

	YY1					Motif B					
#L1PA1	GGGGGGAGGA	GCCAAGATGG	CCGAATAGGA	ACAGCTCCGG	TCTACAGTCT	CCAGCGTGAG	CGACGCAGAA	G-ACGG-TGA	[	80]	
#L1PA2	.....	.....	.....	.....	.....	.....	.....	.....G...	[	80]	
#L1PA3	.....	.....	.....	.....	.....	.....	.....	.....G...	[	80]	
#L1PA4	.....	.....	.....	.....	.....	.....	.....	.....G...	[	80]	
#L1PA5	.....	.....	.....	.....	.....	.....	.....	.....G...	[	80]	
#L1PA6	-----	.....	.....	.....	.....G.....	T.....	.....	.....G...	[	80]	
#L1PA7	---.TG.CT	.....	.....	.....	.....G.....	A..T..	.....	.....G...	[	80]	
#L1PA8	---TG.CT	.....	.....	.....	.....G.....	A..C..	.....	.....G...	[	80]	
#L1PA8A	--...T..G	.....	.....C...A..	G...TGTT..	..GGAG....	...T...AA..	GA..CATA..	AAG.ATG...	[	80]	
#L1PA10	---...G...	.....	.....A.C...A..	GTC...	..GGAG....	...C...A..	GA.T.A.A.C	A-G.AAG...	[	80]	
#L1PA11	---AG...G	.....	.....T...A..	G...G.A...	..G...A...	T...CA.A...	GA.T.A.A.G	-G.AAG...	[	80]	
#L1PA13B	---...TG	.....	.....C...A..	G...AG...	..G.GTG....	T...TG.A...	GA.T.A.A.G	-G.AAG.A.	[	80]	
#L1PA14	---...TG	.....	.....C...A..	G...AGT...	..G.GTG....	T...CG.A...	GA..AG.AGG	-GT.AG.A.	[	80]	

	Motif B (cont.)		RUNX3							
#L1PA1	TTTCTGCATT	TCCATCTGAG	GTATCCGGTT	CATCTCACTA	GGGAGTGCCA	GACAGTGGGC	GCAGGCCAGT	GTGTGT-GCG	[	160]
#L1PA2	.....	.....	.....	.....	.....	.....	.....T....	G...C...	[	160]
#L1PA3	.....	.....	.....	.....	.....	.....	.....A....	G...CA...	[	160]
#L1PA4	.....	.....	.....	.....	.....G.....	.....	.....T....	A...CA...	[	160]
#L1PA5	.....	.....	.....	.....	.....G.....	CT...T..	.....	.....A...CA...C	[	160]
#L1PA6	.....	.....	.....T....	TG...	..ACTG.TTG	.....	.....T....	-G...	[	160]
#L1PA7	.....	.....	.....C....	TG...	..ACTG.TT.	.....	.....T....	-G...	[	160]
#L1PA8	.....	.....	.....CA...	TG...	..ACTG.TT.	G.....	T....	A-----C	[	160]
#L1PA8A	A.C...T..CC	GG..A.CA..	...T.CA.G.	TC...TC.	AAATTGA.T.	..AG.CT...	..TGA-----	-----C	[	160]
#L1PA10	A.C...CC	GG..A.CA..	...T.CA.G.	TC...TG...	..ACTGA.T.	..G.G...T...	..GA-----	-----C	[	160]
#L1PA11	A...A...CC	.T..A...A..	...T.CA.G.	TC...A..TG	..ACTGA.T.	..G..AACAA.	T..A-----	-----C	[	160]
#L1PA13B	A.A.A...CC	.T..A...A..	AC..T.CA.G.	AC...A..TG	..ACTAAT..	AGG.AACAA.	TT.A-----	-----C	[	160]
#L1PA14	A.A.AA...CC	.T..A...A..	AC..T.CA.G.	AC...G..TG	..ACTAAT..	AGG.AACAA.	TTGA-----	-----C	[	160]

	Motif C										
#L1PA1	CACCGTGC	GAGCCGAAGC	AGGGCGAGGC	ATTGCCTCAC	CTGGGAAGCG	CAAGGGGTCA	GGGAGT-TCC	CTTCCGAGT	[	240]	
#L1PA2	.....	.....	.....	.....	.....	.....	.....	.....	[	240]	
#L1PA3	.....	.....	.....	.....	.....	.....	.....	.....T...	[	240]	
#L1PA4	T	.....	.....	.....	.....C.....	.....	.....A..	T...	[	240]	
#L1PA5	...A...T	...A...	.....	.....	.....C.....	.....	.....A..	T..C	[	240]	
#L1PA6	...G.A.G.T	.....	.....G...	C.....	.....	.....G...	T..	T..C	[	240]	
#L1PA7	...G.A.G..	...A...	...T.G...	G.C.....	C.....	A...	TG...	AC-..	[	240]	
#L1PA8	...A.A.G..	A...A...	...T.G...	G.C...T...	CA...T..	A..CTG	GACC..	CC.C.C.C	[	240]	
#L1PA8A	...G.A.A-	A...GAAG...	...T.T.GT...	GG..G.C...	A..GC.A	C...AAG	CCC..	TCCC.C.C.C	[	240]	
#L1PA10	...G.A.A..	...GAA...	G...T.GT.T	GAC.G.C...	GC.A	C...CA.	GAGC..	ACC.C.C.C	[	240]	
#L1PA11	...TG.A.AAT	...AGAA...	...T.G...	GA..G.C...	CA...CGC	CA.A.C..	A...GAACC..	ACC.C.C.C	[	240]	
#L1PA13B	...A.A.AAT	...GAGAA...	...AG.A...	GACAG.C...	GTAA	C.A.C..	A...GAACCT..	CT.C	[	240]	
#L1PA14	...A.A.AAT	...AGAA...	...AG.AT	ACAG.C...	GCAA	C.A.C..	A...GAACCT..	CTAC	[	240]	

#L1PA1	CAAAGAAAGG	GGTGACGGAC	G-CACCTGGA	AAATCGGGTC	ACTCCAC-C	CGAATATTGC	GCTTTTCAGA	CCGGCTTA-A	[	320]
