HSF1 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	HSF1, Monoclonal Antibody
Full Product Name	HSF1 Mouse mAb
Product Gene Name	anti-HSF1 antibody
Product Synonym Names	HSTF1
Clonality	Monoclonal
Isotype	IgG2b
Clone Number	4D5F4
Host	Mouse
Species Reactivity	Human
Form/Format	In PBS with 0.05% Sodium Azide.
Purity/Purification	Affinity Purified
Preparation and Storage	Store at 4 degree C short term. Store at -20 degree C long term. Avoid freeze/thaw cycle.
Molecular Weight	57.3kDa
OMIM	140580
3D Structure	ModBase 3D Structure for Q00613
Immunogen	Purified recombinant fragment of human HSF1 (AA: 256-359) expressed in E. Coli.
Cellular Localization	Centromere, Chromosome, Cytoplasm, Cytoskeleton, Kinetochore, Nucleus
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-HSF1 antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Flow Cytometry (FC/FACS), ELISA (EIA)
Application Notes for anti-HSF1 antibody	WB: 1:500-1:2000 IHC: 1:200-1:1000 ICC: 1:200-1:1000 ELISA: 1:10000
Related Product Information for anti-HSF1 antibody	The product of this gene is a heat-shock transcription factor. Transcription of heat-shock genes is rapidly induced after temperature stress. Hsp90, by itself and/or associated with multichaperone complexes, is a major repressor of this gene.
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.
Searchable Terms for HSF1 purchase	MBS8539211 is an antibody targeting HSF1. Also known as HSF1 Mouse mAb. Reactive in Human. Host: Mouse.

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 Related Accession #	Q00613
GenBank Nucleotide #	NP_005517.1
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	HSTF1; HSF 1; HSTF 1
UniProt Entry Name	HSF1_HUMAN
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	HSF1: a transcription factor that specifically binds heat shock promoter elements (HSE) and activates transcription. Induced in response to heat, heavy metals, and oxidative stress. In higher eukaryotes, HSF is unable to bind to HSEs unless the cells are stressed. Becomes phosphorylated in response to stress, forming homotrimers that bind DNA and activate transcription. Phosphorylation by PLK1 enhances nuclear translocation, and phosphorylation by CaMKII enhances transactivation. Phosphorylation by GSK3 and ERK1 induces binding by 14-3-3 and sequestration in the cytoplasm. In addition, during attenuation from the heat shock response, HSF1 is repressed by direct binding of Hsp70, HSP40, and HSF binding protein 1 (HSBP1). Four alternatively spliced isoforms have been described. Protein type: DNA-binding; Transcription factor Chromosomal Location of Human Ortholog: 8q24.3 Cellular Component: nucleoplasm; protein complex; pronucleus; cytoplasm; cytosol Molecular Function: protein binding; chromatin binding; transcription factor activity Biological Process: negative regulation of cell proliferation; embryonic placenta development; embryonic process involved in female pregnancy; mRNA transcription; female meiosis; defense response; spermatogenesis; response to lipopolysaccharide; positive regulation of transcription from RNA polymerase II promoter; negative regulation of tumor necrosis factor production; positive regulation of multicellular organism growth; negative regulation of transcription from RNA polymerase II promoter; protein amino acid phosphorylation
Research Articles on HSF1	**1.** A 90-bp sequence around the intronic single nucleotide polymorphism rs2802292 has enhancer functions, and that the rs2802292 G-allele creates a novel HSE binding site for HSF1, which induces FOXO3 expression in response to diverse stress stimuli.
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