

Product datasheet for **MG209980**

Hspa9 (NM_010481) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hspa9 (NM_010481) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Hspa9
Synonyms:	74kDa; Csa; Grp75; Hsc74; Hsp74; Hsp74a; Hspa9a; Mortalin; Mot-2; Mot2; Mthsp70; Pbp74
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG209980 representing NM_010481
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGATAAGCGCCAGCAGAGCCGCGCGCGCTCTCGTGGGCACCGCTGCGTCCCGAGCCCGCAGCCG
 CCCGTCGCCAGGATGGCTGGAATGGCCTTAGCCATGAGGCTTTTAGATTTGTTTCAAGAAGAGATTATGC
 ATCAGAAGCAATCAAGGGTGCACTGTTGTTGATTGTTGGTACTACTAACTCCTGTGTGGCTGTTATG
 GAGGGCAAACAAGCAAAGGTCTGGAGAATGCTGAAGGTGCCAGAACTACCCCTTCTGTGGTTGCCTTTA
 CAGCAGATGGAGAACGACTTGTGGTATGCCAGCAAAACGGCAAGCTGTCACCAATCCAAACAATACCTT
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 GCTTTGTTGCGGCACATTGTCAAGGAGTTCAAGAGAGAGACAGGGGTTGATTTGACCAAAGACAACATGG
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 TTTGAAGGCATTGTCACAGATCTAATCAAGAGAAGTATTGCTCCGTGTCAGAAAGCTATGCAGGATGCAG
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 GAGAACATCAGGCAGGCAGCATCTTCCCTACAGCAGGCGTCATTGAAACTCTTCGAAATGGCGTACAAAA
 AGATGGCATCTGAACGGGAAGGTTCTGGAAGTTCTGGCACTGGGGAACAGAAGGAAGATCAGAAGGAAGA
 GAAACAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG209980 representing NM_010481
 Red=Cloning site Green=Tags(s)

MISASRAAAARLVGTAASRSPAAARPQDGWNL SHEAFRFVSRRDYASEAIKGAVVGDIDLTNSCVAVM
 EGKQAKVLENAEGARTTPSVVAF TADGERLVGMPAKRQAVTNPNTFFYATKRLIGRRYDDPEVQKDTKNV
 PFKIVRASNGDAWVEAHGKLYSPSQIGAFVLMKMKETAENYLGHAKNAVITVPAYFNDSQRQATKDAGQ
 ISGLNVLRVINEPTAAALAYGLDKSEDKVIAVYDLGGGTFDISILEIQKGVFEVKSTNGDTFLGGEDFDQ
 ALLRHIVKEFKRETGVDLTKDNMALQVRVREAAEKAKCELSSSVQTDINLPYL TMDASGPKHLNMKLTRAQ
 FEGIVTDLIKRTIAPCQKAMQDAEVSKSDIGEVLVGGMTRMPKVQQTVDLFGRAVSKAVNPDEAVAIG
 AAIQGGVLAGDVTDVLLLDVTPLSLGIETLGGVFTKLINRNTTIPTKKSQVFSTAADGQTQVEIKVCQGE
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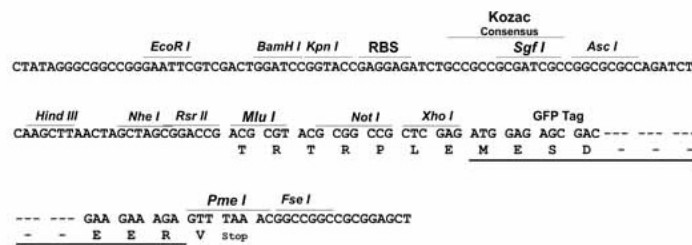
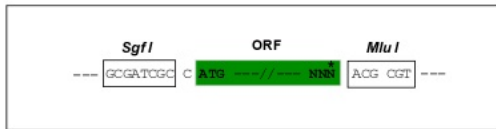
TRTRPLE - GFP Tag - V

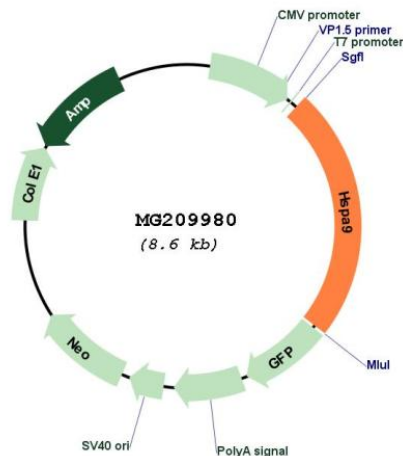
Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:


ACCN: NM_010481

ORF Size: 2037 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.

RefSeq: [NM_010481.2](#), [NP_034611.2](#)

RefSeq Size: 3067 bp

RefSeq ORF: 2040 bp

Locus ID: 15526

UniProt ID: [P38647](#)

Cytogenetics: 18 18.8 cM

Gene Summary: Chaperone protein which plays an important role in mitochondrial iron-sulfur cluster (ISC) biogenesis (PubMed:26702583). Interacts with and stabilizes ISC cluster assembly proteins FXN, NFU1, NFS1 and ISCU (By similarity). Regulates erythropoiesis via stabilization of ISC assembly (PubMed:21123823). May play a role in the control of cell proliferation and cellular aging (PubMed:8454632).[UniProtKB/Swiss-Prot Function]