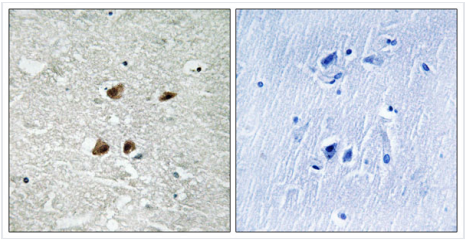
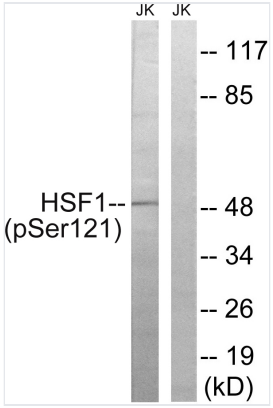
HSF1 Antibody

PRODUCT OVERVIEW

Product Name	HSF1, Antibody
Full Product Name	HSF1 (Phospho-Ser121) Antibody
Product Gene Name	anti-HSF1 antibody
Product Synonym Names	Heat shock factor protein 1; Heat shock transcription factor 1; HSF 1; HSTF 1; HSTF1
Species Reactivity	Human, Mouse
Form/Format	In phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	Affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific phosphopeptide. The antibody againstnon-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.
Specificity	HSF1 (Phospho-Ser121) antibody detects endogenous levels of HSF1 only when phosphorylated at serine 121.
Preparation and Storage	Store at-20 degree C for 1 year.
Molecular Weight	52,881 Da
OMIM	140580
3D Structure	ModBase 3D Structure for Q00613
Immunogen	The antiserum was produced against synthesized phosphopeptide derived from human HSF1 around the phosphorylation site of serine 121 (V-T-SP-V-S).
All Sites	Human: Ser121 Mouse: Ser121
Product Categories/Family for anti-HSF1 antibody	Autophagy antibody; Cancer; Cardiovascular; Cell Biology; Epigenetics & Nuclear Signaling; Developmental Biologys; Immunology; Drug Discovery Products; Metabolism; Neuroscience; Signal Transduction; Stem Cells
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-HSF1 antibody	Western Blot (WB), Immunohistochemistry (IHC), ELISA (EIA)
Application Notes for anti-HSF1 antibody	WB: 1:500~1:1000 IHC: 1:50~1:100 ELISA: 1:20000
Related Product Information for anti-HSF1 antibody	MBS855314 is an antibody targeting HSF1. Also known as HSF1 (Phospho-Ser121) Antibody. Reactive in Human, Mouse.
Product References and Citations for anti-HSF1 antibody	Rabindran S.K., Proc. Natl. Acad. Sci. U.S.A. 88:6906-6910(1991). Ota T., Nat. Genet. 36:40-45(2004). Kalnine N., Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
Other Notes	Small volumes of anti-HSF1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Testing Data of anti-HSF1 antibody
P-peptide-+



Immunohistochemistry (IHC) of anti-HSF1 antibody
Immunohistochemistry analysis of paraffin-embedded human brain tissue using HSF1 (Phospho-Ser121) antibody. Western blot analysis of extracts from Jurkat cells, treated with TNF (2500U/ML, 30mins), using HSF1 (Phospho-Ser121) antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HSF1. It may not necessarily be applicable to this product.

NCBI GI #	5031767
NCBI GeneID	3297
NCBI Accession #	NP_005517.1
UniProt Primary Accession #	Q00613
UniProt Secondary Accession #	Q53XT4; A8K4L0; A8MW26
UniProt Related Accession #	Q00613
GenBank Nucleotide #	NM_005526.3
NCBI Official Full Name	heat shock factor protein 1
NCBI Official Synonym Full Names	heat shock transcription factor 1
NCBI Official Symbol	HSF1
NCBI Official Synonym Symbols	HSTF1
UniProt Protein Name	Heat shock factor protein 1
UniProt Synonym Protein Names	Heat shock transcription factor 1
Protein Family	Heat shock factor protein
UniProt Gene Name	HSF1
UniProt Synonym Gene Names	HSTF 1
NCBI Protein Information	heat shock factor protein 1
NCBI Summary for HSF1	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 phosphorylation, which promotes binding by heat shock protein 90. [provided by RefSeq, Jul 2017]

UniProt Comments for HSF1	Function as a stress-inducible and DNA-binding transcription factor that plays a central role in the transcriptional activation of the heat shock response (HSR), leading to the expression of a large class of molecular chaperones heat shock proteins (HSPs) that protect cells from cellular insults' damage (PubMed:1871105, PubMed:11447121, PubMed:1986252, PubMed:7760831, PubMed:7623826, PubMed:8946918, PubMed:8940068, PubMed:9341107, PubMed:9121459, PubMed:9727490, PubMed:9499401, PubMed:9535852, PubMed:12659875, PubMed:12917326, PubMed:15016915, PubMed:25963659, PubMed:26754925). In unstressed cells, is present in a HSP90-containing multichaperone complex that maintains it in a non-DNA-binding inactivated monomeric form (PubMed:9727490, PubMed:11583998, PubMed:16278218). Upon exposure to heat and other stress stimuli, undergoes homotrimerization and activates HSP gene transcription through binding to site-specific heat shock elements (HSEs) present in the promoter regions of HSP genes (PubMed:1871105, PubMed:1986252, PubMed:8455624, PubMed:7935471, PubMed:7623826, PubMed:8940068, PubMed:9727490, PubMed:9499401, PubMed:10359787, PubMed:11583998, PubMed:12659875, PubMed:16278218, PubMed:25963659, PubMed:26754925). Activation is reversible, and during the attenuation and recovery phase period of the HSR, returns to its unactivated form (PubMed:11583998, PubMed:16278218). Binds to inverted 5'-NGAAN-3' pentamer DNA sequences (PubMed:1986252, PubMed:26727489). Binds to chromatin at heat shock gene promoters (PubMed:25963659). Plays also several other functions independently of its transcriptional activity. Involved in the repression of Ras-induced transcriptional activation of the c-fos gene in heat-stressed cells (PubMed:9341107). Positively regulates pre-mRNA 3'-end processing and polyadenylation of HSP70 mRNA upon heat-stressed cells in a symplekin (SYMPK)-dependent manner (PubMed:14707147). Plays a role in nuclear export of stress-induced HSP70 mRNA (PubMed:17897941). Plays a role in the regulation of mitotic progression (PubMed:18794143). Plays also a role as a negative regulator of non-homologous end joining (NHEJ) repair activity in a DNA damage-dependent manner (PubMed:26359349). Involved in stress-induced cancer cell proliferation in a IER5-dependent manner (PubMed:26754925).
Research Articles on HSF1	**1.** These findings indicate that activation of HSF1 at Ser326 residue and transcription of HSP27 is related to the maintenance of gynecological CSCs/CICs.
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