DUSP14 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	DUSP14, Polyclonal Antibody
Full Product Name	Anti-DUSP14 Antibody, Rabbit Polyclonal
Product Gene Name	anti-DUSP14 antibody
Product Synonym Names	DUSP14/MKP-6 Antibody, Rabbit PAb; dual specificity phosphatase 14; Anti-MKP-L Antibody; Anti-MKP6 Antibody
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid; 0.2um filtered solution in PBS
Purity/Purification	Protein A
Specificity	Human DUSP14/MKP-6
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.
Molecular Weight	22,255 Da
OMIM	606618
3D Structure	ModBase 3D Structure for O95147
Immunogen	Recombinant Human DUSP14/MKP-6 protein
Conjugation	Unconjugated
Preparation	Produced in rabbits immunized with purified, recombinant Human DUSP14/MKP-6 (rh DUSP14). Total IgG was purified by Protein A affinity chromatography.
Applications Tested/Suitable for anti-DUSP14 antibody	ELISA (EIA)
Application Notes for anti-DUSP14 antibody	ELISA: 1:1000-1:2000
Related Product Information for anti-DUSP14 antibody	Dual specific phosphatase 14/MAP-kinase phophatase-6 (DUSP14/MKP6) is a member of Dual-specificity phosphatases that is a subclass of protein tyrosine phosphatases (PTP) families that can dephosphorylate bothe phosphotyrosine and phosphoserine/phosphothreonine residues in substrates. Unlike many other DUSPs, DUSP14 only contains a catalytic domain within the C-terminal region. In signal transduction, DUSP14 has been considered as negative regulator of the mitogen-activated protein kinase (MAPK)/extracellular signal-regulated kinase 1/2 (ERK 1/2) pathway. DUSP14 phosphatase activity has been confirmed to be inhibited by PTP inhibitor IV. PTP inhibitor binds to the catalytic site of DUSP14. PTP inhibitor IV effectively and specifically inhibited DUSP14-mediated dephosphorylation of JNK, a member of the mitogen-activated protein kinase (MAPK) family through dephosphorylation of both the Ser/Thr and Tyr residues of MAPKs.

Product References and Citations for anti-DUSP14 antibody	Yoshihara Y, et al. (1996) Overlapping and differential expression of BIG-2, BIG-1, TAG-1, and F3: four members of an axon-associated cell adhesion molecule subgroup of the immunoglobulin superfamily. J Neurobiol. 28 (1): 51-69.Klinger S, et al. (2008) Increasing GLP-1-induced beta-cell proliferation by silencing the negative regulators of signaling cAMP response element modulator-alpha and DUSP14. Diabetes. 57 (3): 584-93.Park JE, et al. (2009) PTP inhibitor IV protects JNK kinase activity by inhibiting dual-specificity phosphatase 14 (DUSP14). Biochem Biophys Res Commun. 387 (4): 795-9.
Other Notes	Small volumes of anti-DUSP14 antibody 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 DUSP14 purchase	MBS8106446 is an antibody targeting DUSP14. Also known as Anti-DUSP14 Antibody, Rabbit Polyclonal. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for DUSP14. It may not necessarily be applicable to this product.

NCBI GI #	5902002
NCBI GeneID	11072
NCBI Accession #	NP_008957.1
UniProt Primary Accession #	O95147
UniProt Related Accession #	O95147
GenBank Nucleotide #	NM_007026.3
NCBI Official Full Name	dual specificity protein phosphatase 14
NCBI Official Synonym Full Names	dual specificity phosphatase 14
NCBI Official Symbol	DUSP14
NCBI Official Synonym Symbols	MKP6; MKP-L
UniProt Protein Name	Dual specificity protein phosphatase 14
UniProt Synonym Protein Names	MKP-1-like protein tyrosine phosphatase; MKP-L; Mitogen-activated protein kinase phosphatase 6; MAP kinase phosphatase 6; MKP-6
Protein Family	Dual specificity protein phosphatase
UniProt Gene Name	DUSP14
UniProt Synonym Gene Names	MKP6; MKP-L; MAP kinase phosphatase 6; MKP-6
UniProt Entry Name	DUS14_HUMAN
NCBI Protein Information	dual specificity protein phosphatase 14; MKP-6; MAP kinase phosphatase 6; MKP-1 like protein tyrosine phosphatase; MKP-1-like protein tyrosine phosphatase; mitogen-activated protein kinase phosphatase 6
NCBI Summary for DUSP14	Dual-specificity phosphatases (DUSPs) constitute a large heterogeneous subgroup of the type I cysteine-based protein-tyrosine phosphatase superfamily. DUSPs are characterized by their ability to dephosphorylate both tyrosine and serine/threonine residues. They have been implicated as major modulators of critical signaling pathways. DUSP14 contains the consensus DUSP C-terminal catalytic domain but lacks the N-terminal CH2 domain found in the MKP (mitogen-activated protein kinase phosphatase) class of DUSPs (see MIM 600714) (summary by Patterson et al., 2009 [PubMed 19228121]).[supplied by OMIM, Dec 2009]

UniProt Comments for DUSP14	MKP-6: 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 (ERK, JNK, p38). Is a negative regulator of T cell costimulation via CD28. Protein type: Motility/polarity/chemotaxis; Protein phosphatase, dual-specificity; EC 3.1.3.48; EC 3.1.3.16 Chromosomal Location of Human Ortholog: 17q12 Molecular Function: protein tyrosine/serine/threonine phosphatase activity; protein tyrosine phosphatase activity; MAP kinase tyrosine/serine/threonine phosphatase activity Biological Process: inactivation of MAPK activity
Research Articles on DUSP14	**1.** findings suggest that DUSP14 negatively regulates TNF- or IL-1-induced NF-kappaB activation by dephosphorylating TAK1 at Thr-187
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