Datasheet for ABIN2485870

anti-HSP70 antibody (HRP)

5 Images

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Overview

Quantity:	200 µg
Target:	HSP70
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This HSP70 antibody is conjugated to HRP
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA, Immunofluorescence (IF), Immunocytochemistry (ICC), Flow Cytometry (FACS), Antibody Array (AA), Immunoelectron Microscopy (IEM), BioImaging (BI)

Product Details

Immunogen:	Human HSP70
Clone:	C92F3A-5
Isotype:	IgG1
Specificity:	Detects ~70 kDa. Does not cross-react with HSC70 (HSP73).
Cross-Reactivity:	C. elegans, Carp, Chicken, Cow, Dog, Drosophila melanogaster, Guinea Pig, Hamster, Human, Monkey, Mouse, Pig, Rabbit, Rat, Sheep
Purification:	Protein G Purified

Target Details

Target:	HSP70

Target Details

Alternative Name:	HSP70 (HSP70 Products)
Background:	HSP70 genes encode abundant heat-inducible 70- kDa HSPs (HSP70s). In most eukaryotes HSP70 genes exist as part of a multigene family. They are found in most cellular compartments of eukaryotes including nuclei, mitochondria, chloroplasts, the endoplasmic reticulum and the cytosol, as well as in bacteria. The genes show a high degree of conservation, having at least 50 % identity (2). The N-terminal two thirds of HSP70s are more conserved than the C-terminal third. HSP70 binds ATP with high affinity and possesses a weak ATPase activity which can be stimulated by binding to unfolded proteins and synthetic peptides (3). When HSC70 (constitutively expressed) present in mammalian cells was truncated, ATP binding activity was found to reside in an N-terminal fragment of 44 kDa which lacked peptide binding capacity. Polypeptide binding ability therefore resided within the C-terminal half (4). The structure of this ATP binding domain displays multiple features of nucleotide binding proteins (5). All HSP70s, regardless of location, bind proteins, particularly unfolded ones. The molecular chaperones of the HSP70 family recognize and bind to nascent polypeptide chains as well as partially folded intermediates of proteins preventing their aggregation and misfolding. The binding of ATP triggers a critical conformational change leading to the release of the bound substrate protein (6). The universal ability of HSP70s to undergo cycles of binding to and release from hydrophobic stretches of partially unfolded proteins determines their role in a great variety of vital intracellular functions such as protein synthesis, protein folding and oligomerization and protein transport. For more information visit our HSP70 Scientific Resource Guide at http://www.HSP70.com.
Gene ID:	3303
NCBI Accession:	NP_005336
UniProt:	P0DMV8, P0DMV9

Application Details

Application Notes:	• WB (1:1000) • IHC (1:10000) • ICC/IF (1:1000) • FACS (1:1000) • optimal dilutions for assays should be determined by the user.
Comment:	1 µg/ml of ABIN2485870 was sufficient for detection of HSP70 in 20 µg of heat shocked HeLa cell lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

