

**Phospho-ERK3-S189 Antibody**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP3098a**

**Specification**

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**Phospho-ERK3-S189 Antibody - Product Information**

Application	IHC-P,E
Primary Accession	<a href="#">Q16659</a>
Other Accession	<a href="#">P27704</a> , <a href="#">Q61532</a> , <a href="#">Q5F3W3</a>
Reactivity	Human
Predicted	Chicken, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

**Phospho-ERK3-S189 Antibody - Additional Information**

**Gene ID** 5597

**Other Names**

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

**Target/Specificity**

This Phospho-ERK3-S189 antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S189 of human ERK3.

**Dilution**

IHC-P~~1:50~100

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

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

**Precautions**

Phospho-ERK3-S189 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Phospho-ERK3-S189 Antibody - 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**

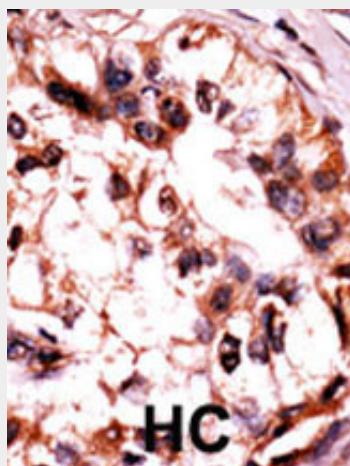
Highest expression in the skeletal muscle, followed by the brain. Also found in heart, placenta, lung, liver, pancreas, kidney and skin fibroblasts

### **Phospho-ERK3-S189 Antibody - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **Phospho-ERK3-S189 Antibody - Images**



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

### **Phospho-ERK3-S189 Antibody - Background**

ERK3 is a member of the Ser/Thr protein kinase family, and is most closely related to mitogen-activated protein kinases (MAP kinases). MAP kinases also known as extracellular signal-regulated kinases (ERKs), are activated through protein phosphorylation cascades and act as integration points for multiple biochemical signals. This kinase is localized in the nucleus, and has

been reported to be activated in fibroblasts upon treatment with serum or phorbol esters.

### **Phospho-ERK3-S189 Antibody - References**

Rai, R., et al., Oral Oncol. 40(7):705-712 (2004).  
Coulombe, P., et al., Mol. Cell. Biol. 24(14):6140-6150 (2004).  
Coulombe, P., et al., Mol. Cell. Biol. 23(13):4542-4558 (2003).  
Julien, C., et al., J. Biol. Chem. 278(43):42615-42624 (2003).  
Robinson, M.J., et al., J. Biol. Chem. 277(7):5094-5100 (2002).

### **Phospho-ERK3-S189 Antibody - Citations**

- [A versatile nanoplatform for synergistic combination therapy to treat human esophageal cancer.](#)
- [Regulation of atypical MAP kinases ERK3 and ERK4 by the phosphatase DUSP2.](#)
- [Identification of the atypical MAPK Erk3 as a novel substrate for p21-activated kinase \(Pak\) activity.](#)
- [Genetic inhibition of cardiac ERK1/2 promotes stress-induced apoptosis and heart failure but has no effect on hypertrophy in vivo.](#)
- [\[Measurement of internal voids in impression material using a digital image analyzer. Part 1. Investigation of the measurement system of a digital image analyzer\].](#)