

FGENESH 2.6 Prediction of potential genes in Homo_sapiens genomic DNA

Seq name: gi|13907843|ref|NG_000007.1| Homo sapiens genomic beta globin region (HBB@) on

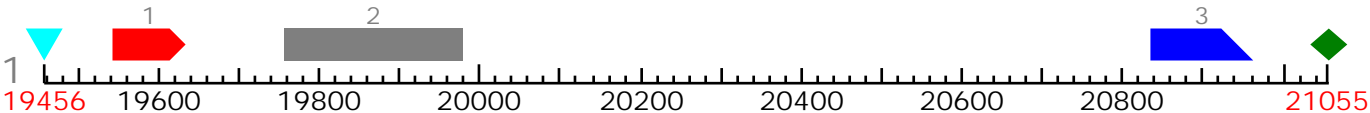
Length of sequence: 73308

Number of predicted genes 10: in +chain 10, in -chain 0.

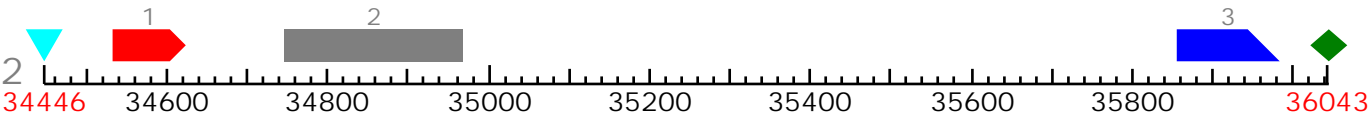
Number of predicted exons 21: in +chain 21, in -chain 0.

Positions of predicted genes and exons: Variant 1 from 1, Score:180.171887

CDSf CDSi CDSl CDSo PoIA TSS



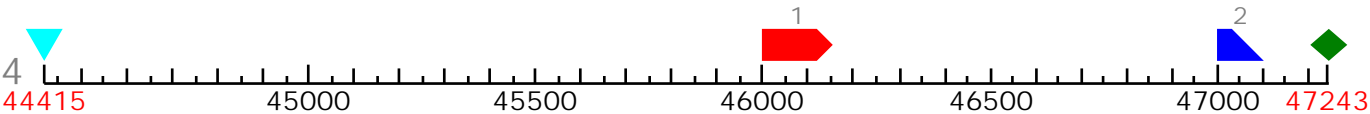
1 +	TSS	19456			-7.09			
1 +	1 CDSf	19541 -	19632	16.13	19541 -	19630	90	
1 +	2 CDSi	19755 -	19977	13.37	19756 -	19977	222	
1 +	3 CDSl	20833 -	20961	3.34	20833 -	20961	129	
1 +	PoIA	21055		1.12				



