

Product datasheet for **MC204929**

Hspa2 (NM_001002012) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hspa2 (NM_001002012) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Hspa2
Synonyms:	70kDa; Hsp70-2; HSP70.2; HSP70A2
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC052350
 GGGCGGGGCTTCATTTGCATAACGGCCGCCCTTGGTCTCCCTGCCCAAGGCTGGCGTCAAGCGCCTCAC
 CCAACTAGATATCAGTTGGACCACCGGTGGTCACTCCGACCAGTCAAGATGTCTGCCCGCGGCCGGCT
 ATCGGCATCGACCTGGGCACCCTTACTCGTGCCTGGGGTATTCCAACATGGCAAGGTGGAGATCATCG
 CCAACGACCAGGTAACCGCACCACCCAGCTACGTGGCCTTCACTGACACCGAGCGTCTCATCGGCGA
 CGCCGCCAAGAACCAAGTGGCCATGAACCCACAACACCATCTTCGACGCCAAGCGGCTGATCGGACGG
 AAGTTCGAGGACGCCACAGTGCAGTCCGATATGAAGCACTGGCCGTTCCGAGTGGTGAGCGAAGGTGGGA
 AGCCCAAAGTGCAGGTGGAATATAAAGGGGAGATGAAGACCTTCTCCCTGAGGAGATTTCTCCATGGT
 CCTCACTAAGATGAAGGAGATCGCCGAAGCCTACCTGGGGGCAAGGTGCAGAGCGCAGTCACTACTGTT
 CCTGCCTATTTCAACGACTCGCAGCGCCAGGCCACCAAGGATGCGGGCACCATCACCGCCCTCAACGTGT
 TGCGCATCATCAATGAGCCACAGCAGCGGCCATCGCCTACGGCCTGGATAAGAAGGGCTGTGCGGGCGG
 CGAGAAGAACGTGCTCATCTTTGACCTGGGCGGGGGCACCTTCGATGTGTCCATCCTGACCATCGAGGAT
 GGCATCTTTGAGGTGAAGTCCACGGCCGGCGATACCCACCTGGTGGCGAAGACTTCGACAACCGTATGG
 TCAGCCACCTGGCGGAGGAGTTCAAGCGCAAACAAGAAGGACATTGGGCCAACAAAGCGCGCTGTGCG
 CCGGCTGCGCACCGCCTGCGAGCGCGCTAAGCGCACCTGAGCTGTCCACGCGAGCCAGCATAGAGATC
 GACTCGCTCTACGAGGGGTGGATTTCTACACGTCCATCACCCGCGCCCGCTTCGAGGAGCTCAACGCCG
 ATCTCTTCCGAGGGACCTTGGAGCCGGTGGAAAAGGCGCTGCGCGATGCCAAGCTAGACAAGGGCCAGAT
 CCAGGAGATAGTGTGGTGGCGGCTCAACCCGCATCCCTAAGATCCAGAAGCTCCTGCAAGATTTCTTC
 AACGGCAAGGAGCTGAACAAGAGCATTAAATCCCGACGAGCGGGTGGCCTACGGCGCCGCTGTGACGGCGG
 CTATCCTCATCGGCGACAAGTCGGAAAATGTGCAGGATCTGCTGTTACTCGACGTGACTCCATTGTGCT
 CGGCATCGAAACAGCTGGCGGTGTATGACCCACTCATCAAGAGAAACACCAGATCCCCACCAAGCAG
 ACGCAGACCTTCACTACTACTCAGACAACCAGAGCAGCGTGTGGTGAAGTGTACGAGGGCGAACGGG
 CCATGACCAAGGACAATAACCTCTTGGGCAAGTTCGACCTGACTGGGATCCCCCAGCACCCCGTGGGGT
 CCCCAGATCGAGGTCACCTTTGACATCGATGCCAACGGCATCCTTAACGTCACTGCTGCCGACAAGAGC
 ACCGGTAAAGAAAATAAAATCACCATACCAACGACAAGGGTCGGCTGAGCAAAGACGACATTGACCGGA
 TGGTGCAGGAGCGGAGCGGTACAAATCGGAAGATGAAGCAAATCGCGATCGCGTGGCAGCCAAAATGC
 GGTGGAGTCTATACCTACAACATCAAGCAGACCGTGAAGACGAGAACTGAGGGGCAAGATTAGCGAG
 CAGGACAAAACAAGATCCTCGACAAGTGTGAGGAGGTGATCACTGGCTTGACCGAAACAGATGGCAG
 AGAAAGATGAGTACGAACACAAGCAGAAAGAGCTTGAGAGAGTGTCAACCCCATCATCAGCAAACCTTA
 CCAAGGCGGTCCAGGCGGCGCGGCTCCTCTGGAGGGCCACCATCGAGGAAGTGGACTAGGCTTGGCT
 GGAGTCCGCGTAAACCTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTT
 GTTTTGGTTTCTTTAAATGTCCTTGTGCCAAGTAAAGATCTATTATTGGAAGCTTTAGCCTGGTGCATA
 CATATGAAAGGAAAGGTGCAACAACCTTAGTTTAGTTATAAAAGGTTAGTTCTAAAAGTTTGATTTGGGGG
 AAAAATGAGGTTTCTTTAATGCATTTAGAGCGATTGCTGATTTAAGCTTTTTTGTGTTGTTAAGCT
 TACGTATGTACATGGAGATTTGCTTGAAGTAGAACCTGATGCTCGCACACCTGACCTGTGGAAGCTTG
 GTTACACTAAGACACAGGAAAGCTTGAATTGTTATTTTTATGTACTATGAGATGAAAGTAAAGCACTGCA
 GTGATATTAAGACAGGTATATTCTGTAACACATAAAATGCACATTTAAAGTAAAGCTGAAATTGATCTC
 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

- Restriction Sites:** Sfil-Sfil
- ACCN:** NM_001002012
- 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:	<ol style="list-style-type: none">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:	BC052350 , AAH52350
RefSeq Size:	2550 bp
RefSeq ORF:	1902 bp
Locus ID:	15512
UniProt ID:	P17156
Cytogenetics:	12 33.73 cM
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (2) has an alternate 5' sequence and encodes the same protein, as compared to variant 1.</p>