

Product datasheet for **MC200205**

Hspa2 (BC004714) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hspa2 (BC004714) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Hspa2
Synonyms:	HSP70.2, MGC58299, MGC7795, HSP70A2, 70kDa
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC004714
 GAGGTCTCCGGGAGACGCTAGTCGCGCTCGTGGAGAGTTGTGAGAAGCGACCGTTGGCTCAGGTCCC
 TTGCGCTTGCCTCTCCTGACGCTTTTCGTCTAACGTTGCTTTGCCTGTTTTTTCAGTCAGGATGTCTGCC
 CGCGGCCCGGCTATCGGCATCGACTGGGACCACTTACTCGTGCCTGGGGTATTCCAACATGGCAAGG
 TGGAGATCATCGCCAACGACCAGGTAACCGCACCAACCCAGCTACGTGGCCTTCACTGACACCGAGCG
 TCTCATCGGCGACGCCCAAGAACCAAGTGGCCATGAACCCACAAACACCATCTTCGACGCCAAGCGG
 CTGATCGGACGGAAGTTCGAGGACGCCACAGTGCAGTCCGATATGAAGCACTGGCCGTTCCGAGTGGTGA
 CGGAAGGTGGGAAGCCAAAGTGCAGGTGGAATATAAAGGGGAGATGAAGACCTTCTTCCCTGAGGAGAT
 TTCTTCCATGGTCTCACTAAGATGAAGGAGATCGCCGAAGCCTACCTGGGGGGCAAGGTGCAGAGCGCA
 GTCATCACTGTTCTGCCTATTTCAACGACTCGCAGCGCCAGGCCACCAAGGATGCGGGCACCATCACCG
 GCCTCAACGTGTTGCGCATCATCAATGAGCCACAGCAGCGGCCATCGCCTATGGCTGGATAAGAAGGG
 CTGTGCGGGCGGCGAGAAGAACGTGCTCATCTTTGACCTGGGCGGGGACCTTCGATGTGTCCATCCTG
 ACCATCGAGGATGGCATCTTTGAGGTGAAGTCCACGGCCGGCGATACCCACCTGGGTGGCGAAGACTTCG
 ACAACCGTATGGTCAGCCACCTGGCGGAGGAGTTCAAGCGCAAACACAAGAAGGACATTGGGCCAACAA
 GCGCGCTGTGCGCCGGCTGCGCACCGCCTGCGAGCGCGTAAGCGCACCTGAGCTCGTCCACGCGAGGCC
 AGCATAGAGATCGACTCGCTCTACGAGGGCGTGGATTTCTACACGTCCATCACCCGCGCCGCTTCGAGG
 AGCTCAACGCGGATCTTCCGAGGGACCTGGAGCCGGTGGAAAAGGCGCTGCGCGATGCCAAGCTAGA
 CAAGGGCCAGATCCAGGAGATAGTGTGGTGGGCGGCTCAACCCGCATCCCTAAGATCCAGAAGCTCCTG
 CAAGATTTCTTCAACGGCAAGGAGCTGAACAAGAGCATTAAATCCCGACGAGGGCGGTGGCCTACGGCGCCG
 CTGTGACGAGCGGCTATCCTCATCGGCGACAAGTCGGAATGTGACGAGATCTGCTGTTACTCGACGTGAC
 TCCATTGTCGCTCGGCATCGAAACAGCTGGCGGTGTGATGACCCCACTCATCAAGAGAAACACCAGATC
 CCCACCAAGCAGACGACACCTTCACTACTACTCAGACAACAGAGCAGCGTGTGGTGAAGTGTACG
 AGGGCGAACGGCCATGACCAAGGACAATAACCTCTTGGGCAAGTTCGACCTGACTGGGATCCCCCAGC
 ACCCCGTGGGGTCCCCCAGATCGAGGTACCTTTGACATCGATGCCAACGGCATCCCTAACGTCACTGCT
 GCGGACAAGAGCACCGGTAAGAAAATAAAATCACCATAACCAACGACAAGGGTGGCTGAGCAAAGACG
 ACATTGACCGGATGGTGCAGGAGGCGGAGCGGTACAAATCGGAAGATGAAGCAAATCGCGATCGCGTGGC
 AGCCAAAATGCGGTCGAGTCTATACTACAACATCAAGCAGACCGTGGAAAGACGAGAACTGAGGGGC
 AAGATTAGCGAGCAGGACAAAACAAGATCCTCGACAAGTGTGAGGAGGTGATCAACTGGCTTGACCGAA
 ACCAGATGGCAGAGAAAGATGAGTACGAACACAAGCAGAAAGAGCTTGAGAGAGTGTGCAACCCCATCAT
 CAGCAAATTTACCAAGGCGGTCCAGGCGGCGGCGCTCCTCTGGAGGGCCACCATCGAGGAAGTGGAC
 TAGGCTTGGCTGGAGTCCGCGTAAACCTTTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTCC
 CTTTTGTTTTGTTTTCTTTAAATGTCCTTGTGCCAAGTAAGATCTATTATTGGAAGTCTTAGCCCTGGT
 GCATACATATGAAAGGAAAGGTGCAACAACCTAGTTTAGTTATAAAAGGTTAGTTCTAAAAGTTTGATT
 GGGGAAAAATGAGGTTTCTTTAATGCATTTAGAGCGATTGCTGATTTAAGCTTTTTGTTGTTGTT
 AAGCTTACGTATGTACATGGAGATTTGCTTGAAGGAGAACCTGATGCTCGCACACCTGACCTGTGGAA
 GCTTGGTTACTAAGACACAGGAAAGCTTGAATTGTTTATTTTATGACTATGAGATGAAAGTAAGCA
 CTGCAGTGATATAAAGACAGGTATATTCTGTAACACATAAATGCACATTTAAAGTAAAGCTGAAATTG
 ATCTCAA

- Restriction Sites:** RsrII-NotI
- ACCN:** BC004714
- Insert Size:** 1902 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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: [BC004714](#), [AAH04714](#)

RefSeq Size: 2568 bp

RefSeq ORF: 1902 bp

Locus ID: 15512

Cytogenetics: 12 33.73 cM

Gene Summary: Molecular chaperone implicated in a wide variety of cellular processes, including protection of the proteome from stress, folding and transport of newly synthesized polypeptides, activation of proteolysis of misfolded proteins and the formation and dissociation of protein complexes. Plays a pivotal role in the protein quality control system, ensuring the correct folding of proteins, the re-folding of misfolded proteins and controlling the targeting of proteins for subsequent degradation. This is achieved through cycles of ATP binding, ATP hydrolysis and ADP release, mediated by co-chaperones. The affinity for polypeptides is regulated by its nucleotide bound state. In the ATP-bound form, it has a low affinity for substrate proteins. However, upon hydrolysis of the ATP to ADP, it undergoes a conformational change that increases its affinity for substrate proteins. It goes through repeated cycles of ATP hydrolysis and nucleotide exchange, which permits cycles of substrate binding and release (By similarity). Plays a role in spermatogenesis (PubMed:24557841). In association with SHCBP1L may participate in the maintenance of spindle integrity during meiosis in male germ cells (PubMed:24557841).[UniProtKB/Swiss-Prot Function]