Product Datasheet

Hsp70 Rabbit mAb

Catalog No: #48597

Package Size: #48597-1 50ul #48597-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

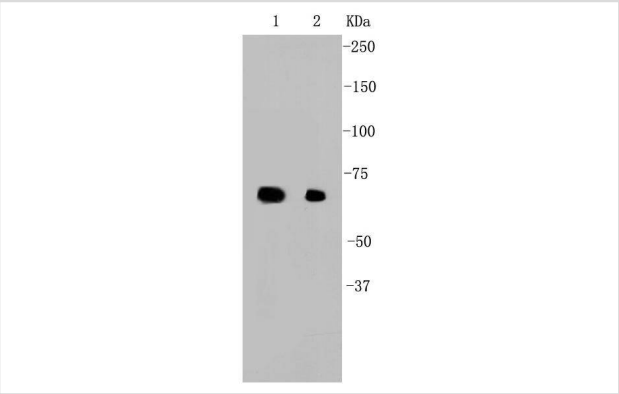
Description

Product Name	Hsp70 Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	SA0379
Purification	ProA affinity purified
Applications	WB, ICC/IF, IHC, FC
Species Reactivity	Hu, Ms, Rt
Immunogen Description	recombinant protein
Other Names	DnaK type molecular chaperone HSP70 1 antibody Epididymis secretory protein Li 103 antibody FLJ54303 antibody FLJ54370 antibody FLJ54392 antibody FLJ54408 antibody FLJ75127 antibody Heat shock 70 kDa protein 1 antibody Heat shock 70 kDa protein 1/2 antibody Heat shock 70 kDa protein 1A/1B antibody Heat shock 70kDa protein 1A antibody Heat shock 70kDa protein 1B antibody Heat shock induced protein antibody HEL S 103 antibody HSP70 1 antibody HSP70 1B antibody HSP70 2 antibody HSP70-1/HSP70-2 antibody HSP70-1A antibody HSP70.1 antibody HSP70.1/HSP70.2 antibody HSP70I antibody HSP71_HUMAN antibody HSP72 antibody HSPA1 antibody HSPA1A antibody HSPA1B antibody
Accession No.	Swiss-Prot#:P0DMV9
Calculated MW	70 kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

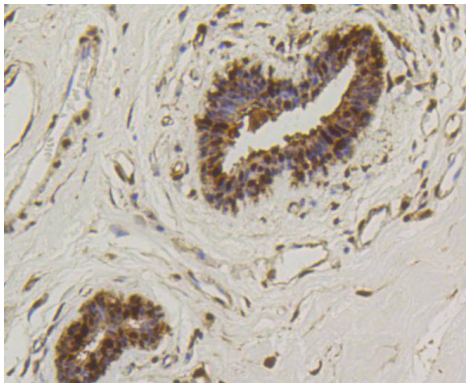
Application Details

WB: 1:1,000-5,000IHC: 1:50-1:200 ICC: 1:50-1:200FC: 1:10-1:100

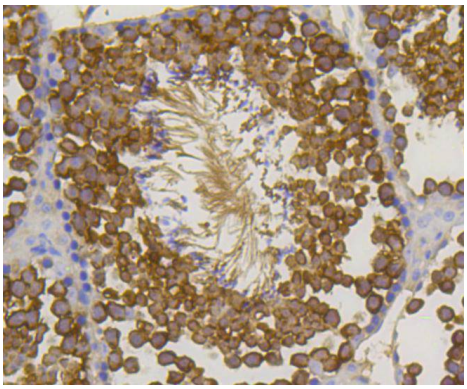
Images



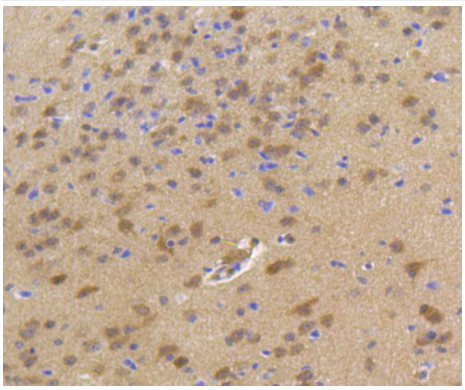
Western blot analysis of Hsp70 on different cell lysates using anti-Hsp70 antibody at 1/1,000 dilution. Positive control:
Lane 1: MCF-7 Lane 2: HCT116



