10.118218	CTGGGCG	0.57129	1.10588
LAPTM4B*2 allele	EIIaE-A [T00246]	167	173	8.709302	AAGGGAA	0.57129	1.22589
LAPTM4B*2 allele	EIIaE-A [T00246]	251	257	14.472869	GGCCCGG	0.8252	1.50151
LAPTM4B*2 allele	EIIaE-A [T00246]	267	273	10.118218	CAGGGCC	0.57129	1.10588
LAPTM4B*2 allele	EIIaE-A [T00246]	277	283	14.472869	TAGGGGA	0.8252	1.50151
LAPTM4B*2 allele	EIIaE-A [T00246]	290	296	8.709302	GAGGGTG	0.57129	1.22589
LAPTM4B*2 allele	EIIaE-A [T00246]	317	323	14.472869	CCGGGTG	0.8252	1.50151
LAPTM4B*2 allele	EIIaE-A [T00246]	367	373	13.063953	AGCCCGC	0.8252	1.64315
LAPTM4B*2 allele	EIIaE-A [T00246]	409	415	10.118218	CGCCCGC	0.57129	1.10588
LAPTM4B*2 allele	EIIaE-A [T00246]	414	420	8.709302	CGCCCCC	0.57129	1.22589
LAPTM4B*2 allele	EIIaE-A [T00246]	416	422	8.709302	CCCCCTC	0.57129	1.22589
LAPTM4B*2 allele	EIIaE-A [T00246]	420	426	14.472869	CTCCCC	0.8252	1.50151
LAPTM4B*2 allele	EIIaE-A [T00246]	459	465	13.063953	AAGGGTA	0.8252	1.64315
LAPTM4B*2 allele	EIIaE-A [T00246]	510	516	13.063953	GGCCCGC	0.8252	1.64315
LAPTM4B*2 allele	NHP-1 [T00621]	256	262	9.83	GGACCTC	0.47607	0.38993
LAPTM4B*2 allele	NHP-1 [T00621]	376	382	9.83	TGACGTC	0.47607	0.38993
LAPTM4B*2 allele	NHP-1 [T00621]	377	383	9.83	GACGTCA	0.47607	0.38993
LAPTM4B*2 allele	NHP-1 [T00621]	390	396	6.571346	CGGGTCA	0.09521	0.12898
LAPTM4B*2 allele	TFIIIB [T00818]	263	270	11.657154	CACTCAGG	0.2063	0.2925
LAPTM4B*2 allele	EBF [T05427]	263	273	6.8994	CACTCAGGGCC	0.00793	0.01932
LAPTM4B*2 allele	MZF-1 [T00529]	277	283	2.220412	TAGGGGA	0.12695	0.17016
LAPTM4B*2 allele	MZF-1 [T00529]	421	427	1.166538	TCCCGGT	0.12695	0.21649
LAPTM4B*2 allele	MZF-1 [T00529]	427	433	0.112664	TCCCGCC	0.12695	0.31845
LAPTM4B*2 allele	NF-kappaB1 [T00593]	279	290	14.056581	GGGGACTGGCCG	0.01271	0.02532
LAPTM4B*2 allele	Pax-5 [T00070]	295	301	7.762216	TGCACGC	0.06348	0.12759

