

Name	Position (kb)*	Forward primer	Reverse primer
Primers in the human β-globin locus			
5'HS7	-34.50	5'-CAGCA TGGCA AGTTG AAGAA-3'	5'-AGGGA TGCAA AAATG ACTGG-3'
HOR 5'- β 1 gene	-32.21	5'-TCTAG GGAAA GGCCT TGTGA-3'	5'-GGTTT TGCAG GTGGA GAAGA-3'
5'HS6	-27.97	5'-CACGC CGTTC CCTTT ATCTA-3'	5'-CCAGC TGTTT AACTG TGGTA A-3'
5'HS5 CTCF Site	-21.76	5'-GCTGA AGCTG CTGTT ATGAC C-3'	5'-CCAGA TGTCC TGTCC CTGTA A-3'
5'HS5 region	-21.31	5'-TTCCT TCTAC CCTCC CCATT-3'	5'-ACTGA AAGGG CTCAT GCAAC-3'
5'HS5 region	-19.96	5'-AGACA AGGAC TTGCC TGGTG-3'	5'-AGGAC CGGAC TGAAA GTGTG-3'
5'HS4	-18.39	5'-TGCCC TGCCT CTCTA CTAGG-3'	5'-ATGGG AGGGA GAGTC TCTGG-3'
HS4/3	-16.71	5'-CCAGT CTCTG CTTCC AAAGG-3'	5'-TCAGG GATGT TAGGC TCAGG-3'
5'HS3 upstream	-16.09	5'-CCCCA TCATA TGCAC AACAA-3'	5'-TTCAC AAAGC CCCAG ATTTT-3'
5'HS3 core	-14.87	5'-AGGGC CCAGA TGGGT TATAG-3'	5'-TAGGG GAGCA GTCCC ATGTA-3'
5'HS3 core 3'	-14.66	5'-GGCAA GTGCC TTGAC TCCTA-3'	5'-TCTTC TGGAA CTTGC CTGCT-3'
5'HS3 downstream	-13.14	5'-AGCCA CAGTT GCAGA CCATA-3'	5'-CCAAG GGGTC AAAGG CTAAT-3'
HS3/2	-12.95	5'-ATTAC CCTTT GACCC CTTGG-3'	5'-TTAGG GCCCT CAGTT CTTGA-3'
5'HS2 core	-10.94	5'-CCATA GTCCA AGCAT GAGCA-3'	5'-CTGGG GACCC AGATA GGAGT-3'
HS2.1	-9.81	5'-ACCCA TTACA GGACC TCACG-3'	5'-GCGAA ACCAA GTAGG CTGAC-3'
HS2.1	-7.68	5'-CCTTC ACCGA ATCTC ATCCT-3'	5'-ATGGC AGGAA AGTCC TCACT-3'
5'HS1	-5.89	5'-CCCCT AAGCT CCCAG AAAAC-3'	5'-GGCTA AGGCA TCTGT GAAGG-3'
ϵ gene-5' ~ 3.7 kb	-3.62	5'-CCTGG ATGGC CATAA CACTT-3'	5'-CTGCG GGCAG TCTCA TTATT-3'
ϵ gene promoter	-0.15	5'-GTCCA TCCAT CACTG CTGAC-3'	5'-GGCCT GAGAG CTTGC TAGTG-3'
ϵ gene-3' ~1kb	+2.56	5'-TGGTT CAAAC CCAAG AGGAG-3'	5'-AGGGT CAAGT GCATG GTTTC-3'
between ϵ & γ	+7.82	5'-CATGC CTCCA GCTTT GTTCT-3'	5'-GGCCA TACTG CCCAA AGTAA-3'
γ gene-5' ~1.0kb	+13.78	5'-CCAAG GTCAT GGATC GAGTT-3'	5'-ACACT GTGC AGCTG GGATG-3'
γ -CAC/CAT Box ¹	+14.79	5'-CCCTT CCCCA CACTA TCTCA-3'	5'-CCTGG CCTCA CTGGA TACTC-3'
γ -Promoter	+14.83	5'-AAACG GTCCC TGGCT AAAC-3'	5'-GCTGA AGGGT GCTTC CTTTT-3'
γ -TATA Box ^{1,2}	+14.94	5'-GGCTG GCTAG GGATG AAGA-3'	5'-GGCGT CTGGA CTAGG AGCTT-3'
γ -5' ~1.2kb	+18.69	5'-TCCGA TAAGC CAGAA TTCCA-3'	5'-TGGAC CATTG ACTGG GTAGG A-3'
