

Product datasheet

Anti-HSF1 antibody [J7F9] ab72352

1 Image

Overview

---

<b>Product name</b>	Anti-HSF1 antibody [J7F9]
<b>Description</b>	Mouse monoclonal [J7F9] to HSF1
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> WB, ELISA
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant human HSF1 (1-529 aa) purified from E. coli
<b>Positive control</b>	HeLa cell lysate
<b>General notes</b>	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

---

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

Applications

---

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

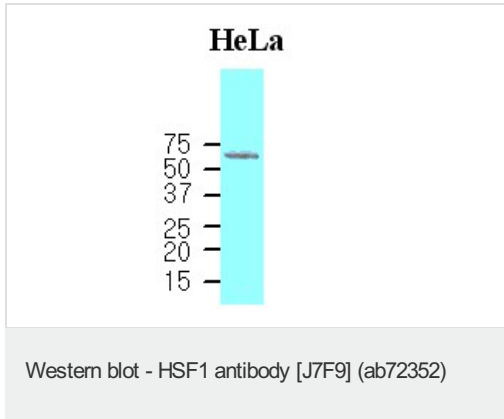
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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

<b>Function</b>	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.
<b>Sequence similarities</b>	Belongs to the HSF family.
<b>Domain</b>	the 9aaTAD motif is a transactivation domain present in a large number of yeast and animal transcription factors.
<b>Post-translational modifications</b>	<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>
<b>Cellular localization</b>	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

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

**Our Abpromise to you: Quality guaranteed and expert technical support**

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <http://www.abcam.com/abpromise> or contact our technical team.

**Terms and conditions**

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors