Phospho-HSF1 (Ser303) Ab

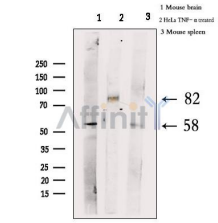
Cat.#: AF3372	Concn.: 1mg/ml	Mol.Wt.: 82kDa
Size: 100ul,200ul	Source: Rabbit	Clonality: Polyclonal

Application:	WB 1:500-1:2000 IHC 1:50-1:200
Reactivity:	Human,Mouse
Purification:	The Ab is from purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.
Specificity:	Phospho-HSF1 (Ser303) Ab detects endogenous levels of HSF1 only when phosphorylated at Serine 303.
Immunogen:	A synthesized peptide derived from human HSF1 around the phosphorylation site of Serine 303.
Uniprot:	Q00613
Description:	The protein encoded by this gene is a bZIP transcription factor which can bind as a homodimer to certain DNA regulatory regions. It can also form heterodimers with the related protein CEBP-delta. The encoded protein may be essential for terminal differentiation and functional maturation of committed granulocyte progenitor cells.
Subcellular Location:	Cytoplasm. Nucleus. Cytoplasmic during normal growth. On activation, translocates to nuclear stress granules. Colocalizes with SUMO1 in nuclear stress granules.
Similarity:	In unstressed cells, spontaneous homotrimerization is inhibited (PubMed:7935471, PubMed:7760831). Intramolecular interactions between the hydrophobic repeat HR-A/B and HR-C regions are necessary to maintain HSF1 in the inactive, monomeric conformation (PubMed:7935471, PubMed:7623826). Furthermore, intramolecular interactions between the regulatory domain and the nonadjacent transactivation domain prevents transcriptional activation, a process that is relieved upon heat shock (PubMed:7760831). The regulatory domain is necessary for full repression of the transcriptional activation domain in unstressed cells through its phosphorylation on Ser-303 and Ser-307 (PubMed:8946918, PubMed:9121459). In heat stressed cells, HSF1 homotrimerization occurs through formation of a three-stranded coiled-coil structure generated by intermolecular interactions between HR-A/B regions allowing DNA-binding activity (PubMed:7935471). The D domain is necessary for translocation to the nucleus, interaction with JNK1 and MAPK3 and efficient JNK1- and MAPK3-dependent

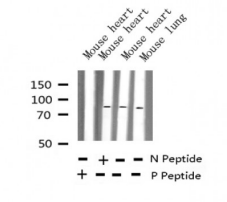
phosphorylation (PubMed:10747973). The regulatory domain confers heat shock inducibility on the transcriptional transactivation domain (PubMed:7760831). The regulatory domain is necessary for transcriptional activation through its phosphorylation on Ser-230 upon heat shock (PubMed:11447121). 9aaTAD is a transactivation motif present in a large number of yeast and animal transcription factors (PubMed:17467953).Belongs to the HSF family.

Storage Condition and Buffer:

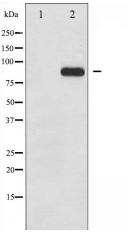
Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.Store at -20 °C.Stable for 12 months from date of receipt.



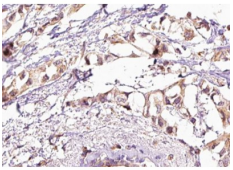
Western blot analysis of extracts from various samples, using Phospho-HSF1 (Ser303) Ab.
lane 1:Mouse brain;
lane 2:Hela TNF-a treated;
lane 3:Mouse spleen.



Western blot analysis of Phospho-HSF1 (Ser303) expression in various lysates



Western blot analysis of HSF1 phosphorylation expression in TNF-α treated MCF7 whole cell lysates,The lane on the left is treated with the antigen-specific peptide.



AF3372 at 1/100 staining human breast carcinoma tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the Ab for 1.5 hours at 22°C. An HRP conjugated goat anti-rabbit Ab was used as the secondary.

IMPORTANT: For western blot, incubate membrane with diluted primary Ab in 5% w/v milk , 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.