

For Research Use Only

HSP70 Polyclonal antibody

Catalog Number: 10995-1-AP **67 Publications**



Basic Information

Catalog Number: 10995-1-AP	GenBank Accession Number: BC009322	Purification Method: Antigen affinity purification
Size: 150UL, Concentration: 327 µg/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 3303	Recommended Dilutions: WB 1:2000-1:10000 IP 0.5-4.0 ug for IP and 1:500-1:2000 for WB
Source: Rabbit	Full Name: heat shock 70kDa protein 1A	IHC 1:50-1:500 IF 1:50-1:500
Isotype: IgG	Calculated MW: 70 kDa	
Immunogen Catalog Number: AG1446	Observed MW: 66-70 kDa	

Applications

Tested Applications: FC, IF, IHC, IP, WB, ELISA	Positive Controls:
Cited Applications: CoIP, IF, IHC, WB	WB: HeLa cells, multi-cells/tissue, mouse kidney tissue, mouse uterus tissue, rat brain tissue
Species Specificity: human, mouse, rat	IP: mouse brain tissue,
Cited Species: bovine, human, mouse, oyster, rat	IHC: human breast cancer tissue, human liver cancer tissue, mouse skin tissue
Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0	IF: HeLa cells, HepG2 cells

Background Information

HSPA1A, collectively known as HSP70 (also referred to as 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
Yi Ma	33000559	Andrology	WB
Yuehong Wang	32918657	Cardiovasc Drugs Ther	WB
Wenjing Wang	31512144	J Neurovirol	WB

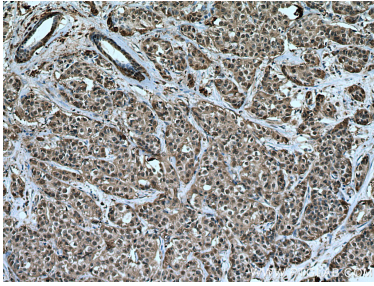
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

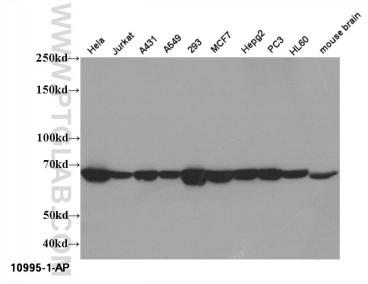
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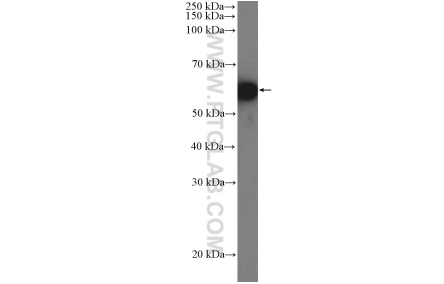
Selected Validation Data



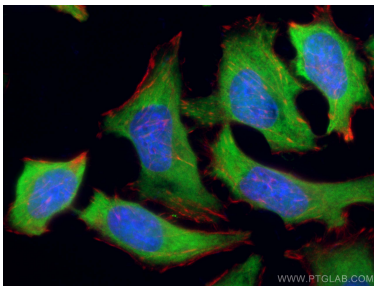
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 10995-1-AP (HSP70 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



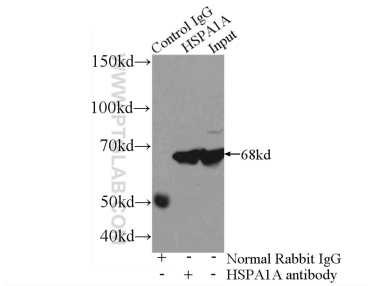
WB result of 10995-1-AP (HSPA1A antibody).



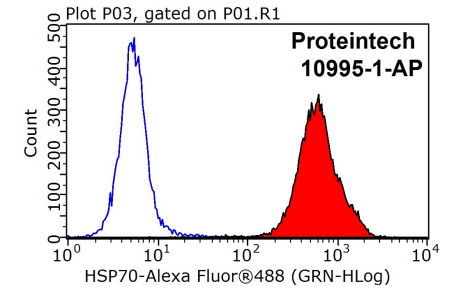
HeLa cells were subjected to SDS PAGE followed by western blot with 10995-1-AP (HSP70 Antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using 10995-1-AP (HSP70 antibody), at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L). F-actin was stained with CL594-phalloidin.



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



1X10⁶ HepG2 cells were stained with 0.2ug HSP70 antibody (10995-1-AP, red) and control antibody (blue). Fixed with 90% MeOH blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1000.