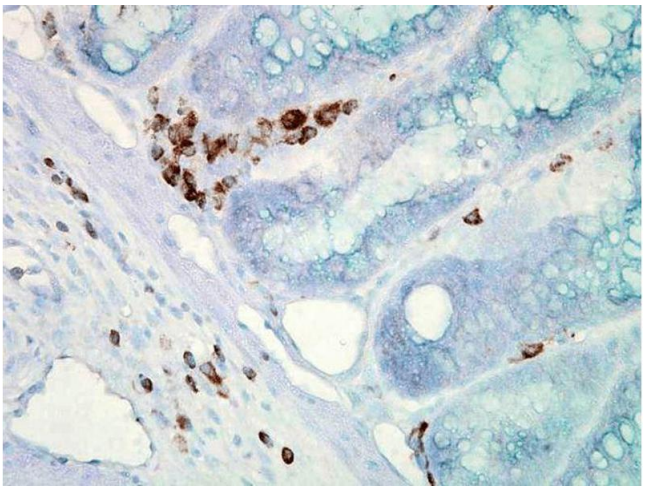
Application Details

Restrictions:	For Research Use only

Handling

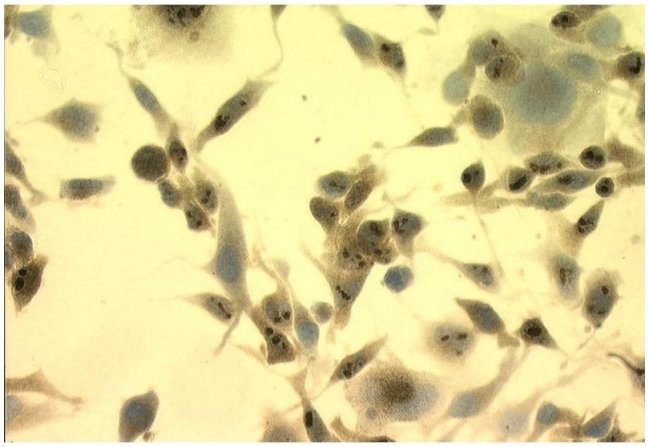
Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.1 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Conjugated antibodies should be stored at 4°C

Images



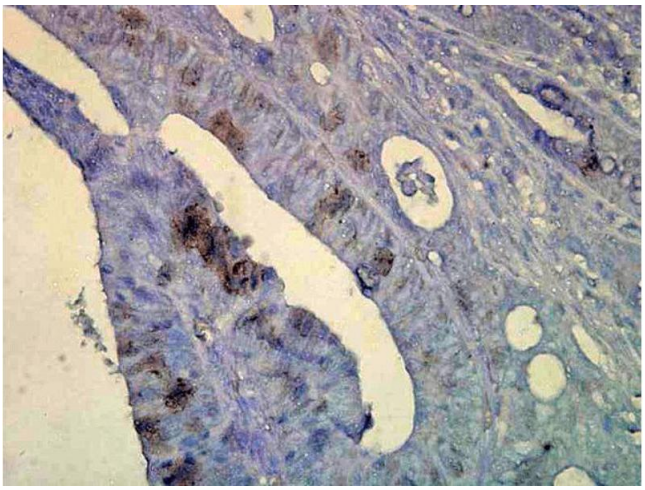
Immunohistochemistry

Image 1. Immunohistochemistry analysis using Mouse Anti-Hsp70 Monoclonal Antibody, Clone C92 . Tissue: colon carcinoma. Species: Mouse. Fixation: Formalin. Primary Antibody: Mouse Anti-Hsp70 Monoclonal Antibody at 1:10000 for 12 hours at 4°C. Secondary Antibody: Biotin Goat Anti-Mouse at 1:2000 for 1 hour at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 200 µl for 2 minutes at RT. Localization: Inflammatory cells. Magnification: 40x.



Immunofluorescence (fixed cells)

Image 2. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Hsp70 Monoclonal Antibody, Clone C92 . Tissue: Heat Shocked Melanoma cells. Species: Mouse. Fixation: Formalin. Primary Antibody: Mouse Anti-Hsp70 Monoclonal Antibody at 1:1000 for 16 hours at RT. Secondary Antibody: Biotin Goat Anti-Mouse. Courtesy of: Dr. Ewa Malusecka, Maria Sklodowska-Curie Memorial Cancer Centre and Inst. Of Oncology, Poland.



Immunohistochemistry

Image 3. Immunohistochemistry analysis using Mouse Anti-Hsp70 Monoclonal Antibody, Clone C92 . Tissue: colon carcinoma. Species: Human. Fixation: Formalin. Primary Antibody: Mouse Anti-Hsp70 Monoclonal Antibody at 1:10000 for 12 hours at 4°C. Secondary Antibody: Biotin Goat Anti-Mouse at 1:2000 for 1 hour at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 200 µl for 2 minutes at RT. Localization: Inflammatory cells. Magnification: 40x.

Please check the product details page for more images. Overall 5 images are available for ABIN2485870.