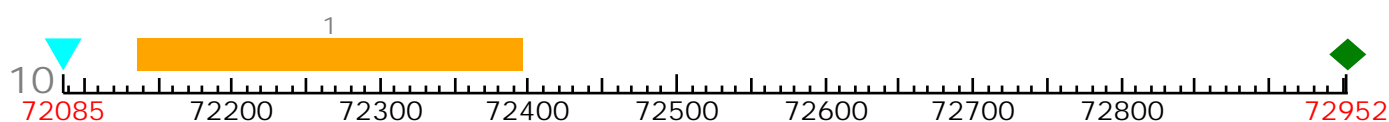
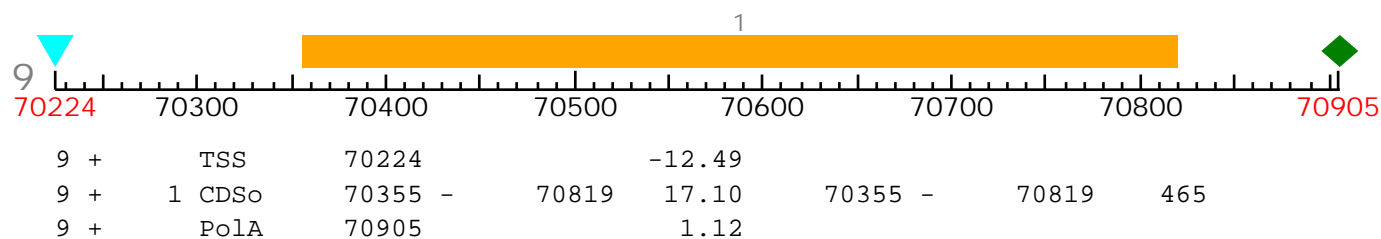
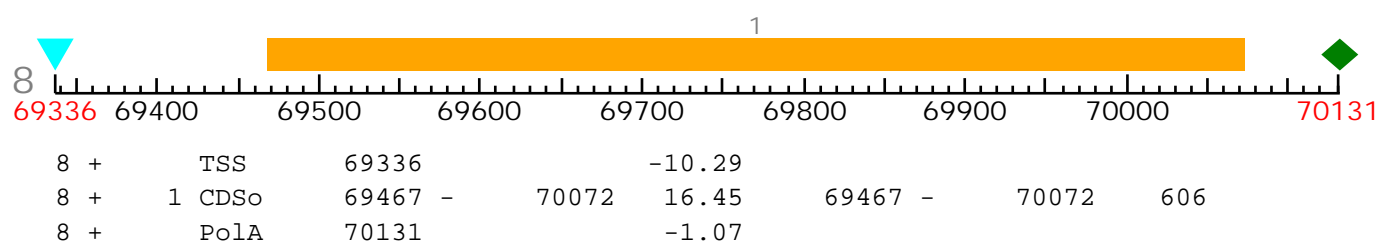
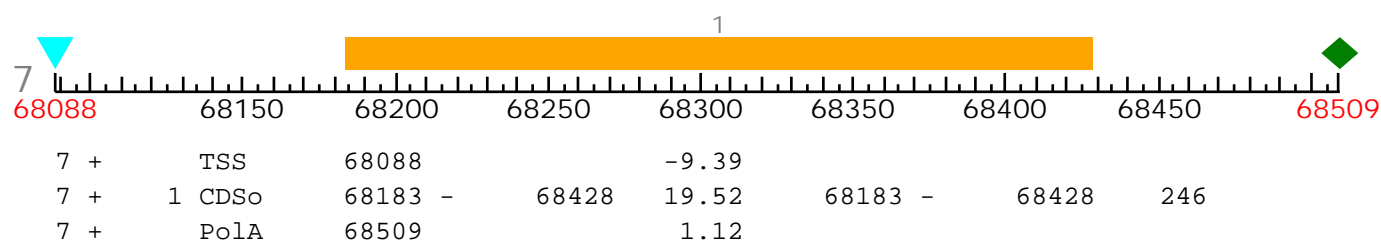
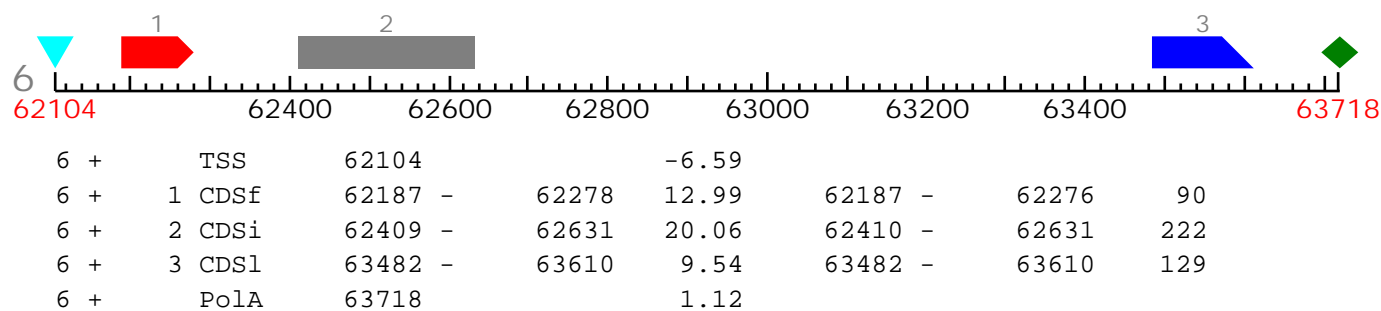
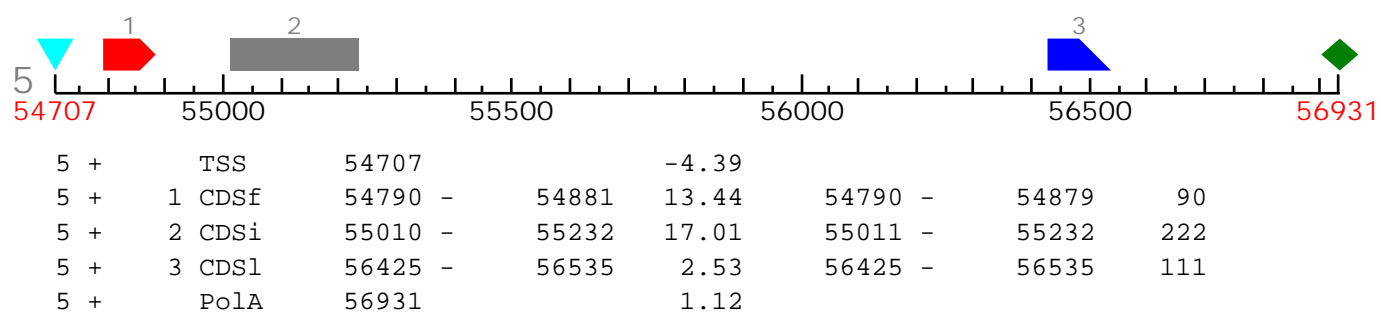
2 +	TSS	34446			-7.09			
2 +	1 CDSf	34531 -	34622	13.42	34531 -	34620	90	
2 +	2 CDSi	34745 -	34967	21.52	34746 -	34967	222	
2 +	3 CDSl	35854 -	35982	2.92	35854 -	35982	129	
2 +	PoIA	36043		1.12				



