

## HSF1 (phospho Ser303) Polyclonal Antibody

Catalog No: YP0133

**Reactivity:** Human; Mouse

**Applications:** WB;IHC;IF;ELISA

Target: HSF1

Fields: >>Legionellosis

Gene Name: HSF1

**Protein Name:** Heat shock factor protein 1

Q00613

P38532

Human Gene Id: 3297

**Human Swiss Prot** 

iuman Swiss Fio

No:

Mouse Gene Id: 15499

**Mouse Swiss Prot** 

No:

**Immunogen:** The antiserum was produced against synthesized peptide derived from human

HSF1 around the phosphorylation site of Ser303. AA range:270-319

Specificity: Phospho-HSF1 (S303) Polyclonal Antibody detects endogenous levels of HSF1

protein only when phosphorylated at S303.

**Formulation :** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit, IgG

**Dilution:** WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:20000. Not

yet tested in other applications.

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.



**Concentration**: 1 mg/ml

**Storage Stability:** -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 82kD

Cell Pathway: SAPK\_JNK

**Background:** heat shock transcription factor 1(HSF1) Homo sapiens The product of this gene

is a transcription factor that is rapidly induced after temperature stress and binds heat shock promoter elements (HSE). This protein plays a role in the regulation of lifespan. Expression of this gene is repressed by phsphorylation, which promotes

binding by heat shock protein 90. [provided by RefSeq, Aug 2016],

**Function:** 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.,PTM: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 transacti

Subcellular Location:

Nucleus . Cytoplasm . Nucleus, nucleoplasm . Cytoplasm, perinuclear region . Cytoplasm, cytoskeleton, spindle pole . Cytoplasm, cytoskeleton, microtubule

organizing center, centrosome . Chromosome, centromere, kinetochore . The

monomeric form is cytoplasmic in unstressed cells (PubMed:8455624,

PubMed:26159920). Predominantly nuclear protein in both unstressed and heat shocked cells (PubMed:10413683, PubMed:10359787). Translocates in the nucleus upon heat shock (PubMed:8455624). Nucleocytoplasmic shuttling

protein (PubMed:26159920). Colocalizes with IER5 in the nucleus

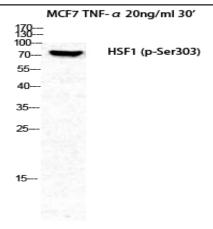
(PubMed:27354066). Colocalizes with BAG3 to the nucleus upon heat stress (PubMed:8455624, PubMed:26159920). Localizes in subnuclear granules called

nuclear stress bodies (nSBs) upon heat shock (PubMed:11447121,

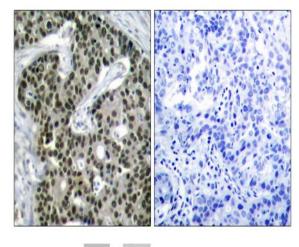
PubMed:1151455

**Expression :** Adipose tissue, Brain, Epithelium, Muscle,

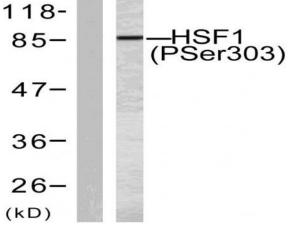
## **Products Images**



Western Blot analysis of MCF7+TNF cells using Phospho-HSF1 (S303) Polyclonal Antibody diluted at 1:1000



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using HSF1 (Phospho-Ser303) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from MCF7 cells treated with TNF-alpha 20ng/ml 30', using HSF1 (Phospho-Ser303) Antibody. The lane on the left is blocked with the phospho peptide.