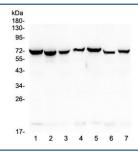


# HSP70 Antibody / HSPA1A / HSPA1B [clone 3H5] (RQ4486)

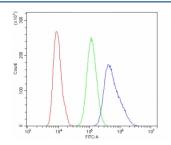
Catalog No.	Formulation	Size
RQ4486	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

## **Bulk quote request**

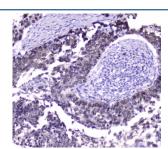
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1
Clone Name	3H5
Purity	Protein G affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P0DMV8
Localization	Cytoplasm
Applications	Western Blot : 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.



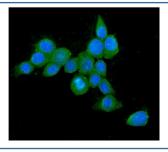
Western blot testing of human 1) HeLa, 2) COLO-320, 3) SW620, 4) A431, 5) A549, 6) HepG2 and 7) PANC-1 lysate with HSP70 antibody at 0.5ug/ml. Expected molecular weight ~70 kDa.



Flow cytometry testing of human U-2 OS cells with HSP70 antibody at 1ug/10^6 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 KGKISEADKKKVLDKCQEVISWLDANTLAEKDEFEHKR 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 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.