

HSPA5 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8572b

Specification

HSPA5 Antibody - Product Information

Application	WB,E
Primary Accession	P11021
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	monoclonal
Isotype	IgG1,k
Calculated MW	72333

HSPA5 Antibody - Additional Information

Gene ID 3309

Other Names

78 kDa glucose-regulated protein, GRP-78, Endoplasmic reticulum luminal Ca(2+)-binding protein grp78, Heat shock 70 kDa protein 5, Immunoglobulin heavy chain-binding protein, BiP, HSPA5, GRP78

Target/Specificity

This HSPA5 antibody is generated from a mouse immunized with a recombinant protein between 420-654 amino acids from human HSPA5.

Dilution

WB~~1:20000

Format

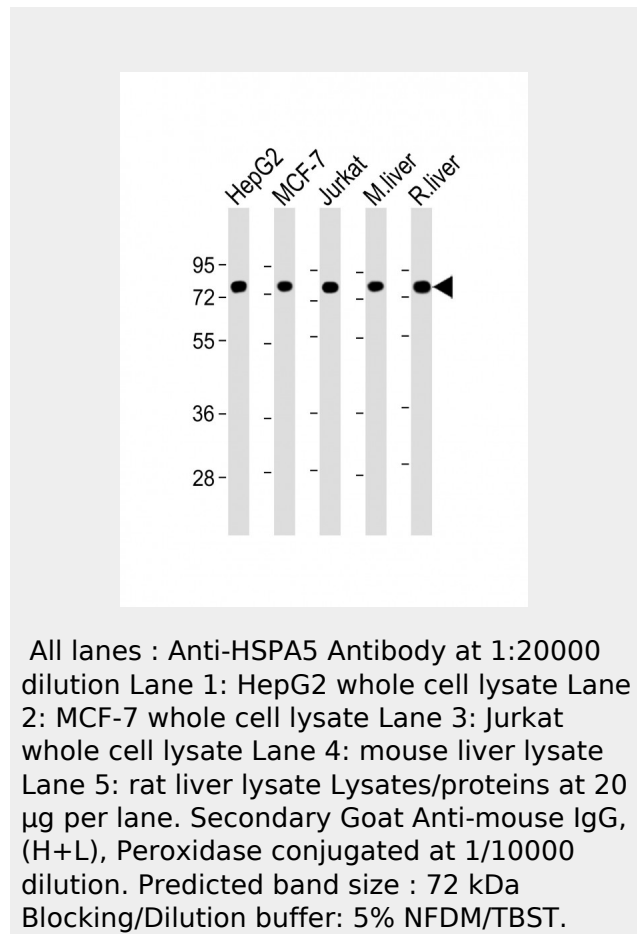
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

HSPA5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.



HSPA5 Antibody - Background

Probably plays a role in facilitating the assembly of multimeric protein complexes inside the endoplasmic reticulum. Involved in the correct folding of proteins and degradation of misfolded proteins via its interaction with DNAJC10, probably to facilitate the release of DNAJC10 from its substrate.

HSPA5 Antibody - References

Ting J.,et al.DNA 7:275-286(1988).
Chao C.C.K.,et al.Submitted (DEC-1995) to the EMBL/GenBank/DDBJ databases.
Hansen J.J.,et al.Submitted (JAN-2000) to the EMBL/GenBank/DDBJ databases.
Bermudez-Fajardo A.,et al.Submitted

HSPA5 Antibody - Protein Information**Name** HSPA5 ([HGNC:5238](#))**Function**

Endoplasmic reticulum chaperone that plays a key role in protein folding and quality control in the endoplasmic reticulum lumen (PubMed: [2294010](http://www.uniprot.org/citations/2294010) target="_blank">2294010, PubMed: [23769672](http://www.uniprot.org/citations/23769672) target="_blank">23769672, PubMed: [23990668](http://www.uniprot.org/citations/23990668) target="_blank">23990668, PubMed: [28332555](http://www.uniprot.org/citations/28332555) target="_blank">28332555). Involved in the correct folding of proteins and degradation of misfolded proteins via its interaction with DNAJC10/ERdj5, probably to facilitate the release of DNAJC10/ERdj5 from its substrate (By similarity). Acts as a key repressor of the ERN1/IRE1-mediated unfolded protein response (UPR) (PubMed: [1550958](http://www.uniprot.org/citations/1550958) target="_blank">1550958, PubMed: [19538957](http://www.uniprot.org/citations/19538957) target="_blank">19538957). In the unstressed endoplasmic reticulum, recruited by DNAJB9/ERdj4 to the luminal region of ERN1/IRE1, leading to disrupt the dimerization of ERN1/IRE1, thereby inactivating ERN1/IRE1 (By similarity). Accumulation of misfolded protein in the endoplasmic reticulum causes release of HSPA5/BiP from ERN1/IRE1, allowing homodimerization and subsequent activation of ERN1/IRE1 (By similarity). Plays an auxiliary role in post-translational transport of small presecretory proteins across endoplasmic reticulum (ER). May function as an allosteric modulator for SEC61 channel-forming translocon complex, likely cooperating with SEC62 to enable the productive insertion of these precursors into SEC61 channel. Appears to specifically regulate translocation of precursors having inhibitory residues in their mature region that weaken channel gating. May also play a role in apoptosis and cell proliferation (PubMed: [1550958](http://www.uniprot.org/citations/1550958) target="_blank">1550958, PubMed: [19538957](http://www.uniprot.org/citations/19538957) target="_blank">19538957).

(DEC-1999) to the EMBL/GenBank/DDBJ databases.

Humphray S.J., et al. Nature 429:369-374(2004).

itations/26045166"
target="_blank">26045166).

Cellular Location

Endoplasmic reticulum lumen. Melanosome.
Cytoplasm
{ECO:0000250|UniProtKB:P20029}. Cell
surface. Note=Identified by mass
spectrometry in melanosome fractions from
stage I to stage IV

HSPA5 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](#)