

Product datasheet for **MG201002**

Hbb-b2 (NM_016956) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Hbb-b2 (NM_016956) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Hbb-b2
Synonyms: A1036344; beta2; Hbb2; Hbbt2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG201002 representing NM_016956
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTGCACCTGACTGATGCTGAGAAGTCTGCTGTCTCTTGCCTGTGGCAAAGGTGAACCCCGATGAAG
TTGGTGGTGAGGCCCTGGCAGGCTGCTGGTTGTCTACCCTTGGACCCAGCGGTACTTTGATAGCTTTGG
AGACCTATCCTCTGCCTCTGCTATCATGGGTAATCCCAAGGTGAAGGCCCATGGCAAAAAGGTGATAACT
GCCTTTAACGAGGGCCTGAAAACTGGACAACCTCAAGGGCACCTTTGCCAGCCTCAGTGAGCTCCACT
GTGACAAGCTGCATGTGGATCCTGAGAACTTCAGGCTCCTGGCAATGCGATCGTGATTGTGCTGGCCA
CCACCTGGCAAGGATTCACCCCTGCTGCACAGGCTGCCTTCCAGAAGGTGGTGGCTGGAGTGGCCACT
GCCTGGCTCACAAGTACCAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG201002 representing NM_016956
Red=Cloning site Green=Tags(s)

MVHLTDAEKSAVSCLWAKVNPDEVGGEALGRLLVYYPWTQRYFDSFGDLSSASAIMGNPKVKAHGKVVIT
AFNEGLKNLDNLKGFASLSELHCDKLHVDPENFRLLGNAIVIVLGHHLGKDFTPAAQAQFQKVAVGAT
ALAHKYH

TRTRPLE - GFP Tag - V

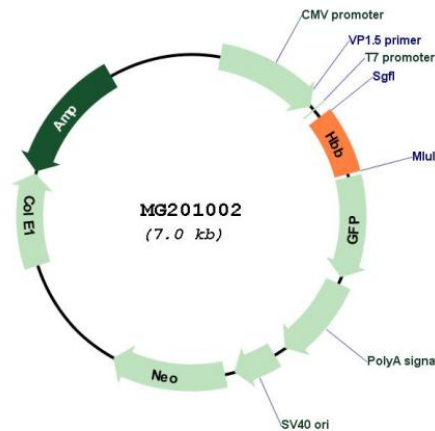
Restriction Sites: Sgfl-MluI



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Cloning Scheme:

Cloning sites used for ORF Shutting:


Plasmid Map:

ACCN: NM_016956

ORF Size: 441 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	<u>NM_016956.2, NP_058652.1</u>
RefSeq Size:	632 bp
RefSeq ORF:	444 bp
Locus ID:	15130
UniProt ID:	<u>P02089</u>
Cytogenetics:	7 54.85 cM
Gene Summary:	<p>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-minor 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]</p>