

Rabbit Anti-Phospho-MKP1 (Ser318) antibody

SL3678R

Product Name:	Phospho-MKP1 (Ser318)
Chinese Name:	磷酸化丝裂原活化蛋白激酶磷酸酶1抗体
Alias:	P-MKP1(Ser318); Mitogen activated protein kinase phosphatase 1; CL 100; CL100; Dual Specificity Phosphatase 1; Dual specificity protein phosphatase 1; Dual specificity protein phosphatase hVH1; DUSP 1; EC 3.1.3.16; EC 3.1.3.48; HVH 1; HVH1; MAP kinase phosphatase 1; MKP 1; MKP-1; Protein tyrosine phosphatase CL100; PTPN 10; PTPN10; Serine/threonine specific protein phosphatase; VH 1; VH1; 3ch134; Mkp1; Ptpn16.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Rat,Chicken,Dog,Pig,Cow,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	40kDa
Form:	Lyophilized or Liquid
Concentration:	lmg/ml
immunogen:	KLH conjugated synthesised phosphopeptide derived from human MKP1 around the phosphorylation site of Ser318:HC(p-S)AE
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20 °C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	<u>PubMed</u>
Product Detail:	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.

Function:

Dual specificity phosphatase that dephosphorylates MAP kinase MAPK1/ERK2 on both 'Thr-183' and 'Tyr-185'.

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.

Post-translational modifications:

Phosphorylation at Ser-359 and Ser-364 by MAPK1/ERK2 and MAPK3/ERK1 reduces its rate of degradation.

Similarity:

Belongs to the protein-tyrosine phosphatase family. Non-receptor class dual specificity subfamily.

Contains 1 rhodanese domain.

Contains 1 tyrosine-protein phosphatase domain.

SWISS:

P28562

Gene ID:

1843

Database links:

Entrez Gene: 1843Human

Entrez Gene: 19252 Mouse

Entrez Gene: 114856Rat

Omim: 600714Human

SwissProt: P28562Human

SwissProt: P28563Mouse

SwissProt: Q64623Rat

Unigene: 171695Human

Unigene: 239041 Mouse

Unigene: 98260Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

MKPs是一类丝氨酸/苏氨酸和酪氨酸双重底物特异性的磷酸酶,对于丝裂素活化蛋白激酶活性的调节起着十分重要的作用,可使丝裂素活化蛋白激酶上的苏氨酸/酪氨酸去磷酸化失活。目前研究发现MKPs分别有MKP-1、MKP-2、MKP-3及MKP4-6。MKPs受MAPK信号通路中多种成分的诱导

决定了它与MAPK之间作用的特异性。

通过去磷酸化作用调节MAPK信号途径的活性,确保了细胞内信号的精确传递,参与了多种主要的细胞功能的调节。