#L1PA2	.....	.....	.....	.....	.....	.....	.....C..	G.....	[	320]
#L1PA3	.....	.....A...	.....	.....	.....	.....	.....C..	G.....	[	320]
#L1PA4	.....	.....A...	.....	.....	.....	.....	.....C..	G.....	[	320]
#L1PA5	...G.G...C	A...	.....	.....	.....	.....	.....C..	TG.T...-G	[	320]
#L1PA6	...G.G...C	C...A...	TGT.....	...A...A..	G..	A...	C..	TG.T...-G	[	320]
#L1PA7	...G.G...C	CA...G...	TGTG..AT..	GG.AT..TG.	GG..	..AG...C.A.	CC.	G.T...C-	[	320]
#L1PA8	...G.G...C	A...G...	T-----	-----T.CT	GG..	..G...C.A.	CC.	G.TT..T-G	[	320]
#L1PA8A	...G.G.G.C	GT..G	C-----	-----T.CT	C.AGC..G	G.G.A.CC.T	TCC.	G.AAC.GTG	[	320]
#L1PA10	...G.G.G.C	A...GT..T	C-----	-----T.CT	C.TGC..T	A.G.A.CCA.	A...TCC.	G.ATC.GTG	[	320]
#L1PA11	...G.G.G.C	GT..T	T-----	-----T.CG	C.TGC..T	G.G.A.CCA.	C..CC.	TG.ATC.TTG	[	320]
#L1PA13B	...C.G...C	A...GT..A	T-----	-----T.CA	C..A-	..G.A.CCA.	C..CC.	TG.ATC.TTG	[	320]
#L1PA14	...C.G...T	A...GT..A	T-----	-----A..G	C..G---	..G.A.CCAT	C..CC.	A.ATC.TTG	[	320]

#L1PA1	GAAACGGCGC	ACCACGAGAC	T-----	-----	-----	-----	-----	-----	[	400]
#L1PA2	A.....	T	.....	-----	-----	-----	-----	-----	[	400]
#L1PA3	A.....A.	G..T	.....	-----	-----	-----	-----	-----	[	400]
#L1PA4	C.....A.	G...T	.....	-----	-----	-----	-----	-----	[	400]
#L1PA5	C.....A.	G...T	.....	-----	-----	-----	-----	-----	[	400]
#L1PA6	C.....AG	G...T	.....	-----	-----	-----	-----	-----	[	400]
#L1PA7	C..C.C..AG	G...T	.CCCTCGGGT	GCCTACACCA	CCAGGGCCCT	GGGTTTCAAG	CACAAAAGT	GGGGGCCATT	[	400]
#L1PA8	C..T.C..AG	T..G...T	.CCCTTGTGT	GCCTACACCA	CCAGGGCCCT	GGGTTTCAAG	CACAAAAGT	GGCAGCTGTT	[	400]
#L1PA8A	C..C.CAT.G	T..GGA...T	CCCACTCGTG	AACCCATGCC	ACCAGGGCCT	AGGGTCCCAA	CCCCAGAAC-	-----	[	400]
#L1PA10	C..C.CA..G	T..G...T	CCCCTCGTG	AGCCACGCG	ACCAGGGCCT	TGGGTCCCAA	GCACAGAGCT	-----	[	400]
#L1PA11	C..C.CAT.G	T..G...T	CCC-CTCGTG	AGCCCATACC	ACCAGGGCCT	TGGGTCCGAT	ACACAGAGCT	GTGTGGAGTC	[	400]
#L1PA13B	C..C.CT..G	GT..G...T	CCC-CTCGTG	AACCCACTCC	ACCAGGGCCT	TCAGTCTGAC	ACACAGAGCT	ACGTGGAGTC	[	400]
#L1PA14	C..C.CT.AG	GT..G...T	CCC-CTTGTG	AACCCACTCC	ACCAGGGCCT	TCAGTCTGAC	ACACAGAGCT	ATGTGGAGTC	[	400]

#L1PA1	-----	-----	-----	-----	-----ATATC	CC-----	---ACACCTG	G-----	[	480]
#L1PA2	-----	-----	-----	-----	-----	.....	---G.....	-----	[	480]
#L1PA3	-----	-----	-----	-----	-----	.....	---G.....	-----	[	480]
#L1PA4	-----	-----	-----	-----	-----	.....	---G.....	-----	[	480]
#L1PA5	-----	-----	-----	-----	-----	.....	---G.G....	-----	[	480]
#L1PA6	-----	-----	-----	-----	-----	.....	---GTG....	-----	[	480]
#L1PA7	TGGGCAGACA	CCGAGCTAGC	TGCAGGAGTT	TTTTTT----	--TTC...C.	..A---G--	--TGG.G....	-----	[	480]
#L1PA8	TGGGCAGACA	CCGAGCTAGC	TGCAGGAGTT	TTTTTT----	---C...C.	..A---G--	--TGG....	-----	[	480]
#L1PA8A	-GCGCAGATT	CTTA-CAGCC	TCTCAGCTGG	AATCTG----	--CTT.AGC.	TAC---C--	-GA..T..C.	-----	[	480]
#L1PA10	-GTGCAGATT	CTCAGCAGCC	ACTC-GCTGG	AGACTG----	--CCT.AGA.	TAC---C--	-GAGTT....	-----	[	480]
#L1PA11	TCGGCAGAGC	AGCTGCTCAG	GCACACACAG	AGACCCAGGA	GTTTT.C..A	T-----	CGGC.C.GG.	-----	[	480]
#L1PA13B	TTGGCAGAGC	AGCCACTCAG	GCATGCGTGG	AGACCTAGGA	GCTTT.C..A	.TCCGGCTCT	GGGCTT....	.CAAAAGTAA	[	480]
#L1PA14	TCGGCAGAGC	AGCTGCTCAG	GCATGTGTGG	AGACCTTGGG	GCCTT.G..A	T-----	TGGGCTT....	.CAAAAGTAG	[	480]

```
#L1PA1 ----- [ 560]
#L1PA2 ----- [ 560]
#L1PA3 ----- [ 560]
#L1PA4 ----- [ 560]
#L1PA5 ----- [ 560]
#L1PA6 ----- [ 560]
#L1PA7 --A----- ATGCCAGCGA GACAGAA--- --CCGTTTCAC TCCCCTGGAA AGGGGGCTGA AGCCAGGGAG CCAAGTGGTC [ 560]
#L1PA8 --A----- ACCCAGCGCA GACAGAA--- --CCTTTCAC TCCCCTGGAA AGGGGGCTGA AGCCAGGGAG CCAAGTGGTC [ 560]
