

**Anti-HSPA2 Picoband Antibody**  
**Catalog # ABO12325****Specification****Anti-HSPA2 Picoband Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P54652</a>
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, IHC-P in Human;Mouse;Rat.

**Reconstitution**

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

**Anti-HSPA2 Picoband 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**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat<br> <br>Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat<br>

**Protein Name**

Heat shock-related 70 kDa protein 2

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human HSPA2 (564-598aa KISEQDKNKILDKCQEVINWLDRNQMAEKDEYEHK), 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 r°Constitution,**

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.

## Anti-HSPA2 Picoband 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:<a href="http://www.uniprot.org/citations/26865365" target="\_blank">26865365</a>). 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

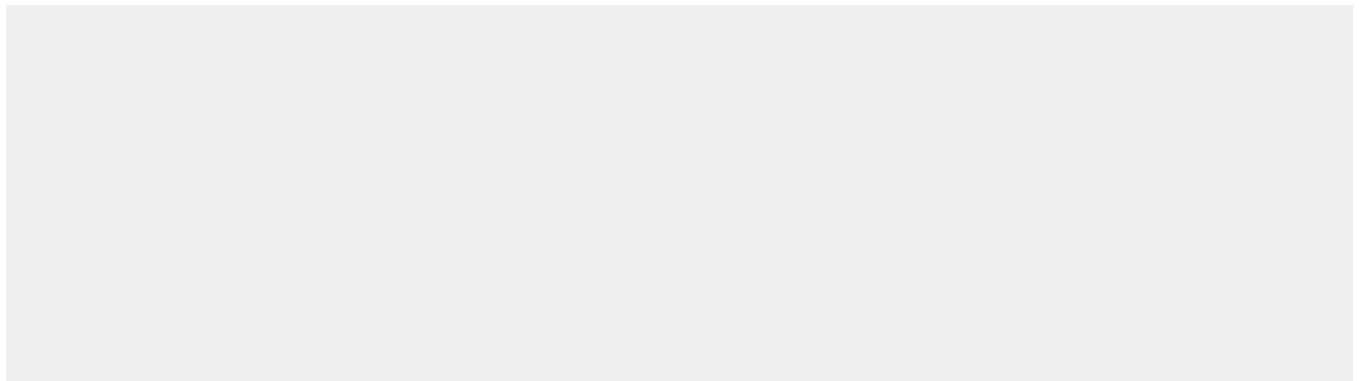
Cytoplasm, cytoskeleton, spindle {ECO:0000250|UniProtKB:P17156}. Note=Colocalizes with SHCBP1L at spindle during the meiosis process. {ECO:0000250|UniProtKB:P17156}

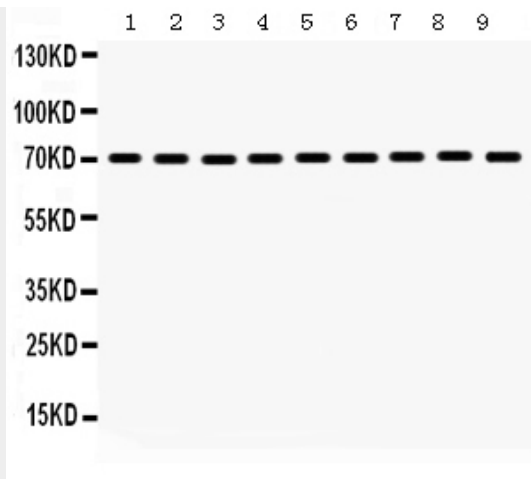
## Anti-HSPA2 Picoband Antibody - Protocols

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

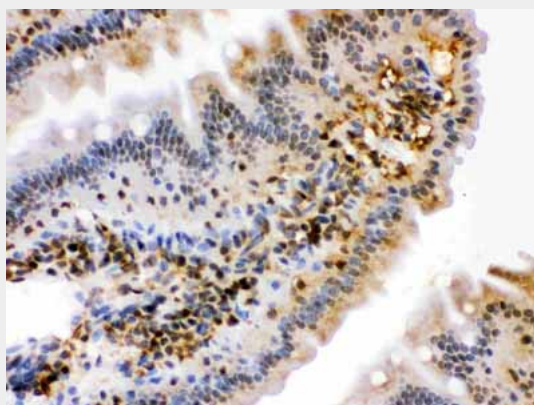
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-HSPA2 Picoband Antibody - Images

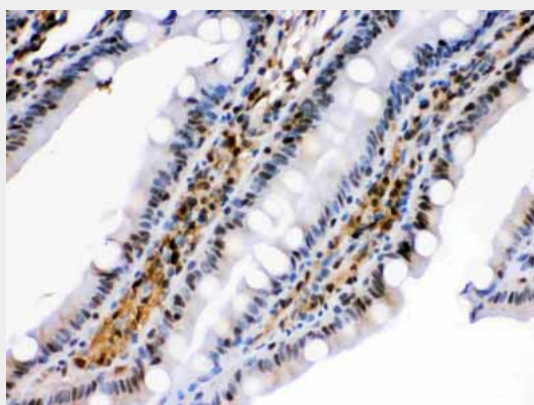




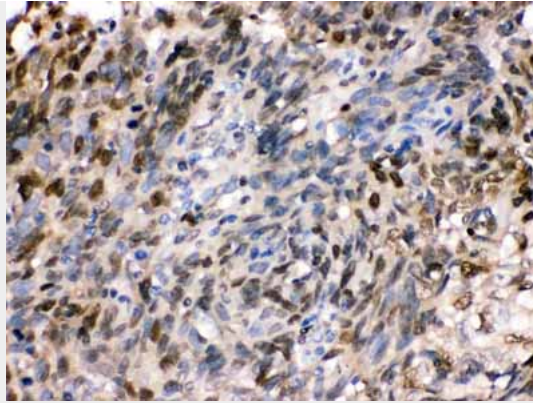
Anti- HSPA2 Picoband antibody, ABO12325, Western blotting All lanes: Anti HSPA2 (ABO12325) at 0.5ug/ml  
Lane 1: Rat Liver Tissue Lysate at 50ug  
Lane 2: Rat Thymus Tissue Lysate at 50ug  
Lane 3: Rat Testis Tissue Lysate at 50ug  
Lane 4: Mouse Liver Tissue Lysate at 50ug  
Lane 5: Mouse Kidney Tissue Lysate at 50ug  
Lane 6: HELA Whole Cell Lysate at 40ug  
Lane 7: MCF-7 Whole Cell Lysate at 40ug  
Lane 8: A375 Whole Cell Lysate at 40ug  
Lane 9: NIH3T3 Whole Cell Lysate at 40ug  
Predicted bind size: 70KD  
Observed bind size: 70KD



Anti- HSPA2 Picoband antibody, ABO12325, IHC(P) IHC(P): Mouse Intestine Tissue



Anti- HSPA2 Picoband antibody, ABO12325, IHC(P) IHC(P): Rat Intestine Tissue



Anti- HSPA2 Picoband antibody, AB012325,IHC(P)IHC(P): Human Lung Cancer Tissue

#### **Anti-HSPA2 Picoband Antibody - Background**

HSPA2 (heat shock 70kDa protein 2) is 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.