

Product datasheet for TP508087

OriGene Technologies, Inc.

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Hsf1 (NM 008296) Mouse Recombinant Protein

Product data:

Product Type: Recombinant Proteins

Description: Purified recombinant protein of Mouse heat shock factor 1 (Hsf1), with C-terminal MYC/DDK

tag, expressed in HEK293T cells, 20ug

Species: Mouse Expression Host: HEK293T

Expression cDNA Clone >MR208087 representing NM_008296

or AA Sequence: Red=Cloning site Green=Tags(s)

MDLAVGPGAAGPSNVPAFLTKLWTLVSDPDTDALICWSPSGNSFHVFDQGQFAKEVLPKYFKHNNMASFV RQLNMYGFRKVVHIEQGGLVKPERDDTEFQHPCFLRGQEQLLENIKRKVTSVSTLKSEDIKIRQDSVTRL LTDVQLMKGKQECMDSKLLAMKHENEALWREVASLRQKHAQQQKVVNKLIQFLISLVQSNRILGVKRKIP LMLSDSNSAHSVPKYGRQYSLEHVHGPGPYSAPSPAYSSSSLYSSDAVTSSGPIISDITELAPTSPLASP GRSIDERPLSSSTLVRVKQEPPSPPHSPRVLEASPGRPSSMDTPLSPTAFIDSILRESEPTPAASNTAPM DTTGAQAPALPTPSTPEKCLSVACLDKNELSDHLDAMDSNLDNLQTMLTSHGFSVDTSALLDIQELLSPQ EPPRPIEAENSNPDSGKQLVHYTAQPLFLLDPDAVDTGSSELPVLFELGESSYFSEGDDYTDDPTISLLT

GTEPHKAKDPTVS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag: C-MYC/DDK
Predicted MW: 55.4 kDa

Concentration: $>0.05 \mu g/\mu L$ as determined by microplate BCA method

Purity: > 80% as determined by SDS-PAGE and Coomassie blue staining

Buffer: 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

Note: For testing in cell culture applications, please filter before use. Note that you may experience

some loss of protein during the filtration process.

Storage: Store at -80°C after receiving vials.

Stability: Stable for 12 months from the date of receipt of the product under proper storage and

handling conditions. Avoid repeated freeze-thaw cycles.

RefSeq: NP 032322





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Locus ID: 15499

UniProt ID: <u>P38532</u>, <u>A0A075F882</u>, <u>P38532-2</u>

RefSeq Size: 2018

Cytogenetics: 15 35.95 cM

RefSeq ORF: 1509

Synonyms: AA960185; Hsf1alpha; Hsf1beta; HSTF

Summary: 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. In unstressed cells, is present in a HSP90-containing multichaperone complex that maintains it in a non-DNA-binding inactivated monomeric form. 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. Activation is reversible, and during the attenuation and recovery phase period of the HSR, returns to its unactivated form. Binds to inverted 5'-NGAAN-3' pentamer DNA sequences. Binds to chromatin at heat shock gene promoters. 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. Positively regulates pre-mRNA 3'-end processing and polyadenylation of HSP70 mRNA upon heat-stressed cells in a symplekin (SYMPK)-dependent manner. Plays a role in nuclear export of stress-induced HSP70 mRNA. Plays a role in the regulation of mitotic progression. Plays also a role as a negative regulator of non-homologous end joining (NHEI) repair activity in a DNA damage-dependent manner. Involved in stress-induced cancer cell proliferation in a IER5-dependent manner.