

## Product datasheet for **TA301017**

### DUSP6 Rabbit Monoclonal Antibody [Clone ID: EPR129Y]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	EPR129Y
Applications:	FC, IF, IHC, WB
Recommended Dilution:	IHC-P: 1:50 - 1:100; IHC-FoFr: Use at an assay dependent concentration; WB: 1:500; IP: 1:40; FC: 1:20 - 1:60; ICC/IF: 1:1000
Reactivity:	Mouse, Rat, Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	A synthetic peptide corresponding to residues near the C-terminus of human MKP-3 was used as an immunogen.
Formulation:	PBS 49%,Sodium azide 0.01%,Glycerol 50%,BSA 0.05%
Purification:	Tissue culture supernatant
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	42 kDa
Gene Name:	dual specificity phosphatase 6
Database Link:	<a href="#">NP_073143</a> <a href="#">Entrez Gene 67603 Mouse</a> <a href="#">Entrez Gene 116663 Rat</a> <a href="#">Entrez Gene 1848 Human</a> <a href="#">Q16828</a>



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**Background:**

MKP-3 is expressed constitutively in human skin fibroblasts and dephosphorylates and inactivates MAP kinase in vitro and in vivo. MKP-3 displays very low activity towards the stress-activated protein kinases (SAPKs) or RK/p38 in vitro, indicating that these kinases are not physiological substrates for MKP-3. MKP-3 is thought to play a role in the dephosphorylation and inactivation of MAP kinases and are therefore likely to be important in the regulation of diverse cellular processes such as proliferation, differentiation, and apoptosis. For this reason it has been suggested that MAP kinase phosphatases may be tumor suppressors (1). MKP-3 is expressed in lung, heart, brain, and kidney, but not significantly in skeletal muscle or testis. In situ hybridization studies of MKP-3 in brain reveal enrichment within the CA1, CA3, and CA4 layers of the hippocampus. Observations indicate that MKP-3 is a novel dual-specificity phosphatase that displays a distinct tissue distribution, subcellular localization, and regulated expression, suggesting a unique function in controlling MAP kinase family members (2).

**Synonyms:**

HH19; MKP3; PYST1

**Note:**

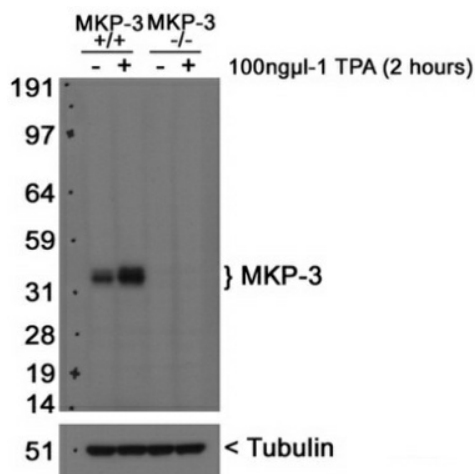
Is unsuitable for ICC.