3 +	TSS	39382			-7.09			
3 +	1 CDSf	39467 -	39558	13.42	39467 -	39556	90	
3 +	2 CDSi	39681 -	39903	21.52	39682 -	39903	222	
3 +	3 CDSl	40770 -	40898	3.66	40770 -	40898	129	
3 +	PoIA	40959		1.12				



4 +	TSS	44415			-8.69			
4 +	1 CDSf	45995 -	46151	16.58	45995 -	46150	156	
4 +	2 CDSl	46997 -	47100	-1.94	46999 -	47100	102	
4 +	PoIA	47243		1.12				



10 +	TSS	72085		-6.39			
10 +	1 CDS	72135 -	72395	7.31	72135 -	72395	261
10 +	PolA	72952		1.12			

Predicted protein(s):

>FGENESH:[mRNA] 1 3 exon (s) 19541 - 20961 444 bp, chain +
 ATGGTGCATTTTACTGCTGAGGAGAAGGCTGCCGTCACTAGCCTGTGGAGCAAGATGAAT
 GTGGAAGAGGCTGGAGGTGAAGCCTTGGGCAGACTCCTCGTTGTTTACCCCTGGACCCAG
 AGATTTTTTTGACAGCTTTTGGAACCTGTCGTCTCCCTCTGCCATCCTGGGCAACCCCAAG
 GTCAAGGCCCATGGCAAGAAGGTGCTGACTTCCTTTGGAGATGCTATTA AAAACATGGAC
 AACCTCAAGCCCGCCTTTGCTAAGCTGAGTGAGCTGCACTGTGACAAGCTGCATGTGGAT
 CCTGAGAACTTCAAGCTCCTGGGTAACGTGATGGTGATTATTCTGGCTACTCACTTTGGC
 AAGGAGTTCACCCCTGAAGTGCAGGCTGCCTGGCAGAAGCTGGTGTCTGCTGTCGCCATT
 GCCCTGGCCCATAAGTACCACTGA

>FGENESH: 1 3 exon (s) 19541 - 20961 147 aa, chain +
 MVHFTAEEKAAVTSLSKMNVEEAGGEALGRLLVVYPWTQRFFDSFGNLSSPSAILGNPK
 VKAHGKKVLTSFGDAIKNMDNLKPAFAKLSELHCDKLHVDPENFKLLGNVMVII LATHFG
 KEFTPEVQAAWQKLVS AVAIALAHKYH

