

Product datasheet

Anti-HSF1 antibody [J7F9] ab72352

1 Image

Overview

Product name	Anti-HSF1 antibody [J7F9]
Description	Mouse monoclonal [J7F9] to HSF1
Host species	Mouse
Tested applications	Suitable for: WB, ELISA
Species reactivity	Reacts with: Human
Immunogen	Recombinant human HSF1 (1-529 aa) purified from E. coli
Positive control	HeLa cell lysate
General notes	ab72352 is derived from hybridization of mouse FO myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human HSF1 protein.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.1% Sodium Azide Constituents: PBS, pH 7.4
Primary antibody notes	ab72352 is derived from hybridization of mouse FO myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human HSF1 protein.
Clonality	Monoclonal
Clone number	J7F9
Isotype	IgG1
Light chain type	kappa

Applications

Our [Abpromise guarantee](#) covers the use of **ab72352** in the following tested applications.

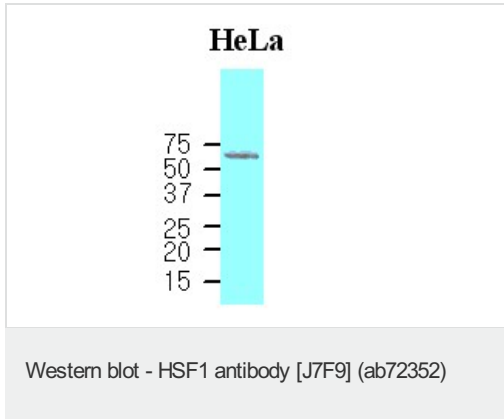
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/1000. Detects a band of approximately 63 kDa (predicted molecular weight: 57 kDa).
ELISA		Use at an assay dependent dilution.

Target

Function	DNA-binding protein that specifically binds heat shock promoter elements (HSE) and activates transcription. In higher eukaryotes, HSF is unable to bind to the HSE unless the cells are heat shocked.
Sequence similarities	Belongs to the HSF family.
Domain	the 9aaTAD motif is a transactivation domain present in a large number of yeast and animal transcription factors.
Post-translational modifications	<p>Phosphorylated on multiple serine residues, a subset of which are involved in stress-related regulation of transcription activation. Constitutive phosphorylation represses transcriptional activity at normal temperatures. Levels increase on specific residues heat-shock and enhance HSF1 transactivation activity. Phosphorylation on Ser-307 derepresses activation on heat-stress and in combination with Ser-303 phosphorylation appears to be involved in recovery after heat-stress. Phosphorylated on Ser-230 by CAMK2, in vitro. Cadmium also enhances phosphorylation at this site. Phosphorylation on Ser-303 is a prerequisite for HSF1 sumoylation. Phosphorylation on Ser-121 inhibits transactivation and promotes HSP90 binding. Phosphorylation on Thr-142 also mediates transcriptional activity induced by heat. Phosphorylation on Ser-326 plays an important role in heat activation of HSF1 transcriptional activity.</p> <p>Sumoylated with SUMO1 and SUMO2 on heat-shock. Heat-inducible sumoylation occurs after 15 min of heat-shock, after which levels decrease and at 4 hours, levels return to control levels. Sumoylation has no effect on HSE binding nor on transcriptional activity. Phosphorylation on Ser-303 is a prerequisite for sumoylation.</p>
Cellular localization	Cytoplasm. Nucleus. Cytoplasmic during normal growth. On activation, translocates to nuclear stress granules. Colocalizes with SUMO1 in nuclear stress granules.

Images



Anti-HSF1 antibody [J7F9] (ab72352) at
1/1000 dilution + HeLa cells lysate at 30 µg

Secondary

goat anti-mouse secondary antibody
conjugated to HRP

Developed using the ECL technique.

Predicted band size: 57 kDa

Observed band size: 63 kDa

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