

**MKP-1/2 (phospho Ser296/318) Polyclonal Antibody**

<b>Catalog No :</b>	YP0823
<b>Reactivity :</b>	Human;Mouse;Rat
<b>Applications :</b>	WB;IHC;IF;ELISA
<b>Target :</b>	MKP-1/2
<b>Fields :</b>	>>MAPK signaling pathway;>>Serotonergic synapse;>>Parkinson disease;>>Fluid shear stress and atherosclerosis
<b>Gene Name :</b>	DUSP1/4
<b>Protein Name :</b>	Dual specificity protein phosphatase 1/4
<b>Human Gene Id :</b>	1843/1846
<b>Human Swiss Prot No :</b>	P28562/Q13115
<b>Mouse Gene Id :</b>	19252/319520
<b>Rat Gene Id :</b>	114856/60587
<b>Rat Swiss Prot No :</b>	Q64623/Q62767
<b>Immunogen :</b>	The antiserum was produced against synthesized peptide derived from human MKP-1/2 around the phosphorylation site of Ser296/318. AA range:261-310
<b>Specificity :</b>	Phospho-MKP-1/2 (S296/318) Polyclonal Antibody detects endogenous levels of MKP-1/2 protein only when phosphorylated at S296/318.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG
<b>Dilution :</b>	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:5000.. IF 1:50-200
<b>Purification :</b>	The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

---

**Concentration :** 1 mg/ml

---

**Storage Stability :** -15°C to -25°C/1 year(Do not lower than -25°C)

---

**Observed Band :** 45kD

---

**Cell Pathway :** MAPK\_ERK\_Growth;MAPK\_G\_Protein;

---

**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 proliferati

---

**Function :** 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.,

---

**Subcellular Location :** Nucleus .

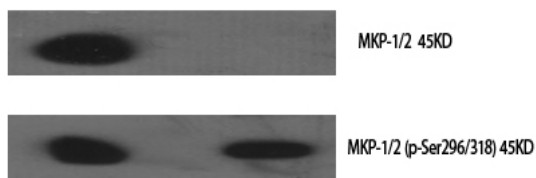
---

**Expression :** 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.

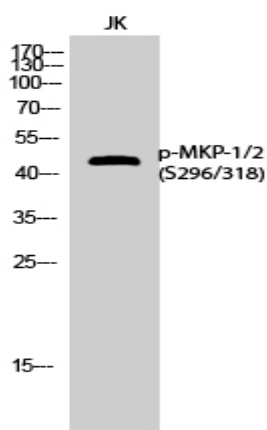
---

## Products Images

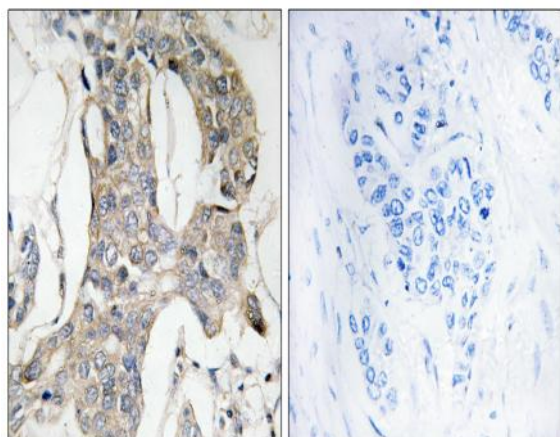
Western Blot analysis of various cells using Phospho-MKP-1/2 (S296/318) Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Inventbiotech, MN, USA).



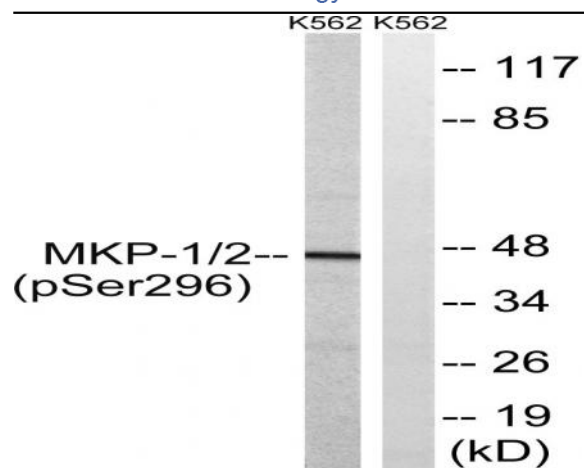
-	+	- phospho-peptide
-	-	+ non-phospho-peptide



Western Blot analysis of JK cells using Phospho-MKP-1/2 (S296/318) Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Inventbiotech, MN, USA).



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using MKP-1/2 (Phospho-Ser296/318) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from K562 cells treated with heat shock , using MKP-1/2 (Phospho-Ser296/318) Antibody. The lane on the right is blocked with the phospho peptide.