



MKP-1/2 Monoclonal Antibody

Catalog No	YP-mAb-14847
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	DUSP1/4
Immunogen	The antiserum was produced against synthesized peptide derived from human MKP-1/2. AA range:261-310
Specificity	MKP-1/2 Monoclonal Antibody detects endogenous levels of MKP-1/2 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	CL 1;CL1;Dual Specificity Phosphatase 1;Dual specificity protein phosphatase 1; Dual specificity protein phosphatase hVH1;DUS1_HUMAN;DUSP 1;Dusp1; HVH1;MAP kinase phosphatase 1;Mitogen-activated protein kinase phosphatase 1;MKP-1;MKP1;Protein tyrosine phosphatase CL1;Protein-tyrosine phosphatase CL1;PTPN1;Serine/threonine specific protein phosphatase;VH1; Dual specificity phosphatase 4;Dual specificity protein phosphatase 4;Dual specificity protein phosphatase hVH2;DUS4_HUMAN;DUSP 4;Dusp4;HVH 2; HVH2;MAP kinase phosphatase 2;Mitogen activated protein kinase phosphatase 2;Mitogen-activated protein kinase phosphatase 2;MKP 2;MKP-2; MKP2;TYP;Typ1;VH 2;VH1 homologous phosphatase 2;VH2;MKP-1/2;DUSP1/4; Dual specificity protein phosphatase 1/4;CL100;PTPN10;Protein-tyrosine phosphatase CL100
Observed Band	41kD
Calculated Molecular Weight	41kD
Cell Pathway	Nucleus .
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.



Function

catalytic activity: A phosphoprotein + H₂O = a protein + phosphate., catalytic activity: Protein tyrosine phosphate + H₂O = protein tyrosine + phosphate., function: Dual specificity phosphatase that dephosphorylates MAP kinase ERK2 on both 'Thr-183' and 'Tyr-185'. induction: By oxidative stress and heat shock., similarity: Belongs to the protein-tyrosine phosphatase family. Non-receptor class dual specificity subfamily., similarity: Contains 1 rhodanese domain., similarity: Contains 1 tyrosine-protein phosphatase domain., 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.,

Background

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.

matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images

Western Blot analysis of various cells using MKP-1/2 Monoclonal Antibody

