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Product datasheet for KN507591

Hbb-b1 Mouse Gene Knockout Kit (CRISPR)

Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 linear donor
Donor DNA:	EF1a-GFP-P2A-Puro
Symbol:	Hbb-b1
Locus ID:	15129

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Components:

KN507591G1, Hbb-b1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN507591G2, Hbb-b1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN507591D, Linear donor DNA containing LoxP-EF1A-tGFP-P2A-Puro-LoxP:

The sequence below is cassette sequence only. The linear donor DNA also contains proprietary target sequence.

LoxP-EF1A-tGFP-P2A-Puro-LoxP (2739 bp)

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ATAACTTCGT ATAATGTATG CTATACGAAG TTATCGTGAG GCTCCGGTGC CCGTCAGTGG GCAGAGCGCA CATCGCCCAC
AGTCCCCGAG AAGTTGGGGG GAGGGGTCGG CAATTGAACC GGTGCCTAGA GAAGGTGGCG CGGGGTAAAC TGGGAAAGTG
ATGTCGTGTA CTGGCTCCGC CTTTTTCCCG AGGGTGGGGG AGAACCGTAT ATAAGTGCAG TAGTCGCCGT GAACGTTCTT
TTTCGCAACG GGTTTGCCGC CAGAACACAG GTAAGTGCCG TGTGTGGTTC CCGCGGGCCT GGCCTCTTTA CGGGTTATGG
CCCTTGCGTG CCTTGAATTA CTTCCACCTG GCTGCAGTAC GTGATTCTTG ATCCCGAGCT TCGGGTTGGA AGTGGGTGGG
AGAGTTCGAG GCCTTGCGCT TAAGGAGCCC CTTCGCCTCG TGCTTGAGTT GAGGCCTGGC CTGGGCGCTG GGGCCGCCGC
GTGCGAATCT GGTGGCACCT TCGCGCCTGT CTCGCTGCTT TCGATAAGTC TCTAGCCATT TAAAATTTTT GATGACCTGC
TGCGACGCTT TTTTTCTGGC AAGATAGTCT TGTAAATGCG GGCCAAGATC TGCACACTGG TATTTCGGTT TTTGGGGCCG
CGGGCGGCGA CGGGGCCCGT GCGTCCCAGC GCACATGTTC GGCGAGGCGG GGCCTGCGAG CGCGGCCACC GAGAATCGGA
CGGGGGTAGT CTCAAGCTGG CCGGCCTGCT CTGGTGCCTG GCCTCGCGCC GCCGTGTATC GCCCCGCCCT GGGCGGCAAG
GCTGGCCCGG TCGGCACCAG TTGCGTGAGC GGAAAGATGG CCGCTTCCCG GCCCTGCTGC AGGGAGCTCA AAATGGAGGA
CGCGGCGCTC GGGAGAGCGG GCGGGTGAGT CACCCACACA AAGGAAAAGG GCCTTTCCGT CCTCAGCCGT CGCTTCATGT
GACTCCACGG AGTACCGGGC GCCGTCCAGG CACCTCGATT AGTTCTCGAG CTTTTGGAGT ACGTCGTCTT TAGGTTGGGG
GGAGGGGTTT TATGCGATGG AGTTTCCCCA CACTGAGTGG GTGGAGACTG AAGTTAGGCC AGCTTGGCAC TTGATGTAAT
TCTCCTTGGA ATTTGCCCTT TTTGAGTTTG GATCTTGGTT CATTCTCAAG CCTCAGACAG TGGTTCAAAG TTTTTTTCTT
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GAACGGCGTG GAGTTCGAGC TGGTGGGCGG CGGAGAGGGC ACCCCCGAGC AGGGCCGCAT GACCAACAAG ATGAAGAGCA
CCAAAGGCGC CCTGACCTTC AGCCCCTACC TGCTGAGCCA CGTGATGGGC TACGGCTTCT ACCACTTCGG CACCTACCCC
AGCGGCTACG AGAACCCCTT CCTGCACGCC ATCAACAACG GCGGCTACAC CAACACCCGC ATCGAGAAGT ACGAGGACGG
CGGCGTGCTG CACGTGAGCT TCAGCTACCG CTACGAGGCC GGCCGCGTGA TCGGCGACTT CAAGGTGATG GGCACCGGCT
TCCCCGAGGA CAGCGTGATC TTCACCGACA AGATCATCCG CAGCAACGCC ACCGTGGAGC ACCTGCACCC CATGGGCGAT
AACGATCTGG ATGGCAGCTT CACCCGCACC TTCAGCCTGC GCGACGGCGG CTACTACAGC TCCGTGGTGG ACAGCCACAT
GCACTTCAAG AGCGCCATCC ACCCCAGCAT CCTGCAGAAC GGGGGCCCCA TGTTCGCCTT CCGCCGCGTG GAGGAGGATC
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AGCGGAGCTA CTAACTTCAG CCTGCTGAAG CAGGCTGGAG ACGTGGAGGA GAACCCTGGA CCTATGACCG AGTACAAGCC
CACGGTGCGC CTCGCCACCC GCGACGACGT CCCCAGGGCC GTACGCACCC TCGCCGCCGC GTTCGCCGAC TACCCCGCCA
CGCGCCACAC CGTCGATCCG GACCGCCACA TCGAGCGGGT CACCGAGCTG CAAGAACTCT TCCTCACGCG CGTCGGGCTC
GACATCGGCA AGGTGTGGGT CGCGGACGAC GGCGCCGCGG TGGCGGTCTG GACCACGCCG GAGAGCGTCG AAGCGGGGGC
GGTGTTCGCC GAGATCGGCC CGCGCATGGC CGAGTTGAGC GGTTCCCGGC TGGCCGCGCA GCAACAGATG GAAGGCCTCC
TGGCGCCGCA CCGGCCCAAG GAGCCCGCGT GGTTCCTGGC CACCGTCGGC GTCTCGCCCG ACCACCAGGG CAAGGGTCTG
GGCAGCGCCG TCGTGCTCCC CGGAGTGGAG GCGGCCGAGC GCGCCGGGGT GCCCGCCTTC CTGGAGACCT CCGCGCCCCG
CAACCTCCCC TTCTACGAGC GGCTCGGCTT CACCGTCACC GCCGACGTCG AGGTGCCCGA AGGACCGCGC ACCTGGTGCA
TGACCCGCAA GCCCGGTGCC TGAAACTTGT TTATTGCAGC TTATAATGGT TACAAATAAA GCAATAGCAT CACAAATTTC
ACAAATAAAG CATTTTTTTC ACTGCATTCT AGTTGTGGTT TGTCCAAACT CATCAATGTA TCTTAATAAC TTCGTATAAT
GTATGCTATA CGAAGTTAT
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OTI Disclaimer: These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.