>FGENESH:[mRNA] 2 3 exon (s) 34531 - 35982 444 bp, chain +
 ATGGGTCAATTTACAGAGGAGGACAAGGCTACTATCACAAGCCTGTGGGGCAAGGTGAAT
 GTGGAAGATGCTGGAGGAGAAACCCTGGGAAGGCTCCTGGTTGTCTACCCATGGACCCAG
 AGGTTCTTTGACAGCTTTGGCAACCTGTCCTCTGCCTCTGCCATCATGGGCAACCCCAAA
 GTCAAGGCACATGGCAAGAAGGTGCTGACTTCCTTGGGAGATGCCATAAAGCACCTGGAT
 GATCTCAAGGGCACCTTTGCCCAGCTGAGTGAAGTGCCTGTGACAAGCTGCATGTGGAT
 CCTGAGAACTTCAAGCTCCTGGGAAATGTGCTGGTGACCGTTTTGGCAATCCATTTTCGGC
 AAAGAATTACCCCTGAGGTGCAGGCTTCCTGGCAGAAGATGGTGAAGTGGAGTGGCCAGT
 GCCCTGTCTCCAGATAACCACTGA

>FGENESH: 2 3 exon (s) 34531 - 35982 147 aa, chain +
 MGHFTEEDKATITSLWGKVNVEDAGGETLGRLLVVYPWTQRFFDSFGNLSSASAIMGNPK
 VKAHGKKVLTS LGDAIKHLDDLKGTFAQLSELHCDKLHVDPENFKLLGNVLVTVLAIHFG
 KEFTPEVQASWQKMVTGVASALSSRYH

>FGENESH:[mRNA] 3 3 exon (s) 39467 - 40898 444 bp, chain +
 ATGGGTCAATTTACAGAGGAGGACAAGGCTACTATCACAAGCCTGTGGGGCAAGGTGAAT
 GTGGAAGATGCTGGAGGAGAAACCCTGGGAAGGCTCCTGGTTGTCTACCCATGGACCCAG
 AGGTTCTTTGACAGCTTTGGCAACCTGTCCTCTGCCTCTGCCATCATGGGCAACCCCAAA
 GTCAAGGCACATGGCAAGAAGGTGCTGACTTCCTTGGGAGATGCCATAAAGCACCTGGAT
 GATCTCAAGGGCACCTTTGCCCAGCTGAGTGAAGTGCCTGTGACAAGCTGCATGTGGAT
 CCTGAGAACTTCAAGCTCCTGGGAAATGTGCTGGTGACCGTTTTGGCAATCCATTTTCGGC
 AAAGAATTACCCCTGAGGTGCAGGCTTCCTGGCAGAAGATGGTGAAGTGCAGTGGCCAGT
 GCCCTGTCTCCAGATAACCACTGA

>FGENESH: 3 3 exon (s) 39467 - 40898 147 aa, chain +
 MGHFTEEDKATITSLWGKVNVEDAGGETLGRLLVVYPWTQRFFDSFGNLSSASAIMGNPK
 VKAHGKKVLTS LGDAIKHLDDLKGTFAQLSELHCDKLHVDPENFKLLGNVLVTVLAIHFG
 KEFTPEVQASWQKMVTAVASALSSRYH

>FGENESH:[mRNA] 4 2 exon (s) 45995 - 47100 261 bp, chain +
 ATGGGCAACCCCAAGTCAAGGCACATGGCAAGAAGGTGCTGATCTCCTTCGGAAAAGCT
 GTTATGCTCACGGATGACCTCAAAGGCACCTTTGCTACACTGAGTGACCTGCACTGTAAC
 AAGCTGCACGTGGACCCTGAGAACTTCCTGGTGAGTACTCTTAGGCAACGTGATATTGAT

TGTTTTGGCAACCCACTTCAGCGAGGATTTTACCCTACAGATACAGGCTTCTTGGCAGTA
ACTAACAAATGCTGTGGTTAA

>FGENESH: 4 2 exon (s) 45995 - 47100 86 aa, chain +
MGNPKVKAHGKKVLISFGKAVMLTDDLKGTFTLSDLHCNKLHVDPENFLVSTLRQRDID
CFGNPLQRGFYPTDTGFLAVTNKCCG