#L1PA8A --G----- GGGAGGGGCG ACCAGCA--- --CCAG--- TCA----- [ 560]
#L1PA10 --G----- GGGAGGGGTG GCCATCA--- --TCA----- [ 560]
#L1PA11 ----ATTCCC AGCAAGGCAG GAGATC---C ATCCATACAT ACCCCTAGGA AGGGGGCTGA ATCCAGGGAG CCAAGCAGCA [ 560]
#L1PA13B CTGCAACTCC GCCAAAGTGG GAGGTTAGAC CCCCATACAT ACCCCTAGGA AAGAGGCTGA ATCCAGGGGG CTAAGCAGCA [ 560]
#L1PA14 CTGCAACTCC AGCAAAGTGG GAGGTTAGAC TCCTGTACAT ACCCCTAGGA AAGAGGCTGA ATCCAGGGGG CTGAGCAGCA [ 560]
```

– Start ASP region

```
#L1PA1 ---CTCGGAG GGTCTACGCG CCACGGAATC TCGC----- -TGAT-TGCT AGCA-CAGCA [ 640]
#L1PA2 ---..... .G.. [ 640]
#L1PA3 ---..... .G.. [ 640]
#L1PA4 ---..... .GC. [ 640]
#L1PA5 ---..... .GC. [ 640]
#L1PA6 ---.....C.....T...GC..T. [ 640]
#L1PA7 TAG...A.T..A...C..C..GC..CA..AAGCTA AGATCCACTG GCTTGAAATT C.CGC-...C [ 640]
#L1PA8 TCG...A.CA....C...T.....GC..CA..AAGCTA AGAACCCTG GCTTGAAATT C.C.C-...C [ 640]
#L1PA8A ---.GCAGC T.C.TGCT.T.T.A.CC..T..GAGCTCCTT GG----- -G--GGAGAG GCAGC-A..C [ 640]
#L1PA10 ---...C.GC T.C.T.TC.T..T.A.A.GA..GAGCTCCCT GG----- -G--GGAGGG GA.GC-A..C [ 640]
#L1PA11 TCAT..T.T..C..C..TT.....C.C..A.AAGTTA AGACCCACTG GCTTGGAATT CCAGCCA..C [ 640]
#L1PA13B ATGG..T.CA..C..C..TT.....T..C.C..A.AGGATA AGACCCACTG GCTTGGAATT CCAGCCA..C [ 640]
#L1PA14 ACAG..T.CA..C..C..TT.....C.C..A.AGGATA AGACCCACTG GCTTGGAATT CCAGCCA..C [ 640]
```

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#L1PA1 GTCTGAGATC AAAGTCA-A GGCAGCAACG AGGCTGGGGG AGGGGC--GC -CCGCCATTG CCCAGGCTTG CTTAGG---- [ 720]
#L1PA2 ..... [ 720]
#L1PA3 ..... [ 720]
#L1PA4 .....AG.... [ 720]
#L1PA5 .....TG.....AG.... [ 720]
#L1PA6 .....TG.....AG.... [ 720]
#L1PA7 .....AG..G.C...GG-..C..TCG.G.T T..TG....-..T -..A...A.TG.....AG...CGGT [ 720]
#L1PA8 .....AG..G.C...GG-..T.ATTG.G.T T..TG....-..T -..A...A.TG.....AG...CGGT [ 720]
#L1PA8A ACTCACAC.TC CTAA..TC.C T..G....A...-..G -..AC...CT..TATA...CC AGGCT.TG-- [ 720]
#L1PA10 .....GCT..AGT.TGCC A----- [ 720]
#L1PA11 ..G...GAGA..TGC...AGAC..ACTG.GTT CC-.G....-..AG -..T....CT..TGCA.T.C..G.GGACTCAG [ 720]
#L1PA13B ..G.T.C.C..T.C...GGAT..A---GTT CC-TA....-..AG G.T....CT TTGCT.T...GGC.ACTCAG [ 720]
#L1PA14 .CA.TGC.C..TCC...AGA..A---G.T CC-.A....-..G G.....CT TTGCT.T...GG..CCTTAG [ 720]
```

SRY

```
#L1PA1 -----TAA CAAAGCAGCC GGAAGCTCG AACT-GGGTG GAGCCACCA CAGCTCAAGG AGGCCT---- [ 800]
#L1PA2 ----- [ 800]
#L1PA3 ----- [ 800]
#L1PA4 ----- [ 800]
#L1PA5 ----- [ 800]
#L1PA6 -----TG...A.....G.....GCA [ 800]
#L1PA7 TTTCCCCCTC ACAGTG...C.....T...C.....G.....GCA A...GCTGT [ 800]
#L1PA8 TTTCCCCCTC --GACAGTGC T..G.AG..T...G.T...G...C...ATT.....GTGGCA A..GGCTGT [ 800]
#L1PA8A --CTTTTCCC CTGCTGG..GC..GG.AG..T..ATG...T..GT.CCAA.AC TT.T-..C...C...CAC.GGCTGT [ 800]
#L1PA10 --CTTTTCTC CTGCGGTGC..GG.AGA.T..ACG.T.T..G..CC...A..ATT.C...A..GCA CA..GGCTGT [ 800]
#L1PA11 CCATTCCAGC CTGCTGGCTC TGG..AGT..A.ATG.TC.A G..AA..AG. AGT-.C...A.A.G..GCA CA..TGCTTT [ 800]
#L1PA13B CCATTCCAGC CTGTGGGCTT TGG..AGT..AA.CCAACTA GGGGCT.AA..GAT-.C...A.A.GCA CA..TGCTCT [ 800]
#L1PA14 CCATTCCAGC CTTCAGGCTT TGG..AGT.T..A.CT.AC.A GGGGC..AA..GAT-.C...A.A.GCA CA..TGCTCT [ 800]
```

SRY

```
#L1PA1 -----GCC---TG CCTCTGTAGG C-----TCC ACCTCTGGGG GCAGGGCACA GACAAACAAA [ 880]
#L1PA2 ----- [ 880]
#L1PA3 ----- [ 880]
#L1PA4 ----- [ 880]
#L1PA5 ----- [ 880]
#L1PA6 ----- [ 880]
#L1PA7 A-----AGAC...C..A T-----T...CT...TC TCTG..AG.. [ 880]
#L1PA8 G-----AGAC...T...C...A T-----T...ACT...TC TCTG..GG.. [ 880]
#L1PA8A GGCAGTCTGC G...AGAG...TC...CTAACCCCTG ACCC-ATC.T T...A.T...G...TTC CCTGC.GG.. [ 880]