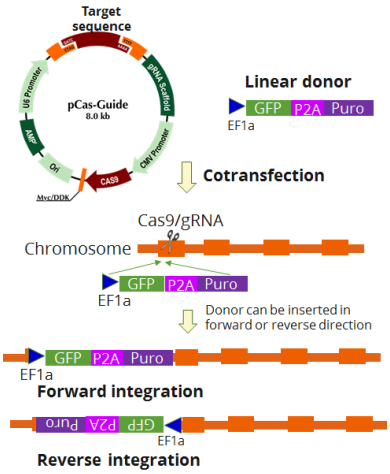
RefSeq: NM_001278161

UniProt ID: P02088

Synonyms: AA409645; beta1; Hbb1; Hbbt1; Hbbt2; MommeD7

Summary: This gene encodes a beta polypeptide chain found in adult hemoglobin, which consists of a tetramer of two alpha chains and two beta chains, and which functions in the transport of oxygen to various peripheral tissues. This gene is one of a cluster of beta-hemoglobin genes that are distally regulated by a locus control region, and which are organized along the chromosome in the order of their developmental expression. In mouse, two major strain-specific haplotypes of the beta-globin gene cluster are found - a "single" haplotype found in C57BL/-type strains, which includes two highly similar adult beta-globin genes, beta s and beta t, and a "diffuse" haplotype found in strains such as BALB/c and 129Sv, which includes two somewhat diverse adult beta-globin genes, beta-major and beta-minor. This gene represents the beta-major adult gene found in the "diffuse" haplotype. Primary chromosome 7 of the mouse reference genome assembly, which is derived from C57BL/6 strain mice, represents the "single" haplotype, while the "diffuse" haplotype is represented in the reference genome collection by the BALB/c strain alternate contig, NT_095534.1. [provided by RefSeq, May 2013]

Product images:



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