

Recombinant Human Dual Specificity Phosphatase 10, His-tagged

Cat. No. DUSP10-1392H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant humanDUSP10 protein, fused to His-tag at N-terminus, was expressed in E. coli andpurified by using conventional chromatography techniques.
Species	Human
Source	E.coli
Description	DUSP10 (Dualspecificity protein phosphatase 10) belongs to the protein-tyrosinephosphatase family. Dual specificity protein phosphatases(DUSPs) inactivatetheir target kinases by dephosphorylating both the phosphoserine/threonineand phosphotyrosine residues. They negatively regulate members of the MAPKsuperfamily (MAPK/ERK, SAPK/JNK, p38), which is associated with cellularproliferation and differentiation. DUSP10 has been shown to interact withMAPK14 and MAPK8. When expressed in mammalian cells, DUSP10 blocks theenzymatic activation of MAP kinases with the selectivity p38 approximatelyJNK/SAPK >> ERK.
Form	Liquid. In 20mMTris-HCl buffer (pH 8.0) containing 2mM DTT, 50% glycerol, 200mM NaCl.
Molecular Weight	40.4kDa(359aa), confirmed by MALDI-TOF.
Purity	> 90%by SDS - PAGE

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Concentration	0.25 mg/ml(determined by Bradford assay)
Sequences of aminoacids	MGSSHHHHHHSSGLVPRGSH MGSHMIIYPN DLAKKMTKCS KSHLPSQGPV IIDCRPFMEYNKSHIQGAVH INCADKISRR RLQQGKITVLDLISCREGKD SFKRIFSKEI IVYDENTNEP SRVMPSQPLHIVLES�KREG KEPLVLKGGL SSFKQNHENL CDNSLQLQEC REVGGGASAA SSLLPQPIPT TPDIENTAELTPILPFLFLGN EQDAQDLDTM QRLNIGYVIN VTTHLPLYHY EKGLFNYKRL PATDSNKQNL RQYFEEAFEFIEEAHQCGKG LLIHCQAGVS RSATIVIAYL MKHTRMTMTD AYKFVKGKRP IISPNLNFMG QLLEFEEDLNNGVTPRILTP KLMGVETVV
Storage	Can bestored at +4°C short term (1-2 weeks). For long term storage, aliquot andstore at -20°C or -70°C. Avoid repeated freezing and thawing cycles.
GENE INFORMATION	
Gene Name	DUSP10 dual specificityphosphatase 10 [Homo sapiens]
Official Symbol	DUSP10
Synonyms	DUSP10; dual specificity phosphatase 10;MKP5; MKP-5; dual specificity protein phosphatase 10; OTTHUMP00000035380; mapkinase phosphatase 5; dual specificity phosphatase MKP-5; serine/threoninespecific protein phosphatase; mitogen-activated protein kinase phosphatase 5;EC 3.1.3.16; EC 3.1.3.48
Gene ID	11221
mRNA Refseq	NM_007207
Protein Refseq	NP_009138

MIM	608867
UniProt ID	Q9Y6W6
Chromosome Location	1q41
Pathway	ATF-2 transcription factor network; MAPK signaling pathway; Regulation of p38-alpha and p38-beta
Function	MAP kinase tyrosine/serine/threonine phosphatase activity; hydrolase activity; phosphoprotein phosphatase activity; protein tyrosine phosphatase activity
PDB rendering based on 1zzw.	