#L1PA10 GGCAGATCGT G...AGAC...T...GGGACCCCTG ACCC-ATC..T...ACT...G...CTC CCTGC.GG.. [ 880]
#L1PA11 GCCAGATCGT G...AGAC...T...T.A..TGGGACCCCA ATCC-AT..T...ACT...G...CTC CTTGT-GGGG [ 880]
#L1PA13B ACCAAAATGT G...AGAC...T...T.A..AGGTCCCTG ATCC-GT...T...ACT...A.CTC CCAGCCGGGG [ 880]
#L1PA14 ACGAAAACGT G...AGAC...T.T.T..A..AGGTCCCGG ATCCCGT...T...ACT...T...A.CTC CCA.CCGGGG [ 880]
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```
#L1PA1 AAGACAGCAG T----- [ 960]
#L1PA2 ..... [ 960]
#L1PA3 ..... [ 960]
#L1PA4 ..... [ 960]
#L1PA5 ..G.....A----- [ 960]
#L1PA6 -.G.....A----- [ 960]
#L1PA7 -.G.....CCCCAGTCAG GGGCTTATAG ----ATAAA ACTCCCATCT CCCTGGGACA GAGCACCTGG GGGAAAGGGG [ 960]
#L1PA8 -.TG..A...CCCCAGTCAG GGGCTTATAG ----ATAAA ACTCTCATCT CCCTGGGACA GAGCACCTGG GGGAAAGGGG [ 960]
#L1PA8A C-TC..AT.A CTCCAGCCAG AGGCTCAGGG ----ACAGA ACTCGGATCT CCCTGGGCCT GAGCCCCTAG GGGGAGGGGT [ 960]
#L1PA10 T-TT....A CTCCAGCCAG GGGTTTAGGG ----ACAGA ACTCTGATCT CCCTGGGACT GAGCCCCTGG GGGGAGGGGT [ 960]
#L1PA11 .CTT....A CTCCAGCCAG GGTTCATGG ----ACAGA TCTGATCTCT CCCTGGGACA GAGCTCCTAG GGGGAGGGG [ 960]
#L1PA13B CCTC...CA CCCCTACCAG TGTTCCTCTG CTAACAGAGA TTTGAAAACCT CCCTGGGACA GAGCTCCAG AGGGAGGGG [ 960]
#L1PA14 CCTC...CA CCCCACCGG TGTTCCTCGG CCAACAGAGG TTTGAAAACCT CCCTGGGATA GAGCTCCAG AGGGAGGGGT [ 960]
```

				End ASP region						
#L1PA1	-----	---AACC--T	CTGCAGACTT	AAGTGTCCCT	GTCTGACAGC	TTTGAAGAGA	GCAGT-----	-----		[1040]
#L1PA2	-----	-----	-----	..A.....	-----	-----	-----	-----		[1040]
#L1PA3	-----	-----	-----	..A.....	-----	-----	-----	-----		[1040]
#L1PA4	-----	-----	-----	..A.....	-----	-----	..T.....	-----		[1040]
#L1PA5	-----	-----	-----	..A.....	-----	-----	..T.....	-----		[1040]
#L1PA6	-----	---.T--	-----	..AC.....	-----	..C.....	-----	-----		[1040]
#L1PA7	GG-CTGTGGG	CGC.G.T--	..A.....	..AC..T...	..C...C.G..	..C.....	C-----	-----		[1040]
#L1PA8	GG-CTGTGGG	CGC.G.T--	..A.TG.....	..TCT.T...	..C...C.G..	..C.....	CTGATC	CTGACAAGAG		[1040]
#L1PA8A	GG-CTGCAGT	CTCTG.GGAC	..A.....	..GCCT.T...	..C...GT..T	..C...G..AT	..C...GCAGCC	CAGATGAGTG		[1040]
#L1PA10	GG-CCGTGGT	CTCCG.GGA.	..A.....	..GTCT.T..C	..C...CTG..	..C...G..AT	..C.G.GCAGTC	CGGACAAGTG		[1040]
#L1PA11	AG-CCACCAT	CTCTG.GGT.	..A.TC....C	..GCCA.T..A	..C...CTG..	..C...G...T	..C...GCGGTC	TAGATGAGGA		[1040]
#L1PA13B	GGGCCACCAT	CTTTG.TGT.	TC.GT....C	..GCCA.T..A	..C..CCAG..	G....	..C..AGCCAAC	TAGGGGCGGA		[1040]
#L1PA14	AGGCCACCAT	CTTTG.TGT.	TG.GC....	..GCCA.T..A	..C..TTGG..	G...T	CTGAGGCAAC	CGGGGGCTGA		[1040]
#L1PA1	-GGTTCTCCC	-AGCACGCAG	CTGGAGATCT	GAGAACGGG-	-CA---GAC	TGCCTCCTCA	AGTGGGTCCC	TGACTCCTGA		[1120]
#L1PA2	-----	-----	-----	-----	-----	-----	-----	C....		[1120]
#L1PA3	-----	-----	-----	-----	-----	-----	-----	C....		[1120]
#L1PA4	-----	-----	-----	-----	-----	-----	-----	C..C..		[1120]
#L1PA5	-----	-----	..G..T.T	-----	..A-----	-----	-----	C..C..		[1120]
#L1PA6	-----	-----	..GT..T.T..C..	-----	..A-----	-----	-----	C..C.T		[1120]
#L1PA7	-----	-----	..AGC..C...C...	..CT..G..A-	-----	-----	-----	C..C.T		[1120]
#L1PA8	G.A.....	-----	..AGC..ACC..C...	..CT..G..A-	-----	-----	-----	C..C.T		[1120]
#L1PA8A	G.T...C...	..C...GAAGCA	..ACCC...C	ACC..G..A-	..A---G	..T..G..T.	..AC.....T	GTT-..CAT		[1120]
#L1PA10	G.A...C...	..C...G.AGCA	..ACCC...C	..CC..G...-	..GCCA..G	..T..A..T.	-----	G..T-...T		[1120]
#L1PA11	A..G-----	..C.A...AGCA	..ACCT.C...	ACC..AAA-	..GCCA...	..T..T..T.	-----	..T-..CAT		[1120]
#L1PA13B	A.TAGTC...	..C...AGC..	..A.CT.C...	..A...AACA-	..TGGCCA...	..T..T...	..CA.....	..T-..C..T		[1120]
