

For Research Use Only

HSP70 Monoclonal antibody

Catalog Number: 66183-1-Ig **21 Publications**



Basic Information

Catalog Number: 66183-1-Ig	GenBank Accession Number: BC009322	Purification Method: Protein G purification
Size: 150ul , Concentration: 1000 µg/ml by Nanodrop;	GeneID (NCBI): 3303	CloneNo.: 4E7E5
Source: Mouse	Full Name: heat shock 70kDa protein 1A	Recommended Dilutions: WB 1:2000-1:40000 IHC 1:50-1:500 IF 1:20-1:200
Isotype: IgG1	Calculated MW: 70 kDa	
Immunogen Catalog Number: AG19111	Observed MW: 65-70 kDa	

Applications

Tested Applications: FC, IF, IHC, WB, ELISA	Positive Controls: WB : HeLa cells, Recombinant protein protein, HEK-293 cells, whole yeast cells IHC : human breast cancer tissue, IF : HEK-293 cells,
Cited Applications: CoIP, ELISA, IF, IHC, WB	
Species Specificity: human, yeast, mouse, rat	
Cited Species: human, rat, mouse	

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

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 also used as exosomal marker. This antibody well recognized the endogenous HSP70 protein in multiple cell lines. (21373891)

Notable Publications

Author	Pubmed ID	Journal	Application
Xuan Wang	36167857	Nat Commun	WB
Yunfei Chen	32966240	Aging (Albany NY)	WB
Liping Li	31492158	BMC Cancer	WB

Storage

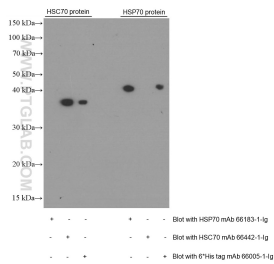
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

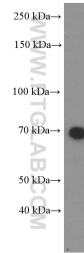
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
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This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

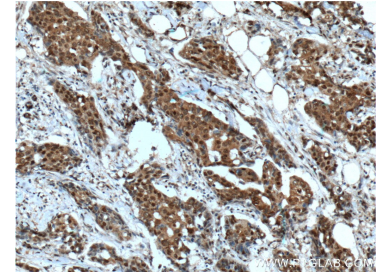
Selected Validation Data



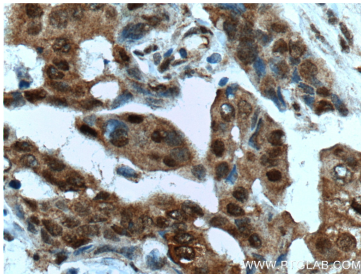
6*His tagged-recombinant HSP70 (291-641 aa) and HSC70 (346-646 aa) proteins were subjected to SDS PAGE followed by western blot with 66183-1-Ig (HSP70 antibody), 66442-1-Ig (HSC70 antibody), and 66005-1-Ig (His antibody), respectively, at dilution of 1:50000, incubated at room temperature for 1.5 hours.



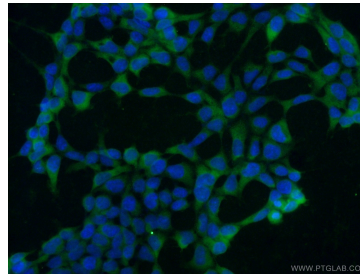
HeLa cells were subjected to SDS PAGE followed by western blot with 66183-1-Ig (HSP70 Antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



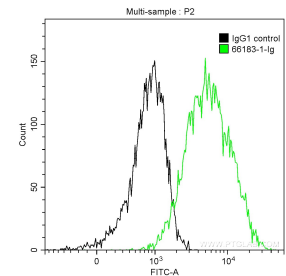
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 66183-1-Ig (HSP70 Antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 66183-1-Ig (HSP70 Antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed HEK-293 cells using 66183-1-Ig(HSP70 antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



1×10^6 HeLa cells were intracellularly stained with 0.2 ug Anti-Human HSP70 (66183-1-Ig, Clone:4E7E5) and CoraLite@488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (green), and 0.2 ug Mouse IgG1 Isotype Control (66360-1-Ig, Clone: T1F8D3F10) (black). Cells were fixed with 4% PFA and permeabilized with 0.1% TritonX-100.