Dual Specificity Protein Phosphatase 4 (DUSP4) Rat Recombinant Protein

PRODUCT OVERVIEW

Product Name	Dual specificity protein phosphatase 4 (Dusp4), Recombinant Protein
Full Product Name	Recombinant Rat Dual specificity protein phosphatase 4 (Dusp4)
Product Gene Name	Dusp4 recombinant protein
Product Synonym Gene Name	Dusp4
Sequence	MVTMEELREM DCSVLKRLMN RDENGGTAGS SGGSHGALGL LSGGKCLLLD CRPFLAHSAG YIRGSVNVRC NTIVRRRAKG SVSLEQILPA EEEVRARLRS GLYSAVIVYD ERSPRAESLR EDSTVSLVVQ ALRRNAERTD ICLLKGGYER FSSEYPEFCS KTKALAAIPP PVPPSTNESL DLGCSSCGTP LHDQGGPVEI LPFLYLGSAY HAARRDMLDA LGITALLNVS SDCPNHFEGH YQYKCIPVED NHKADISSWF MEAIEYIDAV KDCRGRVLVH CQAGISRSAT ICLAYLMMKK RVRLEEAFEF VKQRRSIISP NFSFMGQLLQ FESQVLTTSC AAEAASPSGP LRERGKATPT PTSQFVFSFP VSVGVHAAPS NLPYLHSPIT TSPSC
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	43,187 Da
Sequence Positions	1-395, full length protein
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
3D Structure	ModBase 3D Structure for Q62767
Species	Rat
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for Dusp4 recombinant protein	This protein is a member of the dual specificity protein phosphatase subfamily. These phosphatases inactivate their target kinases by dephosphorylating both the phosphoserine threonine and phosphotyrosine residues. They negatively regulate members of the mitogen-activated protein (MAP) kinase superfamily (MAPK ERK, SAPK JNK, p38), which are associated with cellular proliferation and differentiation. Different members of the family of dual specificity phosphatases show distinct substrate specificities for various MAP kinases, different tissue distribution and subcellular localization, and different modes of inducibility of their expression by extracellular stimuli. This gene product inactivates ERK1, ERK2 and JNK, is expressed in a variety of tissues, and is localized in the nucleus. Two alternatively spliced transcript variants, encoding distinct isoforms, have been observed for this gene. In addition, multiple polyadenylation sites have been reported.
Other Notes	Small volumes of Dusp4 recombinant protein 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 Dusp4 purchase	MBS1386322 is a recombinant protein targeting Dusp4. Also known as Recombinant Rat Dual specificity protein phosphatase 4 (Dusp4). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Dusp4. It may not necessarily be applicable to this product.

NCBI GI #	25742822
NCBI GeneID	60587
NCBI Accession #	NP_071535.1
UniProt Primary Accession #	Q62767
UniProt Related Accession #	Q62767
GenBank Nucleotide #	NM_022199.1
NCBI Official Full Name	dual specificity protein phosphatase 4
NCBI Official Synonym Full Names	dual specificity phosphatase 4
NCBI Official Symbol	Dusp4
NCBI Official Synonym Symbols	Mkp2; Mkp-2
UniProt Protein Name	Dual specificity protein phosphatase 4
UniProt Synonym Protein Names	Mitogen-activated protein kinase phosphatase 2; MAP kinase phosphatase 2; MKP-2
Protein Family	Dual specificity protein phosphatase
UniProt Gene Name	Dusp4
UniProt Synonym Gene Names	Mkp2; MAP kinase phosphatase 2; MKP-2
NCBI Protein Information	dual specificity protein phosphatase 4
NCBI Summary for Dusp4	exhibits vanadate-sensitive phosphatase activity for MAP kinase; inhibits transcription of MAP kinase-dependent genes [RGD, Feb 2006]
UniProt Comments for Dusp4	Regulates mitogenic signal transduction by dephosphorylating both Thr and Tyr residues on MAP kinases ERK1 and ERK2.
Research Articles on Dusp4	**1.** DUSP4 gene knockdown further supports the hypothesis that DUSP4 is an antioxidant gene, critical in the modulation of eNOS expression, and thus protects against Cd(2+)-induced stress.
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