

Product datasheet for **MG201219**

Hscb (NM_153571) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Hscb (NM_153571) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Hscb
Synonyms: AI325508; AW049829; Hsc20
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG201219 representing NM_153571
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAAGTCAACCGCTCCTTCAGGGTGGACGTTACGAACTTCAGCACAGGTACCAGCAACTGCAGCGGC
 TTGTCCACCCAGATTTCTTCAGCCAAAAGTCTCAGACTGAAAACACTTCTCTGACAAGCACTCCACCT
 GGTGAATGATGCCTATAAGACTTTCAGGCTCCCTGACCAGAGGACTATATCTTCTAAAGCTCCAGGGA
 ATAGAAATTCCTGAAGGGACAGATTACAAAGCAGACAGTCAGTTCCTTGTGAAATCATGAAATCAATG
 AAAGACTCGCAGACGCCAAAAGTGAGGCCGCCATGGAAGAGATAGAAGCCACTGTCAGAGCTAAACAGAA
 AGAATTTACTGACAATATAAACAGCGCTTTTGAACAAGGTGACTTTGAAAAGCCAAGGAACTCCTGACA
 AAGATGAGATACTTTTGAACATAGAAGAAAAGATCAAGCTAAGCAAGACTCCTCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG201219 representing NM_153571
 Red=Cloning site Green=Tags(s)

MNCNRSFRVDVTKLQHRYQQLQRLVHPDFFSQKSQTEKHFSDKHSTLVNDAYKTLQAPLTRGLYLLKLQG
 IEIPEGTDYKADSQFLVEIMEINERLADAQSEAAMEEIEATVRAKQKEFTDNINSAFEQGDPEKAKELLT
 KMRYFSNIEEKIKLSKTPL

TRTRPLE - GFP Tag - V

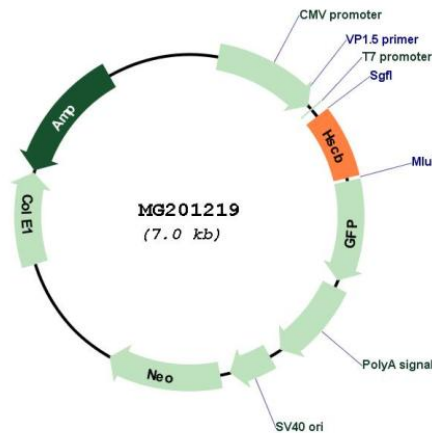
Restriction Sites: SgfI-MluI



Cloning Scheme:



Plasmid Map:



ACCN: NM_153571

ORF Size: 477 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_153571.1, NP_705799.1</u>
RefSeq Size:	789 bp
RefSeq ORF:	705 bp
Locus ID:	100900
UniProt ID:	<u>Q8K3A0</u>
Cytogenetics:	5 F
Gene Summary:	Acts as a co-chaperone in iron-sulfur cluster assembly in both mitochondria and the cytoplasm. Required for incorporation of iron-sulfur clusters into SDHB, the iron-sulfur protein subunit of succinate dehydrogenase that is involved in complex II of the mitochondrial electron transport chain. Recruited to SDHB by interaction with SDHAF1 which first binds SDHB and then recruits the iron-sulfur transfer complex formed by HSC20, HSPA9 and ISCU through direct binding to HSC20. Also mediates complex formation between components of the cytosolic iron-sulfur biogenesis pathway and the CIA targeting complex composed of CIAO1, DIPK1B/FAM69B and MMS19 by binding directly to the scaffold protein ISCU and to CIAO1. This facilitates iron-sulfur cluster insertion into a number of cytoplasmic and nuclear proteins including POLD1, ELP3, DPYD and PPAT.[UniProtKB/Swiss-Prot Function]