#L1PA14	A.TGGAC...	..C...AGCA	..A.CT.C...	AT...AAT-	..TGGCCA...	..T..TT.T.	..A.....	..T-..CAT		[1120]
#L1PA1	CCCCCGA-GC	AGCCTAACTG	GGAGGCACCC	CCCAGCAGGG	GCACACTGAC	ACCTCACACG	GCAGGGTATT	CC-----		[1200]
#L1PA2	-----	-----	-----	-----	-----	-----	-----	-----		[1200]
#L1PA3	-----	-----	-----	T....	G.....	-----	..C....C..	..TCTGA--		[1200]
#L1PA4	...-A.-.T	-----	-----	T....	G.....	-----	..C....C..	..TCTGA--		[1200]
#L1PA5	-----T	-----	-----	T....	G.....	-----	..C....CC	..TCTGA--		[1200]
#L1PA6	-----T	-----	A...T	T....	..CA.....	T..A	..GT...GCC	..TCTGG--		[1200]
#L1PA7	-----..	CT...G...	A...T	-----	..TCG..A...	T..A	..G..A..CTCC	AGCTGGCATC		[1200]
#L1PA8	-----..	CT...G...	AG..T	A....	..TTG..A...	T..A	..G..A..CTCC	GGCTGGCATC		[1200]
#L1PA8A	-----..	CA..C....	..T.AG...	..T.A....	..TTGT.A...	..CT.T..A	..G..C..ATCC	TACTGGCATC		[1200]
#L1PA10	-----..	CT...G...	..T.AG...	..A....	..TCGC.A...	T.T..A	..G..CA..TCC	TGCTGGCATC		[1200]
#L1PA11	-----T.	CT...G...	..T.AG..T	A....	..TCTC.A.C.	CT..A	..G..C..TCG	GGCTGGCAAC		[1200]
#L1PA13B	-----T.	CT...G...	..CAAG...T	A.CA..	..TCTC.A.C.	CT..A	..GT.C..TC	GGCCAGCAAC		[1200]
#L1PA14	-----T.	CT...C....	..TA.G...T	A.T...	..TCTC.A.C.	CT..A	..GT.CC.T.G	GGCCAGCAAC		[1200]
#L1PA1	-----	-----	-----	-----	-----	-----	-----	-----		[1280]
#L1PA2	-----	-----	-----	-----	-----	-----	-----	-----		[1280]
#L1PA3	-GACAAAACT	TCCAGAGGAA	CGA-TCAGAC	AGCAGCATTC	GCGGTTTCACC	AAAATCCGCT	GTTCTGCAGC	CACCGTGTCT		[1280]
#L1PA4	-GACAAAACT	TCCAGAGGAA	CGA-TCAGGC	AGCAGCATTT	GCGGTTTCACC	AATATCCGCT	GTTCTGCAGC	CACCGTGTCT		[1280]
#L1PA5	-GACGAAACT	TCCAGAGGAA	CGA-TCAGGC	AGCAACATTT	GCGGTTTCACC	AATATTCGCT	GTTCTGCAGC	CTCCGTGTCT		[1280]
#L1PA6	-GACGAAGCT	TCCAGAGGAA	GGA-TCAGGC	AGCA-TG---	-----C	AATATTTGCT	GTTCTGCAGC	CTCTGTGTGT		[1280]
#L1PA7	TGGCGGGTGC	CCCTCTGGGA	CAA-AGCTTC	CAGAGGAAGG	AACAGGCAGC	AATCTTTGCT	GTTCTGCAGC	CTCCGTGTGT		[1280]
#L1PA8	AGGCCAGTGC	CCCTCTGGGA	TGA-AGCTTC	CAGAGGAAGG	AGCAGGCAGC	AATCTTTGCT	GTTCTGCAGC	CTCCACTGGT		[1280]
#L1PA8A	AGGTTGGTGC	CCCTTGAGGT	CAG-AGGTCC	CAGAAGAAGG	AGCAGGCACC	CATCTTTGCT	GTTCTCCAGC	CTCCTTGAGT		[1280]
#L1PA10	AGGTCGGTGC	CCCTCTGGGA	CAG-AGATCC	CAGAGGAAGG	AGCAGGCAGC	CATCTTTGCT	GTTCTGCAGC	CTCCACTGGT		[1280]
#L1PA11	AGGTCAGTAC	CCCCCTGGGA	CGG-AGCTTC	CAGAGGAAGG	AGCAGGCTGC	CATCTTTGCT	GTTTTACAGC	CTTCACTGGT		[1280]
#L1PA13B	AGGTCATATAC	CTCCCTGGGA	TGG-AGCTCC	CAGAGGAAGG	GGCAGGCTGC	CATCTTTGCT	GTTTTGCAGC	CTTCACTGGT		[1280]
#L1PA14	AGGTCCATAC	CTCCCTGGGA	CAA-AGCTCC	CAGAGGAGG	GACAGGCTGC	CATCTTTGCT	GTTTTGCAGC	CTTCACTGGT		[1280]
#L1PA1	-----	-----	-----	-----	-----	-----	----AACAGA	CCTGCAGCTG		[1360]
#L1PA2	-----	-----	-----	-----	-----	-----	-----	-----		[1360]
#L1PA3	GATACC----	-----	-----CAGGC	AAACAGGGTC	TGGAGTGGAC	CTCTAGCAAA	CTCC.....	-----		[1360]
#L1PA4	GATACC----	-----	-----CAGGC	AAACAGGGTC	TGGAGTGGAC	CTCCAGCAAA	CTCC.....	-----		[1360]
#L1PA5	GATACC----	-----	-----CAGGC	AAACAGGGTC	TGGAGTGGAC	CTCCAGCAAA	CTCC.....	-----		[1360]
#L1PA6	GATACC----	-----	-----CAGGC	AAACAGGGTC	TGGAGTGGAC	CTCCAGCAAA	CTCC.....	-----		[1360]
#L1PA7	GATACC----	-----	-----CAGGC	AAACAGGGTC	TGGAGTGGAC	CTCCAGCAAA	CTCC.G...	-----A.		[1360]
#L1PA8	GATACC----	-----	-----CAGGT	GAACAGGGTC	TGGAGTGGAC	CTCCAGCAAA	CTGC.G...	-----AA.		[1360]
#L1PA8A	GACATCTCCA	GGCACAGGAG	CAAATCAGAT	GAATAGGGCC	TGAAGTGAAC	CCCCAGCAAA	CCGC.G...C	...A...AA.		[1360]
#L1PA10	GACACCTCCA	GGTGCGGGAG	GGACCCAGGT	GAATAGGGTC	TGGAGTGGAC	CCCCAGCAAA	CCAC.G...C	...ATG.AA.		[1360]
#L1PA11	GATACCTCCA	GGTACTGGAA	AAACCAAGGC	AACTAGGGTC	TGGAGTGGAC	CCCCAGCAAA	CCAC.G...C	...A...AA.		[1360]
