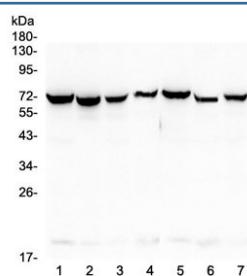


HSP70 Antibody / HSPA1A / HSPA1B [clone 3H5] (RQ4486)

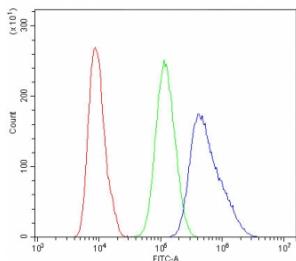
Catalog No.	Formulation	Size
RQ4486	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

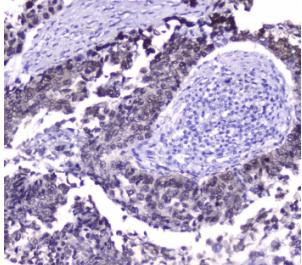
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1
Clone Name	3H5
Purity	Protein G affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P0DMV8
Localization	Cytoplasm
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml Flow Cytometry : 1-3ug/10 ⁶ cells Immunofluorescence : 2-4ug/ml
Limitations	This HSP70 antibody is available for research use only.



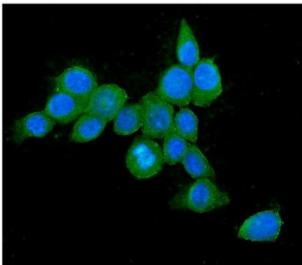
Western blot testing of human 1) HeLa, 2) COLO-320, 3) SW620, 4) A431, 5) A549, 6) HepG2 and 7) PANC-1 lysate with HSP70 antibody at 0.5ug/ml. Expected molecular weight ~70 kDa.



Flow cytometry testing of human U-2 OS cells with HSP70 antibody at 1ug/10⁶ cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= HSP70 antibody.



IHC testing of FFPE human lung cancer with HSP70 antibody at 2ug/ml. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 10-20 min followed by cooling at RT for 20 min.



Immunofluorescent staining of FFPE human MCF7 cells with HSP70 antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.

Description

HSPA1 (Heat Shock 70kDa Protein 1A) also known as HSP70-1, HSPA1A, HSP70-1A, HSP72 or HSP70I, is a protein that in humans is encoded by the HSPA1A gene. This intronless gene encodes a 70kDa heat shock protein which is a member of the heat shock protein 70 family. The HSPA1A gene encodes a predicted 641-amino acid protein. The HSPA1 gene is mapped on 6p21.33. Shimizu et al. (1999) found that peripheral blood mononuclear cells of 18 major depression patients expressed a short HSPA1A transcript that utilized exon 1 rather than exon 2, which is found in the more common HSPA1A transcript. No protein was associated with expression of this short HSPA1A mRNA, possibly due to lack of a TATA box or loss of internal ribosome binding sites. Treatment with BGP-15, a pharmacologic inducer of Hsp72 that can protect against obesity-induced insulin resistance, improved muscular architecture, strength, and contractile function in severely affected diaphragm muscles in mdx dystrophic mice.

Application Notes

Optimal dilution of the HSP70 antibody should be determined by the researcher.

Immunogen

Amino acids KGKISEADKKVLDKCQEVISWLDANTLAEKDFEHKR were used as the immunogen for the HSP70 antibody. This sequence is common to HSPA1A and HSPA1B.

Storage

After reconstitution, the HSP70 antibody can be stored for up to one month at 4°C. For long-term, aliquot and store at -20°C. Avoid repeated freezing and thawing.

