

Anti-HSPA2 Antibody
Catalog # ABO11122**Specification****Anti-HSPA2 Antibody - Product Information**

Application	WB
Primary Accession	P54652
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Heat shock-related 70 kDa protein 2(HSPA2) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-HSPA2 Antibody - Additional Information

Gene ID 3306

Other Names

Heat shock-related 70 kDa protein 2, Heat shock 70 kDa protein 2, HSPA2

Calculated MW

70021 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Protein Name

Heat shock-related 70 kDa protein 2

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human HSPA2(580-599aa VINWLDNRNQMAEKDEYEHKQ), identical to the related mouse and rat sequences.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be

aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the heat shock protein 70 family.

Anti-HSPA2 Antibody - Protein Information

Name HSPA2

Function

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 (PubMed: [26865365](http://www.uniprot.org/citations/26865365)). Plays a role in spermatogenesis. In association with SHCBP1L may participate in the maintenance of spindle integrity during meiosis in male germ cells (By similarity).

Cellular Location

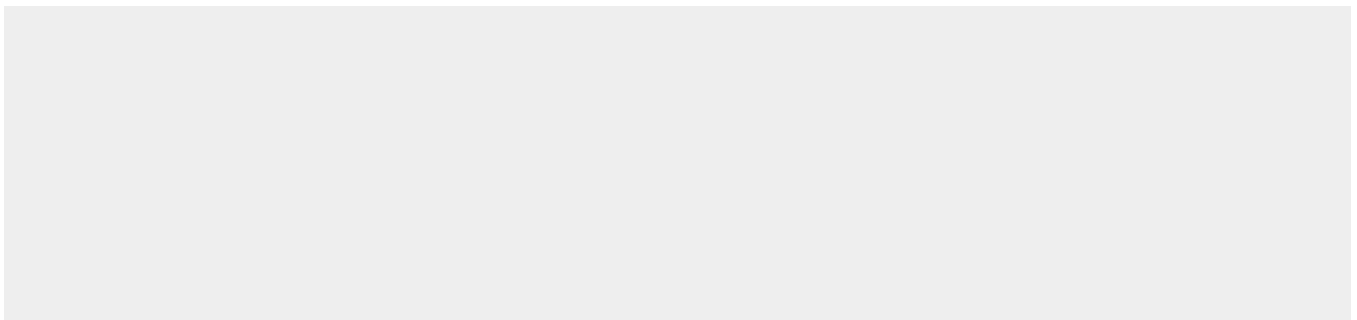
Cytoplasm, cytoskeleton, spindle {ECO:0000250|UniProtKB:P17156}. Note=Colocalizes with SHCBP1L at spindle during the meiosis process. {ECO:0000250|UniProtKB:P17156}

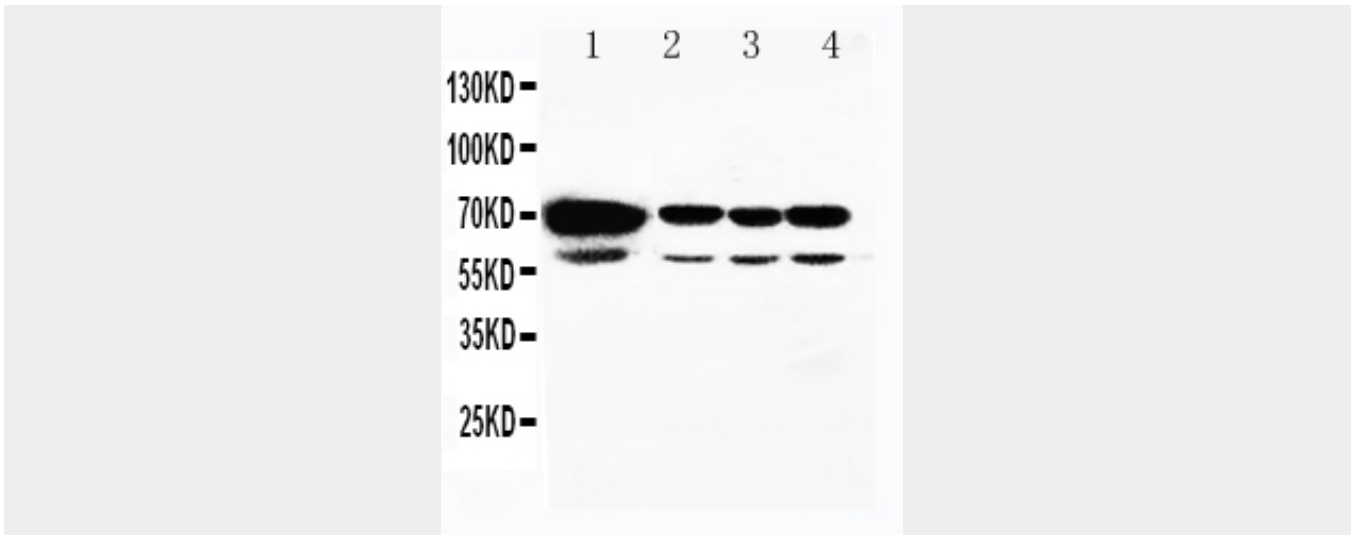
Anti-HSPA2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-HSPA2 Antibody - Images





Anti-HSPA2 antibody, ABO11122, Western blotting Lane 1: Rat Testis Tissue Lysate Lane 2: A549 Cell Lysate Lane 3: MCF-7 Cell Lysate Lane 4: HELA Cell Lysate

Anti-HSPA2 Antibody - Background

HSPA2 (heat shock 70kDa protein 2) also known as HEAT-SHOCK PROTEIN, 70-KD, 2, HSP70-2, HEAT-SHOCK PROTEIN, 70-KD, 3 or HSP70-3. Analysis of the sequence indicated that HSPA2 is the human homolog of the murine Hsp70-2 gene, with 91.7% identity in the nucleotide coding sequence and 98.2% in the corresponding amino acid sequence. HSPA2 has less amino acid homology to the other members of the human HSP70 gene family. HSPA2 is constitutively expressed in most tissues, with very high levels in testis and skeletal muscle. The HSPA2 gene is located on chromosome 14q22-q24. Immunohistochemical analysis detected weak expression of HSPA2 in spermatocytes and stronger expression in spermatids and in the tail of mature sperm. HSPA2 may be critical to sperm maturation through its role as a protein chaperone.