

For Research Use Only

# HSP70 Polyclonal antibody

Catalog Number:10995-1-AP

Featured Product

343 Publications



## Basic Information

### Catalog Number:

10995-1-AP

### Size:

150ul , Concentration: 750 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG1446

### GenBank Accession Number:

BC009322

### GeneID (NCBI):

3303

### UNIPROT ID:

PODMV8

### Full Name:

heat shock 70kDa protein 1A

### Calculated MW:

70 kDa

### Observed MW:

66-70 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:5000-1:50000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:200-1:2000

IF/ICC: 1:200-1:800

FC (Intra): 0.25 ug per 10<sup>6</sup> cells in a 100 µl suspension

## Applications

### Tested Applications:

WB, IHC, IF/ICC, FC (Intra), IP, ELISA

### Cited Applications:

WB, IHC, IF, IP, CoIP, ELISA

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat, rabbit, chicken, zebrafish, sheep, goat, ostrich, oyster

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

**WB**: A431 cells, human urine exosomes tissue, A549 cells, HeLa cells, Jurkat cells, mouse brain, HEK-293 cells, mouse kidney, rat kidney

**IP**: mouse brain tissue,

**IHC**: human breast cancer tissue, human liver cancer tissue, human normal colon, mouse skin tissue

**IF/ICC**: HeLa cells, HepG2 cells

**FC (Intra)**: HeLa cells,

## Background Information

HSPA1A, collectively known as HSP70 (also referred to HSP72), is a stress-inducible member of heat-shock protein 70 (HSP70) proteins which are highly conserved chaperons implicated in protein folding, protein refolding, protein transport, and protein targeting. Encoded by two closely linked, intronless and stress-inducible genes, HSPA1A and HSPA1B differ by only two amino acids and are believed to be fully interchangeable proteins. HSPA1A is a cytosol/nuclear protein able to translocate between cytoplasm and nucleus. Generally, HSPA1A is thought to be expressed in unstressed normal cells at low or undetectable levels. Expression of HSPA1A protein can be highly activated by various stressful stimuli. Significant up-regulation of HSPA1A has been found in various tumors. Recently it has been reported that HSPA1A can be constitutively expressed in selected cell types. HSP70 is a useful marker for exosome. This antibody well recognized the endogenous HSP70 protein in multiple cell lines. (21373891)

## Notable Publications

Author	Pubmed ID	Journal	Application
Lihua Luo	34593005	J Nanobiotechnology	WB
Yi Ma	33000559	Andrology	WB
Zundong Liu	34556812	Oncogene	WB

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

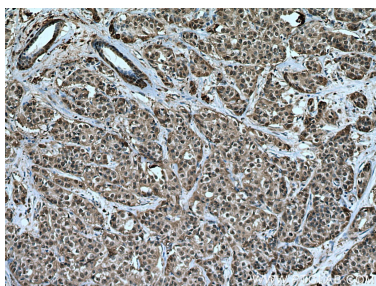
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

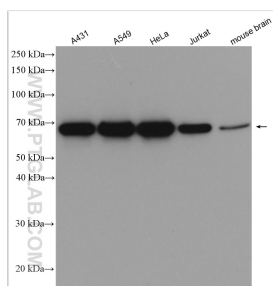
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

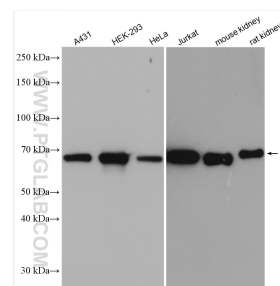
## Selected Validation Data



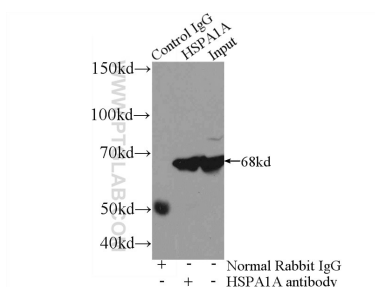
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 10995-1-AP (HSP70 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



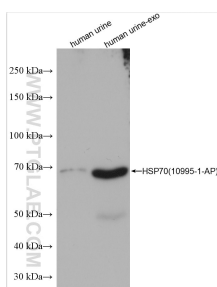
Various lysates were subjected to SDS PAGE followed by western blot with 10995-1-AP (HSP70 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



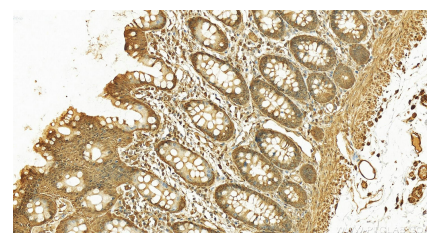
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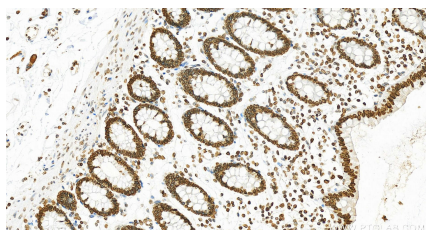
IP result of anti-HSP70 (IP:10995-1-AP, 3ug; Detection:10995-1-AP 1:1000) with mouse brain tissue lysate 3600ug.



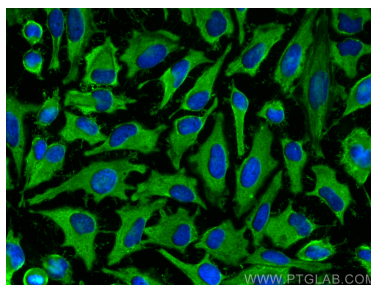
human urine exosomes tissue were subjected to SDS PAGE followed by western blot with 10995-1-AP (HSP70 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



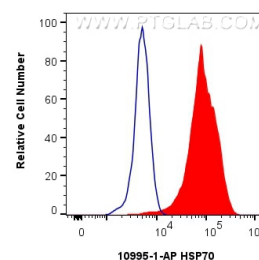
Immunohistochemical analysis of paraffin-embedded human normal colon slide using 10995-1-AP (HSP70 antibody) at dilution of 1:2000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human normal colon slide using 10995-1-AP (HSP70 antibody) at dilution of 1:2000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Methanol) fixed HeLa cells using HSP70 antibody (10995-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



$1 \times 10^6$  HeLa cells were intracellularly stained with 0.25 ug HSP70 Polyclonal antibody (10995-1-AP) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.25 ug rabbit IgG isotype control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer.