



# MKP-1 Polyclonal Antibody

<b>Catalog No</b>	YP-Ab-14846
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Rat;Mouse;
<b>Applications</b>	WB;IHC;IF;ELISA
<b>Gene Name</b>	DUSP1
<b>Protein Name</b>	Dual specificity protein phosphatase 1
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human MKP1. AA range:318-367
<b>Specificity</b>	MKP-1 Polyclonal Antibody detects endogenous levels of MKP-1 protein.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/20000.. IF 1:50-200
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	DUSP1; CL100; MKP1; PTPN10; VH1; Dual specificity protein phosphatase 1; Dual specificity protein phosphatase hVH1; Mitogen-activated protein kinase phosphatase 1; MAP kinase phosphatase 1; MKP-1; Protein-tyrosine phosphatase CL100
<b>Observed Band</b>	39kD
<b>Cell Pathway</b>	Nucleus .
<b>Tissue Specificity</b>	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.
<b>Function</b>	catalytic activity:A phosphoprotein + H(2)O = a protein + phosphate.,catalytic activity:Protein tyrosine phosphate + H(2)O = 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**

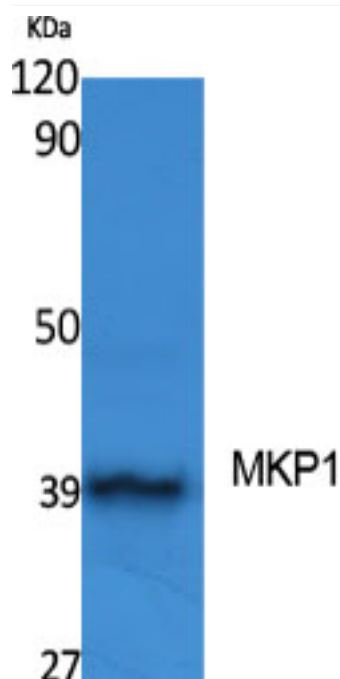
Avoid repeated freezing and thawing!

**Usage suggestions**

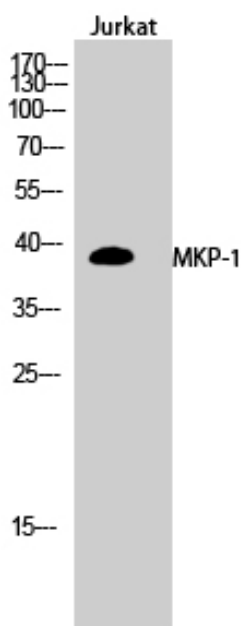
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



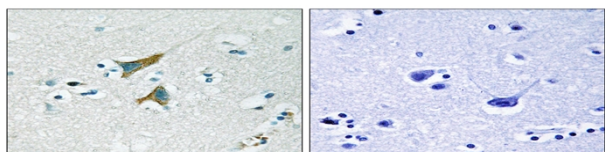
## Products Images



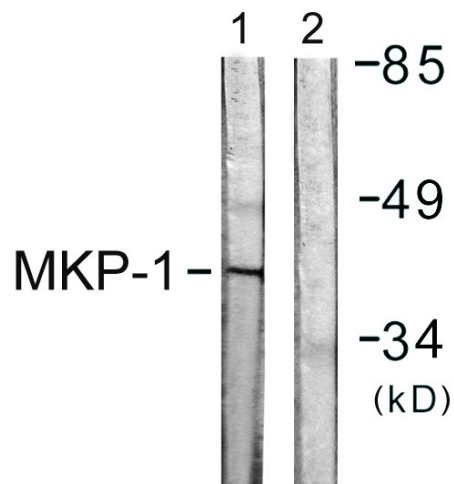
Western Blot analysis of various cells using MKP-1 Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Inventbiotech, MN, USA).



Western Blot analysis of Jurkat cells using MKP-1 Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Inventbiotech, MN, USA).



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using MKP1 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from Jurkat cells, using MKP1 Antibody. The lane on the right is blocked with the synthesized peptide.