
Product Data Sheet

Product Name: HSF1 Human

Cat. No.: GP25092

Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	HSF-1; HSF1; HSTF-1; HSTF1; Heat shock factor protein 1; Heat shock transcription factor 1.		
Amino Acid Sequence	<p>MGSSHHHHHH SGLVPRGSH MDLPVPGGAA GPSNVPAFLT KLWTLVSDPD TDALICWSPS GNSFHVFDQG QFAKEVLPKY FKHNNMASFV RQLNMYGFRK VVHIEQGGLV KPERDDTEFQ HPCFLRGQEQ LLENIKRKVT SVSTLKSEDI KIRQDSVTKL LTDVQLMKGK QECMDSKLLA MKHENEALWR EVASLRQKHA QQQKVVNCLI QFLISLVQSN RILGVKRKIP LMLNDSGSAH SMPKYSRQFS LEHVHGSGPY SAPSPAYSSS SLYAPDAVAS SGPIISDITE LAPASPMASP GGSIDERPLS SSPLVRVKEE PPSPPQSPRV EEASPGRPSS VDTLLSPTAL IDSILRESEP APASVTALTD ARGHTDTEGR PPSPPPTSTP EKCLSVACLD KNELSDHLDA MDSNLDNLQT MLSSHGFSVD TSALLDLFSP SVTVPDMSLP DLDSSLASIQ ELLSPQEPPR PPEAENSSPD SGKQLVHYTA QPLFLLDPGS VDTGSNDLPV LFELGEGSYF SEGDFGAEDP TISLLTGSEP PKAKDPTVS.</p>		
Formulation	The HSF1 protein (1mg/ml) contains 20mM Tris pH-8, 50mM NaCl and 1mM DTT.		

Introduction

The transcription of heat-shock genes is rapidly induced after temperature stress in response to environmental changes, and it is also involved in oogenesis, spermatogenesis, and placental development. Hsp90, is a major repressor of HSF1 gene. HSF1 is known for its participation in heat shock response. HSF1 protein regulates the transcription of hundreds of targets, such as genes involved in protein folding, detoxification, energy generation, carbohydrate metabolism, and cell wall organization. HSF1 binds to MTA1 in vitro & in breast carcinoma. Suppression of estrogen-dependent transcription may contribute to role of HSF1 in cancer. Human

Caution: Product has not been fully validated for medical applications. For research use only.

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cancer lines of diverse origins express higher dependence on HSF1 function to maintain proliferation and survival than their non-transformed counterparts. HSF1 induces anticoagulation and relaxation factors in vascular endothelial cells and could therefore be used to treat cardiovascular disease. HSF1 is directly involved in the regulation of HO1 having an anti-oxidative role. NF-kappaB and HSF1 are systemically activated in human acute pancreatitis. HSF1 activation protects against severity of pancreatitis. HSF1 is a vital transcription factor which plays a role in up-regulation of VDUP1 expression through stresses such as elevated density and serum deprivation cultures.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

Recombinant Human HSF1 produced in E.Coli is a single, non-glycosylated polypeptide chain containing a total of 549 amino acids (1-529) and having a molecular mass of 59.4kDa. The HSF1 protein is fused to a 20 aa His-Tag at N-terminus.

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