>FGENESH:[mRNA] 5 3 exon (s) 54790 - 56535 426 bp, chain +
ATGGTGCATCTGACTCCTGAGGAGAAGACTGCTGTCAATGCCCTGTGGGGCAAAGTGAAC
GTGGATGCAGTTGGTGGTGAGGCCCTGGGCAGATTACTGGTGGTCTACCCTTGGACCCAG
AGGTTCTTTGAGTCCTTTGGGGATCTGTCCTCTCCTGATGCTGTTATGGGCAACCCTAAG
GTGAAGGCTCATGGCAAGAAGGTGCTAGGTGCCTTTAGTGATGGCCTGGCTCACCTGGAC
AACCTCAAGGGCACTTTTTTCTCAGCTGAGTGAGCTGCACTGTGACAAGCTGCACGTGGAT
CCTGAGAACTTCAGGGTGTGTAAGAAGGTTCTGAGGCTCTACAGATAGGGAGCACTTGT
TTATTTTACAAAGAGTACATGGGAAAAGAGAAAAGCAAGGGAACCGTACAAGGCATTAAT
GGGTGA

>FGENESH: 5 3 exon (s) 54790 - 56535 141 aa, chain +
MVHLTPEEKTAVNALWGKVNVDVGGGALGRLLVVYPWTQRFFESFGDLSSPDVAVMGNPK
VKAHGKKVLGAFSDGLAHLNLDLKGTFSQLSELHCDKLHVDPENFRVCKKVPEALQIGSTC
LFYKEYMGKEKSKGTVQGING

>FGENESH:[mRNA] 6 3 exon (s) 62187 - 63610 444 bp, chain +
ATGGTGCACCTGACTCCTGAGGAGAAGTCTGCCGTTACTGCCCTGTGGGGCAAAGGTGAAC
GTGGATGAAGTTGGTGGTGAGGCCCTGGGCAGGCTGCTGGTGGTCTACCCTTGGACCCAG
AGGTTCTTTGAGTCCTTTGGGGATCTGTCCACTCCTGATGCTGTTATGGGCAACCCTAAG
GTGAAGGCTCATGGCAAGAAAGTGCTCGGTGCCTTTAGTGATGGCCTGGCTCACCTGGAC
AACCTCAAGGGCACCTTTGCCACACTGAGTGAGCTGCACTGTGACAAGCTGCACGTGGAT
CCTGAGAACTTCAGGCTCCTGGGCAACGTGCTGGTCTGTGTGCTGGCCCATCACTTTGGC
AAAGAATTACCCCCACCAGTGCAGGCTGCCTATCAGAAAGTGGTGGCTGGTGTGGCTAAT
GCCCTGGCCACAAAGTATCACTAA

>FGENESH: 6 3 exon (s) 62187 - 63610 147 aa, chain +
MVHLTPEEKSAVTALWGKVNVDVGGGALGRLLVVYPWTQRFFESFGDLSTPDVAVMGNPK
VKAHGKKVLGAFSDGLAHLNLDLKGTFATLSELHCDKLHVDPENFRLLGNVLVCVLAHHFG
KEFTPPVQAAYQKVAVAGVANALAHKYH

>FGENESH:[mRNA] 7 1 exon (s) 68183 - 68428 246 bp, chain +
ATGGAACAAAGCTGGGCAGAGAATGACTTTGACGAGTTGAGAGAGGAAGGCTTCAGAAGA
TCAAATACTCCAAGCTAAAGGAGGAAGTTCGAACAAACGGCAAAGAAGTAAAAAACTTT
GAAAAAAATTAGATGAATGGATACTAGAATAACCAATGCACAGAAGTCCTTAAAGGAC
CTGATGGAGCTGAAAACCAAGGCAGGAGAACTACGTGACAAATACACAAGCCTCAGTAAC
CGATGA

>FGENESH: 7 1 exon (s) 68183 - 68428 81 aa, chain +
MEQSWAENDFDELREEGFRRSNYSKLKEEVRTNGKEVKNFEEKLDEWITRITNAQKSLKD
LMELKTKAGELRDKYTSLSNR

