

Product datasheet for MR201219

Hscb (NM_153571) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Hscb (NM_153571) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Hscb
Synonyms: AI325508; AW049829; Hsc20
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR201219 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAAGTCAACCGCTCCTTCAGGGTGGACGTTACGAACTTCAGCACAGGTACCAGCAACTGCAGCGGC
 TTGTCCACCCAGATTTCTTCAGCCAAAAGTCTCAGACTGAAAACACTTCTCTGACAAGCACTCCACCT
 GGTGAATGATGCCTATAAGACTCTTCAGGCTCCCTGACCAGAGGACTATATCTTCTAAAGCTCCAGGGA
 ATAGAAATTCCTGAAGGGACAGATTACAAAGCAGACAGTCAGTTCCTTGTGAAATCATGAAATCAATG
 AAAGACTCGCAGACGCCAAAGTGAGGCCGCCATGGAAGAGATAGAAGCCACTGTCAGAGCTAAACAGAA
 AGAATTTACTGACAATATAAACAGCGCTTTTGAACAAGGTGACTTTGAAAAGCCAAGGAACTCCTGACA
 AAGATGAGATACTTTTGAACATAGAAGAAAAGATCAAGCTAAGCAAGACTCCTCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR201219 protein sequence
 Red=Cloning site Green=Tags(s)

MNCNRSFRVDVTKLQHRYQLQRLVHPDFFSQKSQTEKHFSDKHSTLVNDAYKTLQAPLTRGLYLLKLQG
 IEIPEGTDYKADSQFLVEIMEINERLADAQSEAAMEEIEATVRAKQKEFTDNINSAFEQGDPEKAKELLT
 KMRYFSNIEEKIKLSKTPL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI



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Cloning Scheme:


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:**
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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_153571.1](#), [NP_705799.1](#)

RefSeq Size: 825 bp

RefSeq ORF: 705 bp

Locus ID: 100900

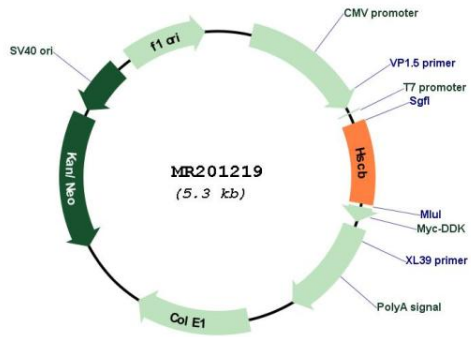
UniProt ID: [Q8K3A0](#)

Cytogenetics: 5 F

MW: 18.5 kDa

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]

Product images:



Circular map for MR201219