LAPTM4B*2 allele	AhR:Arnt [T05394]	297	305	9.325207	CACGCTGAT	0.05356	0.05649
LAPTM4B*2 allele	OU2F2 (Oct-2.1) [T0064]	172	179	8.36845	AAGAAAAT	0.06348	0.0172
LAPTM4B*2 allele	OU2F2 (Oct-2.1) [T0064]	308	315	11.697988	ATTTACTC	0.05554	0.01943
LAPTM4B*2 allele	RAR-gamma [T00720]	311	318	5.085116	TACTCACC	0.06348	0.06732
LAPTM4B*2 allele	Myf-5 [T00521]	329	341	11.871492	AGCTCCAGCAGCT	0.01676	0.0256
LAPTM4B*2 allele	Myf-5 [T00521]	332	344	14.24579	TCCAGCAGCTGCT	0.0312	0.05065
LAPTM4B*2 allele	Myf-5 [T00521]	348	360	11.871492	AGCTCCAGCAGCT	0.01676	0.0256
LAPTM4B*2 allele	Myf-5 [T00521]	351	363	7.122895	TCCAGCAGCTGGC	0.00277	0.00412
LAPTM4B*2 allele	Myf-5 [T00521]	434	446	14.24579	CGCTGCAGCGGTC	0.0312	0.05065
LAPTM4B*2 allele	AP-4 [T00036]	333	343	2.654666	CCAGCAGCTGC	0.00471	0.00621
LAPTM4B*2 allele	AP-4 [T00036]	352	362	1.268101	CCAGCAGCTGG	0.00384	0.00573
LAPTM4B*2 allele	Tal-1 [T00790]	332	342	14.153038	TCCAGCAGCTG	0.04017	0.04655
LAPTM4B*2 allele	Tal-1 [T00790]	337	347	9.947032	CAGCTGCTTGG	0.01339	0.01658
LAPTM4B*2 allele	Tal-1 [T00790]	351	361	14.153038	TCCAGCAGCTG	0.04017	0.04655
LAPTM4B*2 allele	Tal-1 [T00790]	356	366	8.412013	CAGCTGGCTGG	0.02008	0.02862
LAPTM4B*2 allele	DP-1 [T01548]	365	374	14.492168	GGAGCCCGCG	0.05356	0.17372
LAPTM4B*2 allele	DP-1 [T01548]	425	434	12.705831	CGTCCCGGCC	0.05356	0.15075
LAPTM4B*2 allele	E2F-1 [T01542]	72	78	5.331496	GGCGGAG	0.12695	0.43536
LAPTM4B*2 allele	E2F-1 [T01542]	286	292	5.331496	GGCGGAG	0.12695	0.43536
LAPTM4B*2 allele	E2F-1 [T01542]	368	374	5.944817	GCCCGCC	0.12695	0.4156
LAPTM4B*2 allele	E2F-1 [T01542]	406	412	7.879274	GTCCCGC	0.31738	0.77859
LAPTM4B*2 allele	E2F-1 [T01542]	411	417	3.397038	CCCCGCC	0.19043	0.45057
LAPTM4B*2 allele	E2F-1 [T01542]	428	434	3.397038	CCCCGCC	0.19043	0.45057
LAPTM4B*2 allele	E2F-1 [T01542]	431	437	7.060495	CGCCGCT	0.12695	0.27655
LAPTM4B*2 allele	E2F-1 [T01542]	440	446	10.575502	AGCGGTC	0.12695	0.16594
LAPTM4B*2 allele	E2F-1 [T01542]	511	517	5.944817	GCCCGCG	0.12695	0.4156
LAPTM4B*2 allele	USF2b [T02377]	372	379	12.629773	GCGATGAC	0.57129	0.45763
LAPTM4B*2 allele	USF2b [T02377]	380	387	11.374018	GTCACGGA	0.28564	0.36021
LAPTM4B*2 allele	USF2b [T02377]	393	400	1.255756	GTCACATG	0.06348	0.04771
LAPTM4B*2 allele	c-Jun [T00132]	376	382	4.469954	TGACGTC	0.22217	0.19361
LAPTM4B*2 allele	c-Jun [T00132]	377	383	4.469954	GACGTCA	0.22217	0.19361
LAPTM4B*2 allele	c-Jun [T00132]	390	396	4.522753	CGGGTCA	0.22217	0.19361
LAPTM4B*2 allele	CREMalpha [T01803]	372	383	7.13467	GCGATGACGTCA	0.00781	0.00451
LAPTM4B*2 allele	CREMalpha [T01803]	376	387	5.668944	TGACGTACCGGA	0.0026	0.00192
LAPTM4B*2 allele	CREB [T00163]	375	383	0.032925	ATGACGTCA	0.00793	0.00573