#L1PA13B	GATACCTCCA	GGTACTGGAA	AATCTGAGGC	GACCAGGGAC	TGGAGTGGAC	CCCCAGCAAA	CCAC.G...C	...AAG.AAA		[1360]
#L1PA14	GATACCTCCA	GGTACTGGAA	AATCCGAGGT	GACTAGGGAC	TGGAGCAGGC	CCCCAGCATA	CCAC.G...C	...A.G.AAA		[1360]
#L1PA1	AGGGTCTCTGT	CTGTTAGAAG	GAAAACT---	-----	---AACAAAC	AGA-----	-----	-----		[1440]
#L1PA2	-----	-----	-----	-----	---A.	-----	-----	-----		[1440]
#L1PA3	-----	-----	-----	-----	---A.	-----	-----	-----		[1440]
#L1PA4	-----	-----	-----	-----	---A.	-----	-----	-----		[1440]
#L1PA5	-----	-----	-----	-----	---A.	-----	-----	-----		[1440]
#L1PA6	...A...A	-----	-----	-----	---A.	-----	-----	-----		[1440]
#L1PA7	...G...A	-----	-----	-----	---A.	-----	-----	-----		[1440]
#L1PA8	...G...A	-----	-----	-----	---A.	-----	-----	-----		[1440]
#L1PA8A	...A...A	..CA..GA...	..A...A--	-----	---A.	-----	-----	-----		[1440]
#L1PA10	...G...A	...A...A	..A...A--	-----	---A.	-----	-----	-----		[1440]
#L1PA11	...T.G...A	...A...A	..A...A--	-----	---A.	-----	-----	-----		[1440]
#L1PA13B	...T.G...A	..AA..A--	-----	-----	---A.	-----	-----	-----		[1440]
#L1PA14	...T.G...A	CGT.	..GTGC..GTT	CCCATATCTC	CTC.C..GG.	..GTCCTCCA	GGCCTGGGCC	TCCAGCCACC		[1440]

#L1PA1	-----	-----AAG	GA-----	-----	-----	-----	-----	-----	[1520]
#L1PA2	-----	-----	-----	-----	-----	-----	-----	-----	[1520]
#L1PA3	-----	-----	-----	-----	-----	-----	-----	-----	[1520]
#L1PA4	-----	-----	-----	-----	-----	-----	-----	-----	[1520]
#L1PA5	-----	-----	-----	-----	-----	-----	-----	-----	[1520]
#L1PA6	-----	-----	...ATAGCATC	--AACATC--	-----	-----A	ACAAA--AA-	-----	[1520]
#L1PA7	-----	-----	...ATAGCATC	--AACATC--	-----	-----A	ACAAA--AA-	-----	[1520]
#L1PA8	-----	-----	...C.ACAACAAC	--AACATC--	-----	-----A	ACAAA--AA-	-----	[1520]
#L1PA8A	-----	-----	...C.ACAACAAC	--AGCAGC--	-----	-----A	TCAAC--AAC	A-----	[1520]
#L1PA10	-----	-----	...C.ACAACAAC	--AACAGC--	-----	-----A	TCAAC--AA-	-----	[1520]
#L1PA11	-----	---AAGA...A	C.ACAACAAC	ACAACAA--	-----	-----	-----	-----	[1520]
#L1PA13B	-----	-----	-----	-----	-----	-----	-----	-----	[1520]
#L1PA14	CCCTGCCAGA	GCTATTG.GC	C.GTAGCAAC	TCAGCAACTC	CCTGGACAGA	GCCTCCAGGG	GCAACTGAAA	GCCTCTCTGC	[1520]

#L1PA1	-----	-----	-----C	ATCT-----	--A-----C	ACCGAAAACC	CA-----	-----	[1600]
#L1PA2	-----	-----	-----	...C-----	--A-----	...A.....	-----	-----	[1600]
#L1PA3	-----	-----	-----	...C-----	-----	...A.....	-----	-----	[1600]
#L1PA4	-----	-----	-----	...C-----	-----	...A.....	-----	-----	[1600]
#L1PA5	-----	-----	-----	...C-----	-----	...A...C..	-----	-----	[1600]
#L1PA6	-----	---G--GA-	-----	...C-----	-----	...A...C..	-----	-----	[1600]
#L1PA7	-----	---G--GA-	-----	G...C-----	-----	T.A...C..	-----	-----	[1600]
#L1PA8	-----	---G--GA-	-----	CC.C-----	-----	..AA...C..	-----	-----	[1600]
#L1PA8A	-----	---ACAAAAA-	-----A	GC.C-----	--C-----	..AA...C..	-----	-----	[1600]
#L1PA10	-----	-----AAAA-	-----A	G...C-----	--C-----	..AA...C..	-----	-----	[1600]
#L1PA11	-----	-----	-----	-----	---AACC.	..AA...C..	-----	-----	[1600]
#L1PA13B	-----	-----	-----	-----	---AAAAA	..AA...C..	-----	-----	[1600]
#L1PA14	CACTGCCTCT	GCAGTGAAC	TGCCCTTGCT	.C.CTCGGAC	TA.TGAAGGA	G.AA.G.C..	T.AGTGCCTT	ATCCACACCT	[1600]

#L1PA1	-----	-----TC	TGTAC-----	-----	-----	-----	-----	-----	[1680]
#L1PA2	-----	-----	-----	-----	-----	-----	-----	-----	[1680]
#L1PA3	-----	-----	-----	-----	-----	-----	-----	-----	[1680]
#L1PA4	-----	-----	-----	-----	-----	-----	-----	-----	[1680]
#L1PA5	-----	-----	-----	-----	-----	-----	-----	-----	[1680]
#L1PA6	-----	-----	...G-----	-----	-----	-----	-----	-----	[1680]