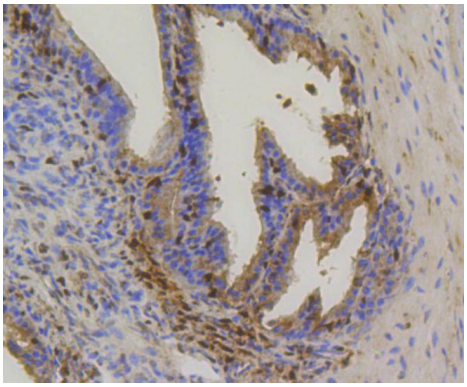
Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using anti-Hsp70 antibody. Counter stained with hematoxylin.



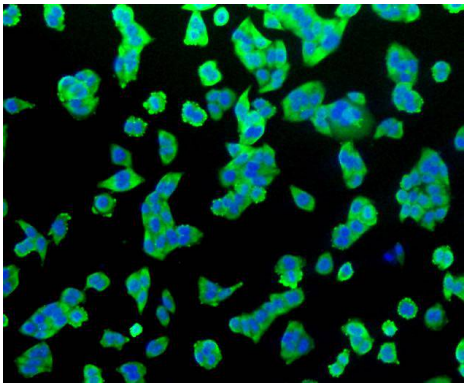
Immunohistochemical analysis of paraffin-embedded mouse testis tissue using anti-Hsp70 antibody. Counter stained with hematoxylin.



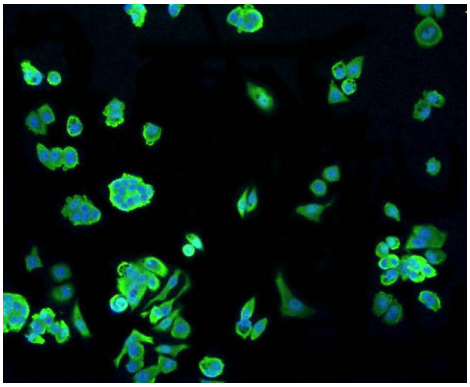
Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti-Hsp70 antibody. Counter stained with hematoxylin.



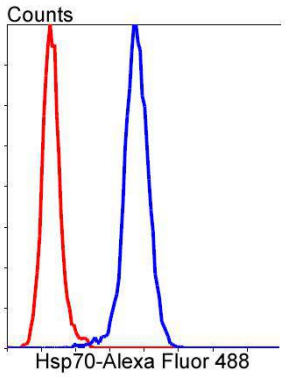
Immunohistochemical analysis of paraffin-embedded mouse prostate tissue using anti-Hsp70 antibody. Counter stained with hematoxylin.



ICC staining Hsp70 in Hela cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



ICC staining Hsp70 in MCF-7 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



Flow cytometric analysis of Hela cells with Hsp70 antibody at 1/50 dilution (blue) compared with an unlabelled control (cells without incubation with primary antibody; red). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody

Background

The 70 kilodalton heat shock proteins (Hsp70s) are a family of conserved ubiquitously expressedheat shock proteins. Proteins with similar structure exist in virtually all living organisms. The Hsp70s are an important part of the cell's machinery for protein folding, and help to protect cells from stress. When not interacting with a substrate peptide, Hsp70 is usually in an ATP bound state. Hsp70 by itself is characterized by a very weak ATPase activity, such that spontaneous hydrolysis will not occur for many minutes. As newly synthesized proteins emerge from the ribosomes, the substrate binding domain of Hsp70 recognizes sequences of hydrophobic amino acid residues, and interacts with them. This spontaneous interaction is reversible, and in the ATP bound state Hsp70 may relatively freely bind and release peptides. However, the presence of a peptide in the binding domain stimulates the ATPase activity of Hsp70, increasing its normally slow rate of ATP hydrolysis.

References

1. "The disordered amino-terminus of SIMPL interacts with members of the 70-kDa heat-shock protein family." Haag Breese E., Uversky V.N., Georgiadis M.M., Harrington M.A.DNA Cell Biol. 25:704-714(2006) 2. "Hsp70 interacts with the retroviral restriction factor TRIM5alpha and assists the folding of TRIM5alpha." Hwang C.Y., Holl J., Rajan D., Lee Y., Kim S., Um M., Kwon K.S., Song B. J. Biol. Chem. 285:7827-7837(2010)

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Note: This product is for in vitro research use only and is not intended for use in humans or animals.