>FGENESH:[mRNA] 8 1 exon (s) 69467 - 70072 606 bp, chain +
ATGGCAAAGGGATCTATTCAAGAAGAAGAACTAACTATACTAAATATATATGCACCCAAT
ACAGGAGCACCCAGATTCATAAAACAAGTCCTGAGTGACCTACAAAGAGACTTAGATGCC
CACACAATAATAATGGGAGACTTTAACACCCCACTGTCAACATTAGACAGATCAACGAGA
CAGAAAGTTAACAAGGATATCCAGGAATTGGACTCAGCTCTGCACCAAGCAGACCTAATA
GACATCTACAGAACTCTCCACCCCAAATCAACAGAATATACATTCTTTTTCAGCACCCACAC
CACACCTATTCCAAAACCTGACCACATAGTTGGAAGTAAAGCTCTCCTCAGCAAATGTAAA
AGAACAGAACTATAACAAACTGTCTCTCAGACCACAGTGCAATCAAACCTAGAAGTACAGG

ATTAAGAACTCACTCAAAACCACTCAGCTACATGGAACTGAACAGCCTGCTCCTGAAT
GACTACTGGGTACATAACAAAATGAAGGCAGAAATAAAGATGTTCTTTGAAACAACGAGA
ACAAAGACACAACACACCAGAATCTCTGAGACACATTCAAAGCAGTGTGTAGAGGGAAAT
TTATAG

>FGENESH: 8 1 exon (s) 69467 - 70072 201 aa, chain +
MAKGSIQEEELTILNIYAPNTGAPRFIKQVLSDLQRDLDAHTIIMGDFNTPLSTLDRSTR
QKVNKDIQELDSALHQADLIDIYRTLHPKSTEYTFFSAPHHTYSKTDHIVGSKALLSKCK
RTETITNCLSDHSAIKLELRICKLTQNHSATWKLNSLLLLNDYWVHNKMKAEIKMFFETTR
TKTQHTRISETHSKQCVEGNL

>FGENESH:[mRNA] 9 1 exon (s) 70355 - 70819 465 bp, chain +
ATGACACGGGGTATCACCCTGATCCCACAGAAATACAACTACCGTCAGAGAATACTAT
AAACACCTCTACGCAAATAAACTAGAAAATCTAGAAGAAATGGATAAATTCCTCGACACA
TACACTCTGCCAAGACTAAACCAGGAAGAAGTTGTATCTCTGAATAGACCAATAACAGGC
TCTGAAATTGAGGCAATAATTAATAGCTTATCAACCAAAAAAAGTCCGGGACCAGTAGGA
TTCATAGCCGAATTCTACCAGAGGTACAAGGAGGAGCTGGTACCATTCTTCTGAAACTA
TTCCAATCAATAGAAAAAGAGGGAATCCTCCCTAACTCATTTTATGAGGCCAGCATCATC
CTGATACCAAAGCCTGACAGAGACACAACAAAAAAGAGAATGTTACACCAATATCCTTG
ATGAACATCGATGCAAAAATCCTCAATAAAATACTGGCAAACCTGA

>FGENESH: 9 1 exon (s) 70355 - 70819 154 aa, chain +
MTRGITTDPTIEIQTTVREYYKHLKYANKLENLEEMDKFLDTYTLPRLNQEEVVSILNRPITG
SEIEAIINSLSTKKSPGPVGFIAEFYQRYKEELVPFLKLQFQSIEKEGILPNSFYEASII
LIPKPDRDITTKKENVTPISLMNIDAKILNKILAN

>FGENESH:[mRNA] 10 1 exon (s) 72135 - 72395 261 bp, chain +
ATGGGCAAGGACTTCATGTCTAAAACACCAAAACGAATGGCAACAAAAGACAAAATGGAC
AAACGGGATCTAATTAACTAAAGAGCTTCTGCACAGCTAAAGAACTACCATCAGAGTG
AACAGGCAACCTACAAAATGGGAGAAAATTTTTGCAATCTACTCATCTGACAAAGGGCTA
ATATCCAGAATCTACAATGAACTCAAACAAATTTACAAGAAAAACAAACAACCCCATCA
AAAAGTGGGCAAAGGATATGA

>FGENESH: 10 1 exon (s) 72135 - 72395 86 aa, chain +
MGKDFMSKTPKRMATKDKMDKRDLIKLSFCTAKETTIRVNRQPTKWEKIFAIYSSDKGL
ISRIYNELKQIYKKKQTTTPSKSGQRI