

HSP70 (Crab) Antibody

Catalog # ASM10475

Specification

HSP70 (Crab) Antibody - Product Information

Application WB
Primary Accession [B3VKG9](#)
Other Accession [AFX62578](#)
Host Rabbit
Reactivity Crab
Clonality Polyclonal
Description
 Rabbit Anti-Crab HSP70 (Crab) Polyclonal

Target/Specificity

Detects ~ 70kDa.

Other Names

HSP70 1 Antibody, HSP70 2 Antibody,
 HSP70.1 Antibody, HSP72 Antibody, HSPA1
 Antibody, HSPA1A Antibody, HSPA1B
 Antibody

Immunogen

Crab protein peptide: NDQGNRTTPSYVA,
 100% identical to a wide variety of species
 including Mouse, Rat, Drosophila, Rice,
 Arabidopsis, Bovine, Nematode, Bonobos.

Purification

Protein A Purified

Storage -20°C

Storage Buffer

1X PBS pH7.4, 50% glycerol, 0.09% sodium azide

Shipping Blue Ice or 4°C
Temperature

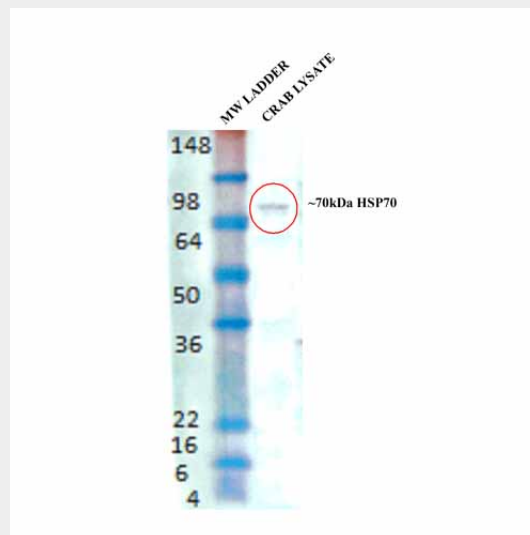
Certificate of Analysis

1 µg/ml of SPC-318 was sufficient for
 detection of HSP70 in 20 µg of crab muscle
 lysate by colorimetric immunoblot analysis
 using Goat anti-rabbit IgG:HRP as the
 secondary antibody.

Cellular Localization

Cytoplasm

HSP70 (Crab) Antibody - Protocols



Western blot analysis of Crab Cell Lysate
 showing detection of HSP70 protein using
 Rabbit Anti-HSP70 Polyclonal Antibody
 (ASM10475). Primary Antibody: Rabbit
 Anti-HSP70 Polyclonal Antibody (ASM10475)
 at 1:1000.

HSP70 (Crab) Antibody - 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 (1,
 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

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

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. Looking for more information on HSP70? Visit our new HSP70 Scientific Resource Guide at <http://www.HSP70.com>.

HSP70 (Crab) Antibody - References

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4. DeLuca-Flaherty et al. (1990) Cell 62: 875-887.
5. Bork P., Sander C. & Valencia A. (1992) Proc. Natl Acad. Sci. USA 89: 7290-7294.
6. Fink A.L. (1999) Physiol. Rev. 79: 425-449.
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