LAPTM4B*2 allele	CREB [T00163]	376	384	0.024694	TGACGTAC	0.00793	0.00573
LAPTM4B*2 allele	ATF-2 [T00167]	375	383	0.034254	ATGACGTCA	0.00793	0.00573
LAPTM4B*2 allele	ATF-2 [T00167]	376	384	0	TGACGTAC	0.00793	0.00573
LAPTM4B*2 allele	ATF [T00051]	375	383	0.462475	ATGACGTCA	0.00992	0.0069
LAPTM4B*2 allele	ATF [T00051]	376	384	0.313871	TGACGTAC	0.00992	0.0069
LAPTM4B*2 allele	E4F [T00222]	376	384	12.100443	TGACGTAC	0.04761	0.02929
LAPTM4B*2 allele	c-Fos [T00123]	375	382	10.285697	ATGACGTC	0.12695	0.08854
LAPTM4B*2 allele	c-Fos [T00123]	377	384	11.816087	GACGTAC	0.07141	0.04964
LAPTM4B*2 allele	c-Fos [T00123]	390	397	11.455199	CGGGTCA	0.11108	0.11085
LAPTM4B*2 allele	ATF-1 [T00968]	374	384	2.828372	GATGACGTAC	0.00174	0.00198
LAPTM4B*2 allele	ATF-1 [T00968]	375	385	3.669682	ATGACGTACCG	0.00446	0.00424
LAPTM4B*2 allele	Pax-2 [T01823]	373	379	3.495993	CGATGAC	0.15869	0.13025
LAPTM4B*2 allele	Pax-2 [T01823]	380	386	0.127056	GTCACGG	0.09521	0.11036
LAPTM4B*2 allele	Pax-2 [T01823]	393	399	5.131658	GTCACAT	0.31738	0.20576
LAPTM4B*2 allele	T3R-alpha1 [T01152]	386	396	13.79108	GACTCGGGTCA	0.08629	0.06956
LAPTM4B*2 allele	ER-beta [T04651]	388	396	9.122536	CTCGGGTCA	0.00793	0.00932
LAPTM4B*2 allele	RAR-beta [T00721]	389	396	2.799654	TCGGGTCA	0.05554	0.08434
LAPTM4B*2 allele	ER-alpha [T00261]	390	397	1.367305	CGGGTCA	0.10315	0.10323
LAPTM4B*2 allele	NFI/CTF [T00094]	35	42	2.683003	TCGGTTGG	0.01587	0.02556
LAPTM4B*2 allele	NFI/CTF [T00094]	39	46	8.241664	TTGGTTGG	0.04761	0.05623
LAPTM4B*2 allele	NFI/CTF [T00094]	321	328	5.558661	GTGCTTGG	0.14282	0.12536
LAPTM4B*2 allele	NFI/CTF [T00094]	340	347	6.786076	CTGCTTGG	0.19043	0.18766
LAPTM4B*2 allele	NFI/CTF [T00094]	402	409	13.146004	CCAAGTCC	0.28564	0.16129
LAPTM4B*2 allele	Sp3 [T02338]	406	414	5.19869	GTCGCCCC	0.0238	0.08976
LAPTM4B*2 allele	Sp3 [T02338]	411	419	0	CCCCGCCCC	0.00198	0.01404
LAPTM4B*2 allele	GCF [T00320]	409	419	5.946992	CGCCCCGCCCC	0.00335	0.02016
LAPTM4B*2 allele	MAZ [T00490]	412	422	14.391959	CCCCGCCCTC	0.03645	0.15404
LAPTM4B*2 allele	MAZ [T00490]	418	428	1.454467	CCCTCCCCGTC	0.00434	0.01712
LAPTM4B*2 allele	MAZ [T00490]	424	434	14.561456	CCGTCCCCGCC	0.03645	0.15404
LAPTM4B*2 allele	WT1 [T00899]	414	424	7.524526	CGCCCCCTCCC	0.00397	0.02354
LAPTM4B*2 allele	WT1 [T00899]	425	435	11.883285	CGTCCCCGCCG	0.02678	0.10948
LAPTM4B*2 allele	R1 [T00711]	287	298	11.545139	GCGGAGGGTGCA	0.01339	0.03527
LAPTM4B*2 allele	R1 [T00711]	414	425	8.256952	CGCCCCCTCCCC	0.00967	0.02533
LAPTM4B*2 allele	LF-A1 [T00467]	7	13	9.701266	GGTGGCA	0.57129	0.77751
LAPTM4B*2 allele	LF-A1 [T00467]	43	49	1.561557	TTGGGCA	0.28564	0.50919

