abcam

Product datasheet

Anti-HSF1 (phospho S326) antibody [EP1713Y] ab76076

Recombinant RabMAb

1 Abreviews 48 References 4 Images

Overview

Product name	Anti-HSF1 (phospho S326) antibody [EP1713Y]
Description	Rabbit monoclonal [EP1713Y] to HSF1 (phospho S326)
Host species	Rabbit
Tested applications	**Suitable for:** Dot blot, WB **Unsuitable for:** Flow Cyt,ICC/IF,IHC-P or IP
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa cell lysates and HeLa cell lysate treated with heat (44ºC)
General notes	Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP1713Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab76076 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
Dot blot		Use a concentration of 0.338 µg/ml.
WB	★★★★☆ **(1)**	1/5000 - 1/10000. Predicted molecular weight: 57 kDa.

Application notes Is unsuitable for Flow Cyt,ICC/IF,IHC-P or IP.

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.

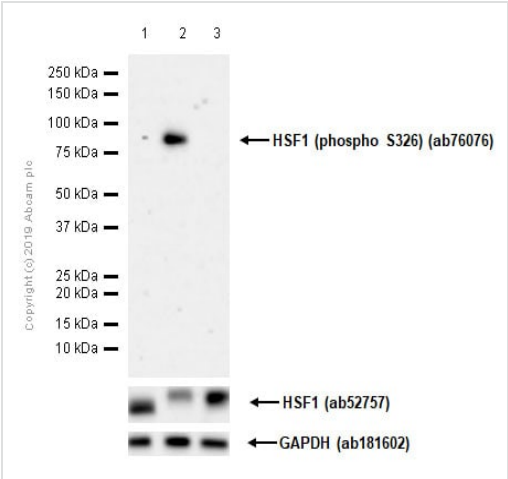
Sequence similarities Belongs to the HSF family.

Domain the 9aaTAD motif is a transactivation domain present in a large number of yeast and animal transcription factors.

Post-translational modifications 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.
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.

Cellular localization Cytoplasm. Nucleus. Cytoplasmic during normal growth. On activation, translocates to nuclear stress granules. Colocalizes with SUMO1 in nuclear stress granules.

Images



Western blot - Anti-HSF1 (phospho S326) antibody [EP1713Y] (ab76076)

All lanes : Anti-HSF1 (phospho S326) antibody [EP1713Y] (ab76076) at 0.169 µg/ml

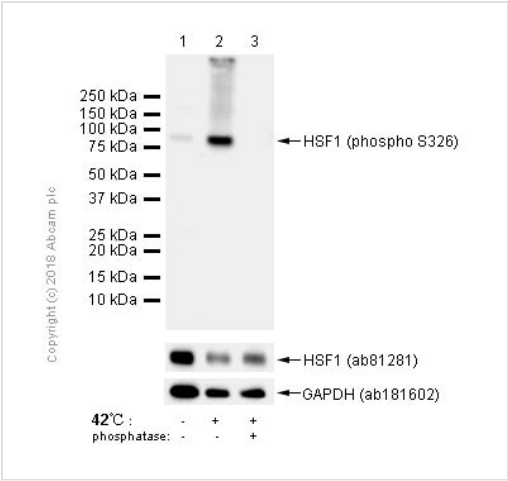
Lane 1 : HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate
Lane 2 : HeLa treated with heat at 43? for 30 minutes whole cell lysate
Lane 3 : HeLa treated with heat at 43? for 30 minutes whole cell lysate. Then the membrane was incubated with alkaline phosphatase.

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 0.02 µg/ml

Predicted band size: 57 kDa
Observed band size: 82 kDa

Blocking/Diluting Buffer and concentration: 5% NFDM /TBST



Western blot - Anti-HSF1 (phospho S326) antibody [EP1713Y] (ab76076)

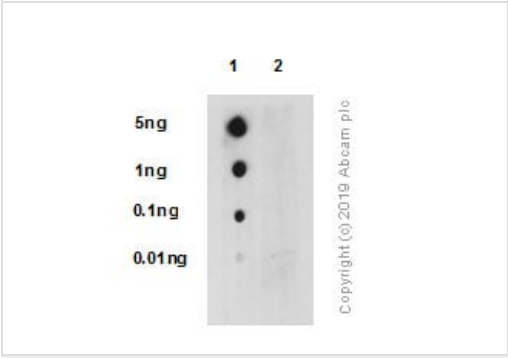
All lanes : Anti-HSF1 (phospho S326) antibody [EP1713Y] (ab76076) at 1/10000 dilution (Purified)

Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
Lane 2 : HeLa (Human cervix adenocarcinoma epithelial cell) treated with heat (42 ?) whole cell lysates
Lane 3 : HeLa (Human cervix adenocarcinoma epithelial cell) treated with heat (42 ?) whole cell lysates. Then the membrane was incubated with phosphatase

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

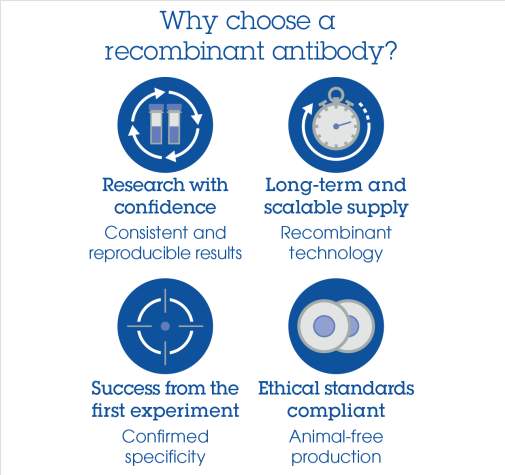
Predicted band size: 57 kDa
Observed band size: 82 kDa



Dot Blot - Anti-HSF1 (phospho S326) antibody [EP1713Y] (ab76076)

Dot blot analysis of HSF1 (phospho S326) peptide (Lane 1), HSF1 non-phospho peptide (Lane 2) labelling HSF1 (phospho S326) with purified ab76076 at 0.338 ug/mL. **ab97051** (Peroxidase conjugated goat anti-rabbit IgG (H+L)) was used as the secondary antibody at 0.01 ug/mL.

Blocking and dilution buffer: 5% NFDM/TBST.



Anti-HSF1 (phospho S326) antibody [EP1713Y]

(ab76076)

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