

Product datasheet for **RC200843**

HSCB (NM_172002) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	HSCB
Synonyms:	DNAJC20; HSC20; JAC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200843 representing NM_172002 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTGGCGGGGAGAGCCGGGGCTTTGCTCCGGGTGTGGGGTTTTGGCCGACAGGGTTCCCAGAAGGA
 GACCGCTAAGCTGCGATGCTGCTCGCAGGCGGGAAGCAATTATCCCGCTGTTGGAAGTGCAGCGGCC
 ATGGGGCCCCGGGCGGGAGGACAGGTTCTTCTGCCCACAGTGCCGAGCGCTGCAGGCACCTGACCCCACT
 CGAGACTACTTCAGCCTTATGGACTGCAACCGTTCCTTCAGAGTTGATACAGCGAAGCTCCAGCACAGGT
 ACCAGCAACTGCAGCGTCTTGTCACCCAGATTTCTTCAGCCAGAGGTCTCAGACTGAAAAGGACTTCTC
 AGAGAAGCATTTCGACCCTGGTGAATGATGCCTATAAGACCCTCCTGGCCCCCTGAGCAGAGGACTGTAC
 CTTCTAAAGCTCCATGGAATAGAGATTCTGAAAGGACAGATTATGAAATGGACAGGCAATTCCTCATAG
 AAATAATGGAAATCAATGAAAACTCGCAGAAGCTGAAAGTGAAGCTGCCATGAAAGAGATTGAATCCAT
 TGTCAAAGCTAACAGAAAGAAATTTACTGACAATGTGAGCAGTGCTTTTGAACAAGATGACTTTGAAGAA
 GCCAAGGAAATTTTGACAAAGATGAGATACTTTCAAATATAGAAGAAAAGATCAAGTTAAAGAAGATTC
 CCCTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC200843 representing NM_172002
 Red=Cloning site Green=Tags(s)

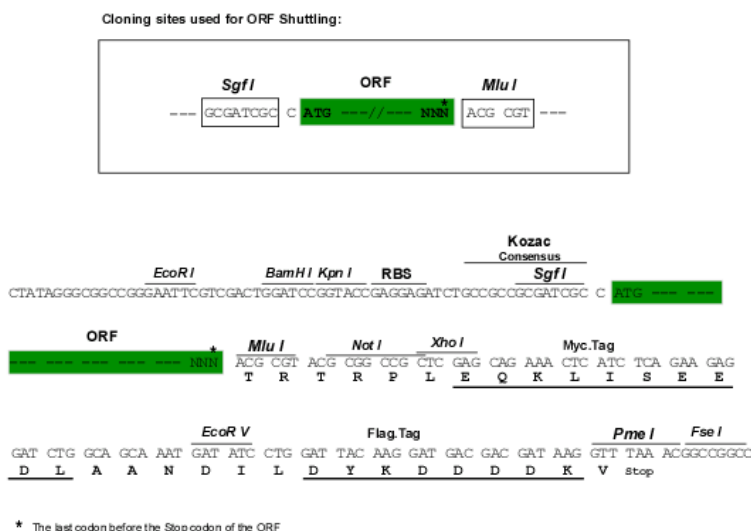
MWRGRAGALLRVWGFWPTGVPRRRPLSCDAASQAGSNYPWCWCGGPWGPREDRFFCPQCRALQAPDPT
 RDYFSLMDCNRSFRVDTAKLQHRYQLQLVHPDFFSQRSQTEKDFSEKHSTLVNDAYKTL LAP SRGLY
 LLKLHGIEIPERTDYEMDRQFLIEIMEINEKLAEAESEAMKEIESIVKAKQKEFTDNVSSAFEQDDFEE
 AKEILTKMRYFSNIEEKIKLKKIPL

TRTRPLEOKLISEEDLAANDILDYKDDDDKY

Chromatograms: https://cdn.origene.com/chromatograms/mk6392_f10.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM 172002

ORF Size: 705 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_172002.5](#)

RefSeq Size: 1106 bp

RefSeq ORF: 708 bp

Locus ID: 150274

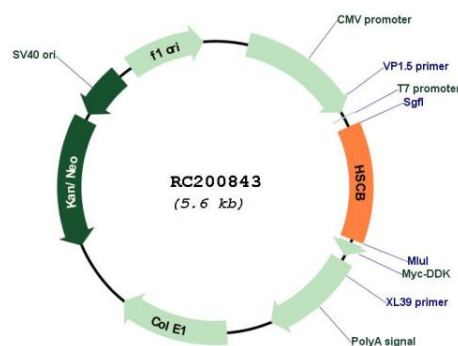
UniProt ID: [Q8IWL3](#)

Cytogenetics: 22q12.1

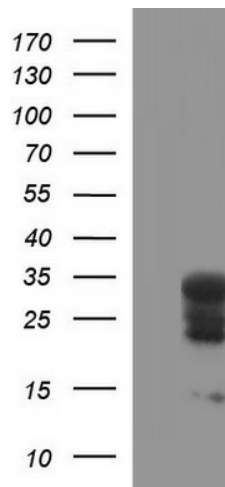
MW: 27.2 kDa

Gene Summary: This gene encodes a DnaJ-type co-chaperone and member of the heat shock cognate B (HscB) family of proteins. The encoded protein plays a role in the synthesis of iron-sulfur clusters, protein cofactors that are involved in the redox reactions of mitochondrial electron transport and other processes. Cells in which this gene is knocked down exhibit reduced activity of iron-sulfur cluster-dependent enzymes including succinate dehydrogenase and aconitase. The encoded protein may stimulate the ATPase activity of the mitochondrial stress-70 protein. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2015]

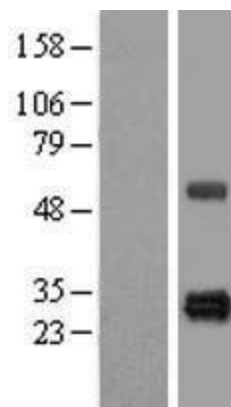
Product images:



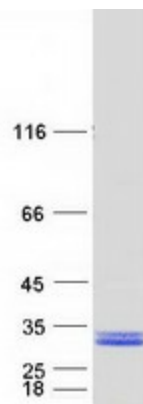
Circular map for RC200843



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY HSCB (Cat# RC200843, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-HSCB (Cat# [TA507274]). Positive lysates [LY406803] (100ug) and [LC406803] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY406803]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200843 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HSCB protein (Cat# [TP300843]). The protein was produced from HEK293T cells transfected with HSCB cDNA clone (Cat# RC200843) using MegaTran 2.0 (Cat# [TT210002]).