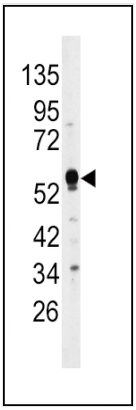
DUSP4 Antibody – Rabbit Polyclonal

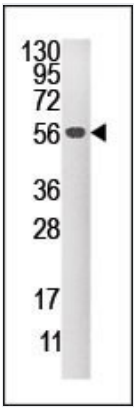
PRODUCT OVERVIEW

Product Name	DUSP4, Polyclonal Antibody
Full Product Name	DUSP4 Antibody (C-term)
Product Gene Name	anti-DUSP4 antibody
Product Synonym Names	Dual specificity protein phosphatase 4; Dual specificity protein phosphatase hVH2; Mitogen-activated protein kinase phosphatase 2; MAP kinase phosphatase 2; MKP-2; DUSP4; MKP2; VH2
Clonality	Polyclonal
Isotype	Rabbit Ig
Host	Rabbit
Species Reactivity	Human, mouse
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Purity/Purification	Purified Rabbit Polyclonal Antibody (Pab)
Concentration	Vial Concentration: 2 (lot specific)
Specificity	This DUSP4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 331-361 amino acids from the C-terminal region of human DUSP4.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.
Molecular Weight	42953
Immunogen Sequence Positions	331-361
OMIM	602747
3D Structure	ModBase 3D Structure for Q13115
Antigen Type	Synthetic Peptide
Antigen Source	HUMAN
Product Categories/Family for anti-DUSP4 antibody	Cell Biology; Signal transduction
Applications Tested/Suitable for anti-DUSP4 antibody	Western Blot (WB), ELISA (EIA), Immunohistochemistry (IHC)
Application Notes for anti-DUSP4 antibody	WB~~1:1000
Related Product Information for anti-DUSP4 antibody	DUSP4 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. DUSP4 inactivates ERK1, ERK2 and JNK, is expressed in a variety of tissues, and is localized in the nucleus.

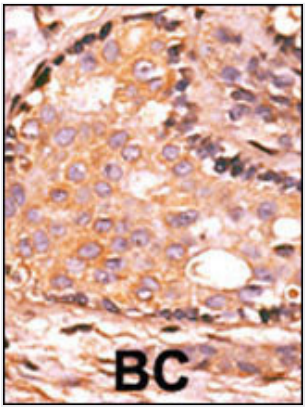
Product References and Citations for anti-DUSP4 antibody	Chen, P., et al., J. Biol. Chem. 276(31):29440-29449 (2001). Smith, A., et al., Genomics 42(3):524-527 (1997). Chu, Y., et al., J. Biol. Chem. 271(11):6497-6501 (1996). King, A.G., et al., Oncogene 11(12):2553-2563 (1995). Guan, K.L., et al., J. Biol. Chem. 270(13):7197-7203 (1995).
Other Notes	Small volumes of anti-DUSP4 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 DUSP4 purchase	MBS9212644 is an antibody targeting DUSP4. Also known as DUSP4 Antibody (C-term). Reactive in Human, mouse. Host: Rabbit.



Western Blot (WB) of anti-DUSP4 antibody
Western blot analysis of anti-DUSP4 Antibody (C-term) in HepG2 cell line lysates (35ug/lane). DUSP4 (arrow) was detected using the purified Pab.



Western Blot (WB) of anti-DUSP4 antibody
Western blot analysis of anti-DUSP4 Pab in mouse brain tissue lysate (35ug/lane). DUSP4(arrow) was detected using the purified Pab.



Immunohistochemistry (IHC) of anti-DUSP4 antibody
Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for DUSP4. It may not necessarily be applicable to this product.

NCBI GI #	4503417
NCBI GeneID	1846
NCBI Accession #	NP_001385.1
NCBI Related Accession #	NP_476499.1
UniProt Primary Accession #	Q13115
UniProt Secondary Accession #	Q13524; B2RBU5; D3DSU4; G5E930

UniProt Related Accession #	Q13115
GenBank Nucleotide #	NM_001394.6
NCBI Official Full Name	dual specificity protein phosphatase 4 isoform 1
NCBI Official Synonym Full Names	dual specificity phosphatase 4
NCBI Official Symbol	DUSP4
NCBI Official Synonym Symbols	TYP; HVH2; MKP2; MKP-2
UniProt Protein Name	Dual specificity protein phosphatase 4
UniProt Synonym Protein Names	Dual specificity protein phosphatase hVH2; 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; VH2; MAP kinase phosphatase 2; MKP-2
UniProt Entry Name	DUS4_HUMAN
NCBI Protein Information	dual specificity protein phosphatase 4
NCBI Summary for DUSP4	The protein encoded by this gene 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. [provided by RefSeq, Jul 2008]
UniProt Comments for DUSP4	MKP-2: a non-receptor, dual-specificity phosphoprotein phosphatase (DUSP). Different members of the DUSP family show distinct substrate specificities for MAPKs, different tissue distribution and subcellular localization, and different modes of inducibility of their expression by extracellular stimuli. DUSP4 inactivates ERK1, ERK2 and JNK, is expressed in a variety of tissues, and is localized in the nucleus. Induced by hepatocyte growth factor (HGF) and vascular endothelial cell growth factor (VEGF) in human endothelial cells. Two alternatively spliced isoforms have been described. In addition, multiple polyadenylation sites have been reported. Contains 1 rhodanese domain. Protein type: EC 3.1.3.16; Protein phosphatase, dual-specificity; EC 3.1.3.48 Chromosomal Location of Human Ortholog: 8p12-p11 Cellular Component: nucleoplasm; nucleus Molecular Function: protein tyrosine/threonine phosphatase activity; protein tyrosine/serine/threonine phosphatase activity; protein tyrosine phosphatase activity; MAP kinase tyrosine/serine/threonine phosphatase activity Biological Process: nerve growth factor receptor signaling pathway; MyD88-independent toll-like receptor signaling pathway; stress-activated MAPK cascade; MAPKKK cascade; toll-like receptor 3 signaling pathway; protein amino acid dephosphorylation; toll-like receptor 2 signaling pathway; toll-like receptor 10 signaling pathway; toll-like receptor 5 signaling pathway; MyD88-dependent toll-like receptor signaling pathway; endoderm formation; toll-like receptor signaling pathway; innate immune response; toll-like receptor 9 signaling pathway; toll-like receptor 4 signaling pathway; inactivation of MAPK activity
Research Articles on DUSP4	**1.** Low DUSP4 expression levels predict recurrence and mortality in triple-negative breast cancer patients

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