

ERK3 / MAPK6 Antibody (internal region, near C-Term) Peptide-affinity purified goat antibody Catalog # AF3922a

### **Specification**

## ERK3 / MAPK6 Antibody (internal region, near C-Term) - Product Information

Application Primary Accession Other Accession

Reactivity Predicted Host Clonality Concentration Isotype Calculated MW WB, IP, E <u>Q16659</u> <u>NP\_002739.1</u>, <u>5597</u>, <u>50772 (mouse)</u>, <u>58840</u> (<u>rat</u>) Mouse Human, Rat, Pig, Dog Goat Polyclonal 0.5 mg/ml IgG 82681

### ERK3 / MAPK6 Antibody (internal region, near C-Term) - Additional Information

Gene ID 5597

**Other Names** Mitogen-activated protein kinase 6, MAP kinase 6, MAPK 6, 2.7.11.24, Extracellular signal-regulated kinase 3, ERK-3, MAP kinase isoform p97, p97-MAPK, MAPK6, ERK3, PRKM6

Dilution WB~~1:1000 IP~~N/A E~~N/A

**Format** 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** 

ERK3 / MAPK6 Antibody (internal region, near C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

### ERK3 / MAPK6 Antibody (internal region, near C-Term) - Protein Information

Name MAPK6

Synonyms ERK3, PRKM6



### Function

Atypical MAPK protein. Phosphorylates microtubule-associated protein 2 (MAP2) and MAPKAPK5. The precise role of the complex formed with MAPKAPK5 is still unclear, but the complex follows a complex set of phosphorylation events: upon interaction with atypical MAPKAPK5, ERK3/MAPK6 is phosphorylated at Ser-189 and then mediates phosphorylation and activation of MAPKAPK5, which in turn phosphorylates ERK3/MAPK6. May promote entry in the cell cycle (By similarity).

#### **Cellular Location**

Cytoplasm. Nucleus. Note=Translocates to the cytoplasm following interaction with MAPKAPK5

#### **Tissue Location**

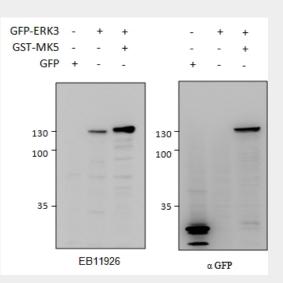
Highest expression in the skeletal muscle, followed by the brain. Also found in heart, placenta, lung, liver, pancreas, kidney and skin fibroblasts

### ERK3 / MAPK6 Antibody (internal region, near C-Term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

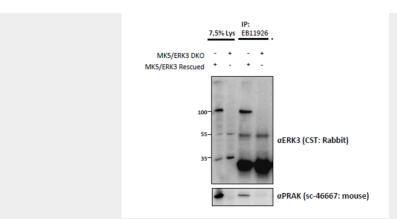
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

ERK3 / MAPK6 Antibody (internal region, near C-Term) - Images



HEK293 lysate (10ug protein in RIPA buffer) overexpressing GFP-fused Mouse ERK3 probed with AF3922a (0.5ug/ml) in left panel and with anti-GFP in right panel. GFP-only exression in the first lane. Primary incubations were for 2 hours. Detected by chemiluminescence.





AF3922a (1.5ug) immunoprecipitation from lysates of MK5/ERK3 double knockout MEFs, with (third lane) and without (fourth lane) rescued MK5/ERK3 expression through retroviral transduction. The corresponding lysates (first and second lane resp.) were analyzed in parallel in this Western blot labelled with rabbit anti-Erk3 (and co-precipitation was measured using mouse anti-MK5/PRAK in the lower panel).

### ERK3 / MAPK6 Antibody (internal region, near C-Term) - Background

Reported variants represent identical protein (NP\_056621.4; NP\_081694.1).

# ERK3 / MAPK6 Antibody (internal region, near C-Term) - References

The extracellular signal-regulated kinase 3 (mitogen-activated protein kinase 6 [MAPK6])-MAPK-activated protein kinase 5 signaling complex regulates septin function and dendrite morphology. Brand F, Schumacher S, Kant S, Menon MB, Simon R, Turgeon B, Britsch S, Meloche S, Gaestel M, Kotlyarov A. Mol Cell Biol. 2012 Jul;32(13):2467-78. PMID: 22508986