**Protein Families:**

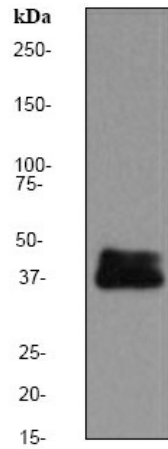
Druggable Genome, Phosphatase

**Protein Pathways:**

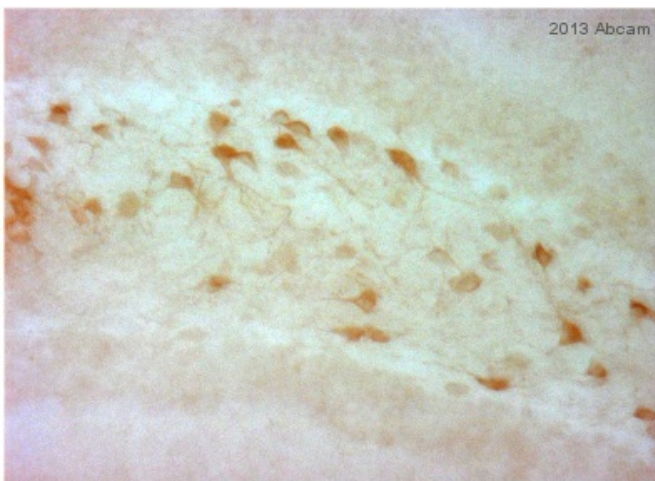
MAPK signaling pathway

**Product images:**


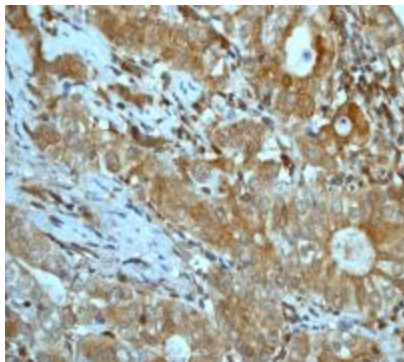
Western blot - Anti-DUSP6 antibody; All lanes : Anti-DUSP6 antibody at 1:4000. Lane 1 : Marker. Lane 2 : Lysate from wild type primary murine embryonic fibroblasts (MEFs) untreated at 10 ug. Lane 3 : Lysate from wild type primary MEFs treated with TPA for 2 hours at 10 ug. Lane 4 : Lysate from MKP-3 null primary MEFs untreated at 10 ug. Lane 5 : Lysate from MKP-3 null primary MEFs treated with TPA for 2 hours at 10 ug.



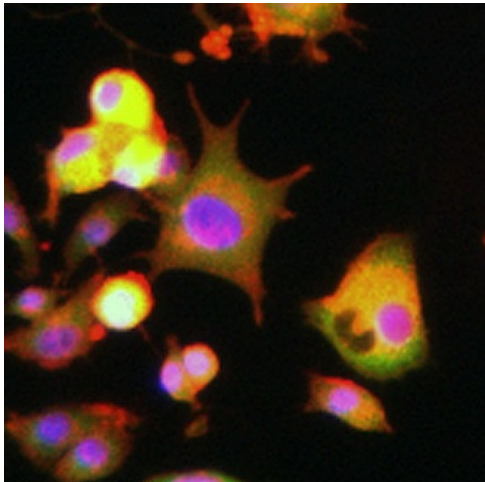
Western blot - DUSP6 antibody [EPR129Y]; Anti-DUSP6 antibody [EPR129Y] at 1/500 dilution + 3T3 cell lysate at 10 ug. Secondary.HRP labelled goat anti-rabbit at 1/2000 dilution.Predicted band size : 42 kDa.Observed band size : 42/44 kDa.



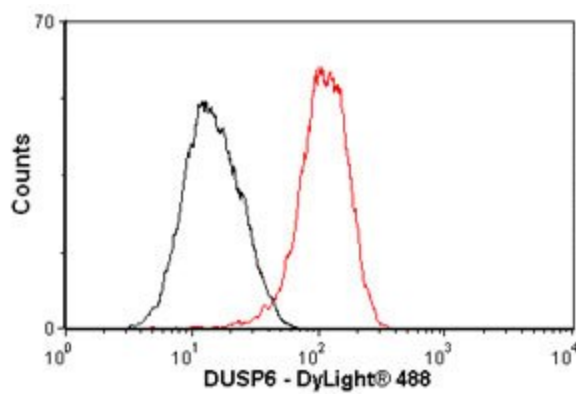
Immunohistochemistry (PFA perfusion fixed frozen sections) - Anti-DUSP6 antibody [EPR129Y]; Immunohistochemistry (PFA perfusion fixed frozen sections) analysis of Mouse brain tissue sections labelling DUSP6 with TA301017 at 1/400 dilution for 14 hours at 4°C. A biotinylated polyclonal anti-rabbit IgG was used as the secondary antibody at 1/250 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - DUSP6 antibody [EPR129Y]; Immunohistochemical staining of paraffin-embedded human gastric carcinoma using TA301017 at 1/50 dilution.



ICC/IF image of TA301017 stained PC12 cells. The cells were incubated with the antibody overnight at 4. The secondary antibody (green) was Alexa Fluor 488 goat anti-rabbit IgG (H+L) used at 1:1000 for 1h. Alexa Fluor 594 WGA was used to label plasma membranes (red) at 1:200 for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43uM.



Flow Cytometry-DUSP6 antibody (TA301017); Overlay histogram showing HeLa cells stained with TA301017 (red line). The secondary antibody used was DyLight 488 goat anti-rabbit IgG (H+L) at 1:500. Isotype control antibody (black line) was rabbit monoclonal IgG (1ug/1x10<sup>6</sup> cells) used under the same conditions. This antibody gave a positive signal in HeLa cells fixed with 4% paraformaldehyde/permeabilized with 0.1% PBS-Tween 20 used under the same conditions.