Datasheet for ABIN1686694

HSP70 Protein (full length)

1 Image

Go to Product page

Overview

Quantity:	100 µg
Target:	HSP70
Protein Characteristics:	full length
Origin:	Human
Source:	Baculovirus infected Insect Cells
Protein Type:	Recombinant
Application:	SDS-PAGE (SDS), Western Blotting (WB), Functional Studies (Func), Activity Assay (AcA), ELISA

Product Details

Sequence:	MAKAAAVGID LGTTYSCVGV FQHGKVEIIA NDQGNRTTPS YVAFTDTERL IGDAAKNQVA LNPQNTVFDA KRLIGRKFGD PVVQSDMKHW PFQVINDGDK PKVQVSYKGE TKAFYPEEIS SMVLTKMKEI AEAYLGYPVT NAVITVPAYF NDSQRQATKD AGVIAGLNVL RIINEPTAAA IAYGLDRTGK GERNVLIFDL GGGTFDVSIL TIDDGIFEVK ATAGDTHLGG EDFDNRLVNH FVEEFKRKHK KDISQNKRAV RRLRTACERA KRTLSSSTGA SLEIDSLFEG IDFYTSITRA RFEELCSDLF RSTLEPVEKA LRDAKLDKAQ IHDLVLVGGS TRIPKVQKLL QDFFNGRDLN KSINPDEAVG YGAAVQAAIL MGDKSENVQD LLLLDVAPLS LGLETAGGVM TALIKRNSTI PTKQTQIFTT YSDNQPGVLI QVYEGERAMT KDNNLLGRFE LSCIPPAPGV PQIEVTFDID ANGILNVTAT KDSTGKANKI TITNDKGRLS KEEIERMVQE AEKYKAEDEV QRERVSAKNA LESYAFNMKS AVEDEGLKGK ISEADKKKVL DKCQEVISWL DANTLAEKDE FEHKRKELEQ VCNPIISGLY QGAGGPGPGG FGAQGPKGGS GSGPTIEEVD
Specificity:	~70 kDa
Characteristics:	The protein tested positive for ATPase activity using a Malachite Green assay.

Product Details

Purification:	Multi-Step Purified | Endotoxin-free
Purity:	>90%

Target Details

Target:	HSP70
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. Looking for more information on HSP70? Visit our new HSP70 Scientific Resource Guide at http://www.HSP70.com.
Molecular Weight:	approx. 70 kDa
Gene ID:	3303

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Comment:	This product has been certified >90% pure using SDS-PAGE analysis. The protein tested positive for ATPase activity using a Malachite Green assay.

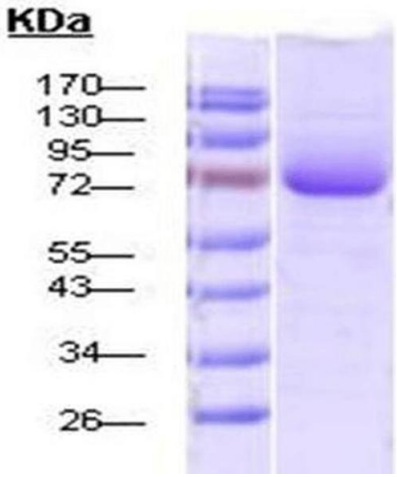
Application Details

Restrictions:	For Research Use only

Handling

Concentration:	Lot specific
Buffer:	50 mM Tris/HCl pH 7.5, 0.3M NaCl, 10 % glycerol, 0.1 mM EDTA
Storage:	-20 °C

Images



SDS-PAGE

Image 1. SDS-PAGE of endotoxin-free 70 kDa native human Hsp70 protein (ABIN1686693, ABIN1686694 and ABIN1686695).