γ -CAC/CAT Box ¹	+19.72	5'-CCCTT CCCCA CACTA TCTCA-3'	5'-CCTGG CCTCA CTGGA TACTC-3'
γ -Promoter	+19.76	5'-AAACG GTCCC TGGCT AAAC-3'	5'-GCTGA AGGGT GCTTC CTTTT-3'
γ -TATA Box ^{1,2}	+19.88	5'-GGCTG GCTAG GGATG AAGA-3'	5'-GGCGT CTGGA CTAGG AGCTT-3'
γ -Exon-1	+19.98	5'-GCCAT GGGTC ATTTT ACAG-3'	5'-TGGTC ACCAG AGCCT ACCTT-3'
γ -Exon-2	+20.22	5'-CCCAG AGGTT CTTTG ACAGC-3'	5'-TTCTC AGGAT CCACA TGCAG-3'
γ -Intron-2	+20.93	5'-TATGT CCAGG GGTGA GGAAC-3'	5'-GTTGT TCCCC TTCAA GCACT-3'
γ -Exon-3	+21.29	5'-AAATG TGCTG GTGAC CGTTT-3'	5'-TCTGA ATCAT GGGCA AGAGG-3'
γ -3' ~0.2 kb	+21.59	5'-GCCTG TTTGT GTTTG TGGTG-3'	5'-GTCTT TCTTC CCACC GGATT-3'
γ -3' ~ 2.7 kb	+24.20	5'-GAGCG GGTGA GAGAA AAGTG-3'	5'-GCCTC AGAGG AAAC TCAAG-3'
δ -5' ~ 2.5 kb	+32.84	5'-TGTA A CCAGA TCTCC CAATG TG-3'	5'-GAATG TGTTT GTGAG GGAGG A-3'
δ gene promoter	+35.05	5'-TGCAG AGGAG AACAG GGTTT-3'	5'-CTGCC TTTA TGCTG GTCCT-3'
β gene-5' ~ 2.6 kb	+40.05	5'-TGTGG CATCC ATTCA CAGAG-3'	5'-TGGTC AGAGC CTCAG TTTCA-3'
β gene promoter	+42.46	5'-GAGGG CTGAG GGTTC GAAGT-3'	5'-TAGAT GGCTC TGCCC TGAAT-3'
β gene exon1	+42.68	5'-GCAAC CTCAA ACAGA CACCA-3'	5'-CTCAC CACCA ACTTC ATCCA-3'
β gene exon2	+42.96	5'-TTGAG TCCTT TGGGG ATCTG-3'	5'-AGCTC ACTCA GTGTG GCAAA-3'
β gene intron2	+43.74	5'-TATCA TGCC TTTTG CACCA-3'	5'-AGCAG AATGG TAGCT GGATT G-3'
β gene exon3	+44.07	5'-ATCAG AAAGT GGTGG CTGGT-3'	5'-GATGC TCAAG GCCCT TCATA-3'
β gene 3' ~0.5 kb	+44.56	5'-CCCAT TTGCT TATCC TGCAT-3'	5'-GAAAC CATCT CGCCG TAAAA-3'
3'HS1-5' ~11 kb	+54.07	5'-TTCAG GCCTT GCTCA ACTCT-3'	5'-TCTAG GCTTG GCTCC TGTTT-3'
β -globin 3'HS1	+64.89	5'-TCTTC AGCCA TCCCA AGACT-3'	5'-TGGTC TTTTC TGGAC ACCAC-3'
HOR 3' β 1 gene	+69.81	5'-AGGAT CTTCT CCGCT TAGCC-3'	5'-GATGT GGGAG ATGCA GGTCT-3'
Mouse genes used for internal control			
mouse β -maj gene		5'-GTCAT CACCG AAGCC TGATT-3'	5'-TGTCT GTTTC TGGGG TTGTG-3'
Mouse GAPDH gene		5'-CGTCC CGTAG AAAAA ATGGT-3'	5'-GAATT TGCCG TGAGT GGAGT-3'
Mouse β -actin gene		5'-CCCTG AAGTA CCCCC TTGAA-3'	5'-CTTTT CACGG TTGGC CTTAG-3'
Mouse Aire gene		5'-CACAC AGGCA ATTTG TCCAC-3'	5'-AGAGG AAGCG GAAAA GTTGT-3'
Mouse PC gene		5'-TGGAA CTCAA CACTC CGTTG-3'	5'-AATGC ACTGC CAGAC ACAAG-3'

*The cap site of the ϵ -globin gene set as 1.