LAPTM4B*2 allele	LF-A1 [T00467]	470	476	8.920488	CCCGGCA	0.38086	0.53601
LAPTM4B*2 allele	LF-A1 [T00467]	503	509	5.631412	GGAGGCA	0.28564	0.33644
LAPTM4B*2 allele	GATA-1 [T00306]	495	500	1.908093	GGTATC	0.76172	0.37136
LAPTM4B*2 allele	WT1 I -KTS [T00900]	366	375	14.457704	GAGCCCGCGA	0.04662	0.19835
LAPTM4B*2 allele	WT1 I -KTS [T00900]	413	422	10.053856	CCGCCCCCTC	0.00793	0.04425
LAPTM4B*2 allele	WT1 I -KTS [T00900]	424	433	14.586256	CCGTCCCCGC	0.04662	0.19835
LAPTM4B*2 allele	WT1 -KTS [T01839]	366	375	14.457704	GAGCCCGCGA	0.04662	0.19835
LAPTM4B*2 allele	WT1 -KTS [T01839]	413	422	10.053856	CCGCCCCCTC	0.00793	0.04425
LAPTM4B*2 allele	WT1 -KTS [T01839]	424	433	14.586256	CCGTCCCCGC	0.04662	0.19835
LAPTM4B*2 allele	IA-1 [T05887]	413	425	6.673112	CCGCCCCCTCCCC	0.00101	0.00392
LAPTM4B*2 allele	ETF [T00270]	406	414	1.261043	GTCCGCCCC	0.02975	0.09859
LAPTM4B*2 allele	ETF [T00270]	411	419	0	CCCCGCCCC	0.00198	0.01404
LAPTM4B*2 allele	NF-1 [T00539]	401	405	0	GCCAA	0.50781	0.56301
LAPTM4B*2 allele	USF2 [T00878]	392	400	3.706299	GGTCACATG	0.0119	0.01097
LAPTM4B*2 allele	T3R-beta2 [T01350]	389	397	0.763705	TCGGGTAC	0.00397	0.004
LAPTM4B*2 allele	ARP-1 [T00045]	388	396	3.301012	CTCGGGTCA	0.00793	0.0085
LAPTM4B*2 allele	E4F1 [T00223]	376	384	0.123447	TGACGTAC	0.03174	0.03032
LAPTM4B*2 allele	E12 [T00204]	332	344	14.476348	TCCAGCAGCTGCT	0.00781	0.0123
LAPTM4B*2 allele	E12 [T00204]	351	363	14.548481	TCCAGCAGCTGGC	0.00781	0.0123
LAPTM4B*2 allele	TFII-I [T00824]	303	313	6.490932	GATGGATTAC	0.00793	0.00749
LAPTM4B*2 allele	Pbx1b [T02087]	236	245	14.774452	AGATGAAAGA	0.05356	0.03264
LAPTM4B*2 allele	Pbx1b [T02087]	299	308	8.781358	CGCTGATGGA	0.02678	0.0106
LAPTM4B*2 allele	Arnt [T01346]	297	305	10.586083	CACGCTGAT	0.0238	0.03455
LAPTM4B*2 allele	AhR [T01795]	294	301	2.665859	GTGCACGC	0.11902	0.19485
LAPTM4B*2 allele	HMG I(Y) [T02368]	170	176	5.151271	GGAAGAA	0.15869	0.11562
LAPTM4B*2 allele	HMG I(Y) [T02368]	185	191	4.951498	GGAACTA	0.15869	0.11562
LAPTM4B*2 allele	HMG I(Y) [T02368]	247	253	7.014009	GGAAGGC	0.15869	0.28039
LAPTM4B*2 allele	STAT4 [T01577]	170	175	4.411765	GGAAGA	0.50781	0.64878
LAPTM4B*2 allele	STAT4 [T01577]	185	190	1.470588	GGAACT	0.50781	0.40202
LAPTM4B*2 allele	STAT4 [T01577]	247	252	5.882353	GGAAGG	0.12695	0.21649
LAPTM4B*2 allele	c-Ets-1 [T00112]	168	174	6.471844	AGGGAAG	0.12695	0.17596
LAPTM4B*2 allele	c-Ets-1 [T00112]	183	189	4.46609	AAGGAAC	0.15869	0.14819
LAPTM4B*2 allele	c-Ets-1 [T00112]	245	251	0.484609	AAGGAAG	0.09521	0.10632
LAPTM4B*2 allele	box binding factor [T00	239	248	8.695301	TGAAAGAAGG	0.05802	0.04399
LAPTM4B*2 allele	HSF1 (long) [T01042]	210	217	0	CCTTGAAT	0.0238	0.01528
LAPTM4B*2 allele	HSF1 (short) [T02104]	210	217	0	CCTTGAAT	0.0238	0.01528
LAPTM4B*2 allele	RFX1 [T01673]	79	87	7.500326	GTTGCAGTG	0.0238	0.03075
LAPTM4B*2 allele	HNF-1B [T01950]	22	29	14.384751	TAATCCCA	0.11108	0.05074
LAPTM4B*2 allele	NFdeltaE3A [T00976]	4	13	13.153012	TGTGGTGGCA	0.01785	0.01622
LAPTM4B*2 allele	AML1a [T02256]	0	9	7.146755	CGGGTGTGGT	0.01438	0.01537