#L1PA7	-----	-----	C.A.G-----	-----	-----	-----	-----	-----	[1680]
#L1PA8	-----	-----	CAA.G-----	-----	-----	-----	-----	-----	[1680]
#L1PA8A	-----	-----	CAAGG-----	-----	-----	-----	-----	-----	[1680]
#L1PA10	-----	-----	CAA.G-----	-----	-----	-----	-----	-----	[1680]
#L1PA11	-----	-----T	CAA.G-----	-----	-----	-----	-----	-----	[1680]
#L1PA13B	-----	-----	CAA.G-----	-----	-----	-----	-----	-----	[1680]
#L1PA14	CCAACAAGCT	GCAGTCAAC.	CAAGGAGAGG	AGGCCAGTCC	ATCTCCCATG	GGTCCACAC	ACCCCCACT	GCTTGTCACC	[1680]

#L1PA1	-----	-----	-----	-----	-----	-----	-----	-----	[1760]
#L1PA2	-----	-----	-----	-----	-----	-----	-----	-----	[1760]
#L1PA3	-----	-----	-----	-----	-----	-----	-----	-----	[1760]
#L1PA4	-----	-----	-----	-----	-----	-----	-----	-----	[1760]
#L1PA5	-----	-----	-----	-----	-----	-----	-----	-----	[1760]
#L1PA6	-----	-----	-----	-----	-----	-----	-----	-----	[1760]
#L1PA7	-----	-----	-----	-----	-----	-----	-----	-----	[1760]
#L1PA8	-----	-----	-----	-----	-----	-----	-----	-----	[1760]
#L1PA8A	-----	-----	-----	-----	-----	-----	-----	-----	[1760]
#L1PA10	-----	-----	-----	-----	-----	-----	-----	-----	[1760]
#L1PA11	-----	-----	-----	-----	-----	-----	-----	-----	[1760]
#L1PA13B	-----	-----	-----	-----	-----	-----	-----	-----	[1760]
#L1PA14	AGACAGGGAA	CCCCTGGCTT	GGGCCACAG	CACAGACCCT	CCATCCTGGG	CTGATTGCAC	TGAGCAATTG	CTGACCTGCA	[1760]

#L1PA1	-----	-----	-----	-----	-----	-----	-----	-----	[1840]
#L1PA2	-----	-----	-----	-----	-----	-----	-----	-----	[1840]
#L1PA3	-----	-----	-----	-----	-----	-----	-----	-----	[1840]
#L1PA4	-----	-----	-----	-----	-----	-----	-----	-----	[1840]
#L1PA5	-----	-----	-----	-----	-----	-----	-----	-----	[1840]
#L1PA6	-----	-----	-----	-----	-----	-----	-----	-----	[1840]
#L1PA7	-----	-----	-----	-----	-----	-----	-----	-----	[1840]
#L1PA8	-----	-----	-----	-----	-----	-----	-----	-----	[1840]
#L1PA8A	-----	-----	-----	-----	-----	-----	-----	-----	[1840]
#L1PA10	-----	-----	-----	-----	-----	-----	-----	-----	[1840]
#L1PA11	-----	-----	-----	-----	-----	-----	-----	-----	[1840]
#L1PA13B	-----	-----	-----	-----	-----	-----	-----	-----	[1840]
#L1PA14	TCTCTCTGGG	GTGGAGCCCC	CAGGAGACAA	GCAAAAGACC	CTTGGCCACA	ACCACTACTA	AGGTCCCTTC	CTCTGTCTGC	[1840]

#L1PA1	-----	-----	-----	-----	-----	-----	-----	-----	[1920]
#L1PA2	-----	-----	-----	-----	-----	-----	-----	-----	[1920]
#L1PA3	-----	-----	-----	-----	-----	-----	-----	-----	[1920]
#L1PA4	-----	-----	-----	-----	-----	-----	-----	-----	[1920]
#L1PA5	-----	-----	-----	-----	-----	-----	-----	-----	[1920]
#L1PA6	-----	-----	-----	-----	-----	-----	-----	-----	[1920]
#L1PA7	-----	-----	-----	-----	-----	-----	-----	-----	[1920]
#L1PA8	-----	-----	-----	-----	-----	-----	-----	-----	[1920]
#L1PA8A	-----	-----	-----	-----	-----	-----	-----	-----	[1920]
#L1PA10	-----	-----	-----	-----	-----	-----	-----	-----	[1920]
#L1PA11	-----	-----	-----	-----	-----	-----	-----	-----	[1920]
#L1PA13B	-----	-----	-----	-----	-----	-----	-----	-----	[1920]
#L1PA14	TCCAAGTTGG	GGAAGGAACA	TAAACACTGA	GATCGCCCCA	GAGCTGCAGT	GGGCAGCCCA	GGAGTGCCAA	GCCATGATCT	[1920]

#L1PA1	---	ATCACCA	-----	-----	-----	-----	-----	-----	[2000]
#L1PA2	---	.....	-----	-----	-----	-----	-----	-----	[2000]
#L1PA3	---	.....	-----	-----	-----	-----	-----	-----	[2000]
#L1PA4	---	G.....	-----	-----	-----	-----	-----	-----	[2000]
#L1PA5	---	G.....	-----	-----	-----	-----	-----	-----	[2000]
#L1PA6	---	G.....	-----	-----	-----	-----	-----	-----	[2000]
