

Recombinant Human DUSP1

Cat. No. DUSP1-28071TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human DUSP1 protein with an N terminal proprietary tag; predicted Mwt: 66.44 kDa inclusive of tag.
Species	Human
Source	Wheat Germ
ProteinLength	367 amino acids
Description	The expression of DUSP1 gene is induced in human skin fibroblasts by oxidative/heat stress and growth factors. It specifies a protein with structural features similar to members of the non-receptor-type protein-tyrosine phosphatase family, and which has significant amino-acid sequence similarity to a Tyr/Ser-protein phosphatase encoded by the late gene H1 of vaccinia virus. The bacterially expressed and purified DUSP1 protein has intrinsic phosphatase activity, and specifically inactivates mitogen-activated protein (MAP) kinase in vitro by the concomitant dephosphorylation of both its phosphothreonine and phosphotyrosine residues. Furthermore, it suppresses the activation of MAP kinase by oncogenic ras in extracts of Xenopus oocytes. Thus, DUSP1 may play an important role in the human cellular response to environmental stress as well as in the negative regulation of cellular proliferation.
Molecular Weight	66.440kDa inclusive of tags
Tissue specificity	Expressed at high levels in the lung, liver placenta and pancreas. Moderate levels seen in the heart and skeletal muscle. Lower levels found in the brain and kidney.

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Form	Liquid
Purity	Proprietary Purification
Storage buffer	pH: 8.00Constituents:0.3% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	MVMEVGTLDA GGLRALLGER AAQCLLLDCR SFFAFNAGHI AGSVNVRFST IVRRRAKGAM GLEHIVPNAE LRGRLLAGAY HAVVLLDERS AALDGAKRDG TLALAAGALC REARAAQVFF LKGGYEAFA SCPELCSKQS TPMGLSLPLS TSVPDSAESG CSSCSTPLYD QGGPVEILPF LYLGSAYHAS RKDMLDALGI TALINVSANC PNHFEGHYQY KSIPVEDNHK ADISSWFNEA IDFIDSIKNA GGRVFEVHCQA GISRSATICL AYLMRTNRVK LDEAFEFVKQ RRSIISP NFS FMGQLLQFES QVLAPHCSAE AGSPAMAVLD RGTSTTTVFN FVSIPVHST NSALSYLQSP ITTSPSC
Sequence Similarities	Belongs to the protein-tyrosine phosphatase family. Non-receptor class dual specificity subfamily.Contains 1 rhodanese domain.Contains 1 tyrosine-protein phosphatase domain.

GENE INFORMATION

Gene Name	DUSP1 dual specificity phosphatase 1 [Homo sapiens]
Official Symbol	DUSP1
Synonyms	DUSP1; dual specificity phosphatase 1; PTPN10; dual specificity protein phosphatase 1; CL100; HVH1; MKP 1;

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Gene ID	1843
mRNA Refseq	NM_004417
Protein Refseq	NP_004408
MIM	600714
Uniprot ID	P28562
Chromosome Location	5q35.1
Pathway	ATF-2 transcription factor network, organism-specific biosystem; Direct p53 effectors, organism-specific biosystem; EGFR1 Signaling Pathway, organism-specific biosystem; ErbB1 downstream signaling, organism-specific biosystem; Fc-epsilon receptor I signaling in mast cells, organism-specific biosystem;
Function	MAP kinase tyrosine/serine/threonine phosphatase activity; hydrolase activity; non-membrane spanning protein tyrosine phosphatase activity; protein binding; protein tyrosine/threonine phosphatase activity;