

## Product datasheet for **RG200843**

### HSCB (NM\_172002) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HSCB (NM_172002) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HSCB
Synonyms:	DNAJC20; HSC20; JAC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG200843 representing NM_172002 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTGGCGGGGAGACCGGGCTTTGCTCCGGGTGTGGGGTTTTGGCCGACAGGGTTCCAGAAGGA  
GACCGCTAAGCTGCGATGCTGCTCGCAGGCGGGAAGCAATTATCCCGCTGTTGGAAGTGCGGCGGCC  
ATGGGGCCCCGGGCGGAGGACAGGTTCTTCTGCCACAGTGCCGAGCGCTGCAGGCACCTGACCCACT  
CGAGACTACTTCAGCCTTATGGACTGCAACCGTTCCTTCAGAGTTGATACAGCGAAGCTCCAGCACAGGT  
ACCAGCAACTGCAGCGTCTTGTCCACCCAGATTTCTTCAGCCAGAGGTCTCAGACTGAAAAGGACTTCTC  
AGAGAAGCATTTCGACCCTGGTGAATGATGCCTATAAGACCCTCCTGGCCCCCTGAGCAGAGGACTGTAC  
CTTCTAAAGCTCCATGGAATAGAGATTCCTGAAAGGACAGATTATGAAATGGACAGGCAATTCCTCATAG  
AAATAATGGAAATCAATGAAAACTCGCAGAAGCTGAAAGTGAAGCTGCCATGAAAGAGATTGAATCCAT  
TGTCAAAGCTAACAGAAAGAAATTTACTGACAATGTGAGCAGTGCTTTTGAACAAGATGACTTTGAAGAA  
GCCAAGGAAATTTTGACAAAGATGAGATACTTTCAAATATAGAAGAAAAGATCAAGTTAAAGAAGATTC  
CCCTT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG200843 representing NM\_172002  
 Red=Cloning site Green=Tags(s)

MWRGRAGALLRVWGFWPTGVPRRRPLSCDAASQAGSNYPRCWNCGGPWPGREDRFFCPQCRLAQAPDPT  
 RDYFSLMDCNRSFRVDTAKLQHRYYQLQLVHPDFFSQRSQTEKDFSEKHSTLVNDAYKTL LAPLSRGLY  
 LLLKLGIEIPERTDYEMDRQFLIEIMEINEKLAEAESEAAMKEIESIVKAKQKEFTDNVSSAFEQDDFEE  
 AKEILTKMRYFSNIEEKIKLKKIPL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-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

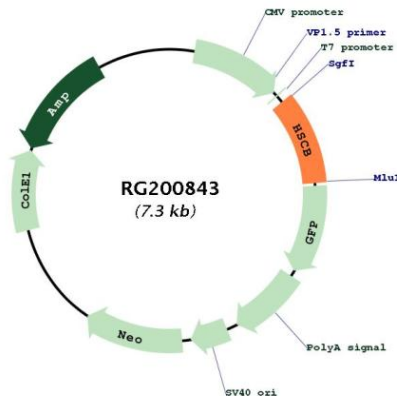
**Locus ID:** 150274

**UniProt ID:** [Q8IWL3](#)

**Cytogenetics:** 22q12.1

**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 RG200843