#L1PA7	---	G.....	-----	-----	-----	-----	-----	-----	[2000]
#L1PA8	---	G...T..	-----	-----	-----	-----	-----	-----	[2000]
#L1PA8A	---	G...G..	-----	-----	-----	-----	-----	-----	[2000]
#L1PA10	---	G...G..	-----	-----	-----	-----	-----	-----	[2000]
#L1PA11	---	G...G..	-----	-----	-----	-----	-----	-----	[2000]
#L1PA13B	---	G...G..	-----	-----	-----	-----	-----	-----	[2000]
#L1PA14	ACAGC..G..	CTCAAGGGGG	AGAGGAACCC	ACACTTTTCAG	AGCATTGAGA	GGGAACATGG	CTGCAACTGT	GAGGAAACAT	[2000]

#L1PA1	-----	-----	-----	-----	-----	-----	-----	TCATCAAAG-	[2080]
#L1PA2	-----	-----	-----	-----	-----	-----	-----	-	[2080]
#L1PA3	-----	-----	-----	-----	-----	-----	-----	-	[2080]
#L1PA4	-----	-----	-----	-----	-----	-----	-----	-	[2080]
#L1PA5	-----	-----	-----	-----	-----	-----	-----	-	[2080]
#L1PA6	-----	-----	-----	-----	-----	-----	-----	A.....-	[2080]
#L1PA7	-----	-----	-----	-----	-----	-----	-----	A.....-	[2080]
#L1PA8	-----	-----	-----	-----	-----	-----	-----	G.C.....-	[2080]
#L1PA8A	-----	-----	-----	-----	-----	-----	-----	G.C.....-	[2080]
#L1PA10	-----	-----	-----	-----	-----	-----	-----	G.C.....-	[2080]
#L1PA11	-----	-----	-----	-----	-----	-----	-----	A.C.....-	[2080]
#L1PA13B	-----	-----	-----	-----	-----	-----	-----	A.C.....-	[2080]
#L1PA14	AGGGGAGCCA	CACAACTGAG	CAAGAGTCTA	CCAACTGACC	AATAAGCCTA	AGTGCCACCT	ACTGGATCAC	A.CC.....C	[2080]

#L1PA1	-----	-----	-----	-----	-----	-----	-----	-----	[2160]
#L1PA2	-----	-----	-----	-----	-----	-----	-----	-----	[2160]
#L1PA3	-----	-----	-----	-----	-----	-----	-----	-----	[2160]
#L1PA4	-----	-----	-----	-----	-----	-----	-----	-----	[2160]
#L1PA5	-----	-----	-----	-----	-----	-----	-----	-----	[2160]
#L1PA6	-----	-----	-----	-----	-----	-----	-----	-----	[2160]
#L1PA7	-----	-----	-----	-----	-----	-----	-----	-----	[2160]
#L1PA8	-----	-----	-----	-----	-----	-----	-----	-----	[2160]
#L1PA8A	-----	-----	-----	-----	-----	-----	-----	-----	[2160]
#L1PA10	-----	-----	-----	-----	-----	-----	-----	-----	[2160]
#L1PA11	-----	-----	-----	-----	-----	-----	-----	-----	[2160]
#L1PA13B	-----	-----	-----	-----	-----	-----	-----	-----	[2160]
#L1PA14	TTCAACACCA	AAAATACCTC	ACTAACATAC	CCCCCTCTGA	AACCAGAGAC	AAGAAGTCAG	CTTCAAATAA	AGACCCTGCA	[2160]

#L1PA1	-----	-----	-----	-----	-----	-----	-----	-----ACCA	AAAGTAGATA	[2240]
#L1PA2	-----	-----	-----	-----	-----	-----	-----	....	.....	[2240]
#L1PA3	-----	-----	-----	-----	-----	-----	-----	....	.....	[2240]
#L1PA4	-----	-----	-----	-----	-----	-----	-----	....	..G.....	[2240]
#L1PA5	-----	-----	-----	-----	-----	-----	-----	....	..G.....	[2240]
#L1PA6	-----	-----	-----	-----	-----	-----	-----	....	..G.....	[2240]
#L1PA7	-----	-----	-----	-----	-----	-----	-----	....	..G.....	[2240]
#L1PA8	-----	-----	-----	-----	-----	-----	-----	....	..G.....	[2240]
#L1PA8A	-----	-----	-----	-----	-----	-----	-----	....	..G.....	[2240]
#L1PA10	-----	-----	-----	-----	-----	-----	-----	....	..G.....	[2240]
#L1PA11	-----	-----	-----	-----	-----	-----	-----	....	..G.....	[2240]
#L1PA13B	-----	-----	-----	-----	-----	-----	-----	....	..G.....	[2240]
#L1PA14	CAAAGCCTTA	GCCCAGTGAA	AACATCCAGA	AAAGAAGTCT	ATTGACTGTA	CTCAATCTAC	ACTGCAGTT.	..G.A.C.CC		[2240]

#L1PA1	AAACCACAAA	G	[2251]
#L1PA2	.....	.	[2251]
#L1PA3	.....	.	[2251]
#L1PA4	.....	.	[2251]
#L1PA5	.....	.	[2251]
#L1PA6	.....	.	[2251]
#L1PA7	..T...G..	.	[2251]
#L1PA8	..T...TG..	.	[2251]
#L1PA8A	..CT...G..	.	[2251]
#L1PA10	..CT...TG..	.	[2251]
#L1PA11	.GC.....	.	[2251]
#L1PA13B	.GC.....	.	[2251]
#L1PA14	C.CA....G.	.	[2251]