TableS3. Primers for luciferase plasmids construction

Name		Sequence
LAPTM4B 5'UTR	Sense	5'-CTCGAGCCCTTGAATGGAGTTACACGAACG-3'
	Anti-sense	5'-AAGCTTCTGCCTCCTCGATACCCCGAGA-3'
LAPTM4B 5'UTR SOE-PCR	Sense	5'-CAGTCAACTGCTGGAGCCCGCGATGAC-3'
	Anti-sense	5'-CAGCAGTTGACTGGAGCTCCAAGCAC-3'

Table S4. The siRNA target sequences of AP4

Name	Sequence
TFAP4 scrambled nc	5'-GGCATCTTCGCAGTTACCT-3'
TFAP4 siRNA #5	5'-CACCATCGTGCAGGCAATCCA-3'
TFAP4 siRNA #4	5'-CAAGGAGAAGCTATTATATTT-3'
TFAP4 siRNA#2	5'-CCTGGGATTGTCAGCCTTCAA-3'

Table S5. The primer of AP4, LAPTM4B and GAPDH

	Sequence
AP4 forward	5'-GCAGGCAATCCAGCACAT-3'
AP4 reverse	5'-GGAGGCGGTGTCAGAGGT-3'
LAPTM4B forward	5'-AAGACCATTAGAAAGCACCAGG-3'
LAPTM4B reverse	5'-ACCAATCTAGGGCAGAACACTTA-3'
GAPDH forward	5'-ACGGATTTGGTCGTATTGGGCG-3'
GAPDH reverse	5'-CTCCTGGAAGATGGTGATGG-3'

Table S6. Antibodies used in WB

Name	Company and ID
anti-pAkt	CST4060
anti-pGSK3	CST5558
anti-Akt	CST9272
anti-c-Myc	CST5605
anti-Cyclin E1	CST4129
anti-p27	CST3686
anti-N-cadherin	CST13116
anti-p21	CST2947
anti-Caspase-3	CST9662
anti-PARP	CST9532
anti- β -actin	CST3700
anti-E-cadherin	abcam40772
anti-p-c-myc(Thr58)	abcam28822
anti-Vimentin	abcam92547
anti-TFAP4	Santa Cruz sc-18593
anti-LAPTM4B	ABGENT AP20870a

Table S7. Relationship between AP4 expression and clinicopathological features of HCC

Variables	Patients	AP4 expression		P ^a
		Low	High	
All cases	117			
Gender				0.659
Male	90	39	51	
Female	27	10	17	
Age				0.704
<50	49	22	27	
≥50	68	27	41	
Cirrhosis				0.091
Yes	64	22	42	
No	53	27	26	
Viral status				0.064
Yes	83	30	53	
No	34	19	15	
Tumor size				0.039
<5cm	51	27	24	
≥5cm	66	22	44	
Vessel carcinoma embolus				0.003
Yes	58	16	42	
No	59	33	26	
Histopathological differentiation				0
WD	24	19	5	
MD	61	23	38	
PD	32	7	25	
TNM stage				0.001
I-II	43	22	16	
III-IV	74	22	52	
Serum AFP level				0.703
<7ng/ml	47	21	26	
≥7ng/ml	70	28	42	
Recurrence				0.27
Yes	27	14	13	
No	90	35	55	

a. Chi-square test

Table S8. Relationship between LAPTM4B-35 expression and clinicopathological features of HCC

Variables	Patients	LAPTM4B expression		P ^a
		Low	High	
All cases	117			
Gender				0.189
Male	90	40	50	
Female	27	8	19	
Age				1
<50	49	20	29	
≥50	68	28	40	
Cirrhosis				0.008
Yes	64	19	45	
No	53	29	24	
Viral status				0.041
Yes	83	29	54	
No	34	19	15	
Tumor size				0.009
<5cm	51	28	23	
≥5cm	66	20	46	
Vessel carcinoma embolus				0
Yes	58	14	44	
No	59	34	25	
Histopathological differentiation				0
WD	24	18	6	
MD	61	22	39	
PD	32	8	24	
TNM stage				0
I-II	43	30	13	
III-IV	74	18	56	
Serum AFP level				1
<7ng/ml	47	19	28	
≥7ng/ml	70	29	41	
Recurrence				0.824
Yes	27	12	15	
No	90	36	54	

a. Chi-square test