

Datasheet for ABIN2481616

anti-HSP70/HSC70 antibody (Atto 594)

6 Images



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Overview

Quantity:	200 µg
Target:	HSP70/HSC70 (HSC70-4)
Reactivity:	Chicken
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This HSP70/HSC70 antibody is conjugated to Atto 594
Application:	Western Blotting (WB), Immunoprecipitation (IP), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Immunofluorescence (IF)

Product Details

Immunogen:	Chicken HSP70/HSP90 complex
Clone:	BB70
Isotype:	IgG2a
Specificity:	Detects ~72 (HSP) and ~73 kDa (HSC).
Cross-Reactivity:	Beluga, Chicken, Cow, Dog, Drosophila melanogaster, Fish, Guinea Pig, Hamster, Human, Mouse, Pig, Rabbit, Rat, Saccharomyces cerevisiae, Sheep, Xenopus laevis
Purification:	Protein G Purified

Target Details

Target:	HSP70/HSC70 (HSC70-4)
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Target Details

Alternative Name: HSP70/HSC70 ([HSC70-4 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: 423504

NCBI Accession: [NP_001006686](#)

UniProt: [P08106](#)

Application Details

Application Notes:

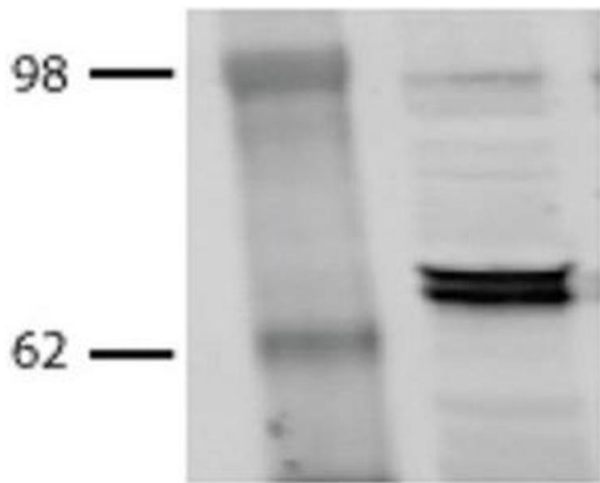
- WB (1:1000)
- IHC (1:200)
- ICC/IF (1:200)
- optimal dilutions for assays should be determined by the user.

Comment: 1 µg/ml of ABIN2481616 was sufficient for detection of HSP70 and HSC70 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 7.2, 50 % glycerol, 0.09 % 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

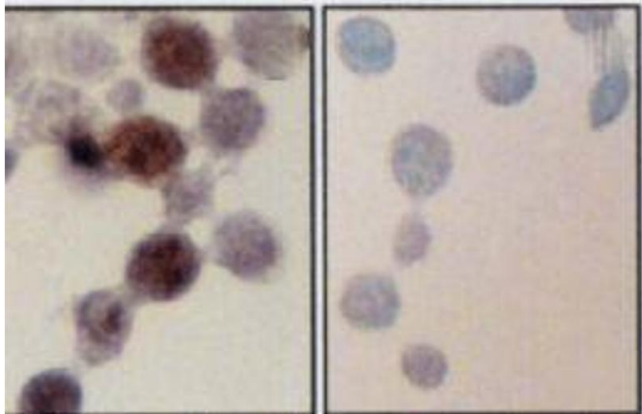
Images



Western Blotting

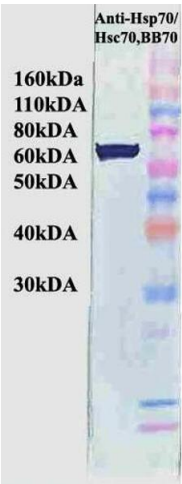
Image 1. Western Blot analysis of Bovine MDBK cell lysates showing detection of Hsp70 protein using Mouse Anti-Hsp70 Monoclonal Antibody, Clone BB70 . Primary Antibody: Mouse Anti-Hsp70 Monoclonal Antibody at 1:1000.

Nuclear smears



Immunofluorescence (fixed cells)

Image 2. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Hsp70 Monoclonal Antibody, Clone BB70 . Tissue: hepatocyte nuclei. Species: Rat. Primary Antibody: Mouse Anti-Hsp70 Monoclonal Antibody at 1:200. Courtesy of: G. Matic, University of Belgrade, Serbia.



Western Blotting

Image 3. Western Blot analysis of Human HeLa cell lysates showing detection of Hsp70 protein using Mouse Anti-Hsp70 Monoclonal Antibody, Clone BB70 . Primary Antibody: Mouse Anti-Hsp70 Monoclonal Antibody at 1:1000. Secondary Antibody: HRP Goat Anti-Rat.

Please check the [product details page](#) for more images. Overall 6 images are available for ABIN2481616.