

#### MAPKAPK3, Active recombinant protein

MAPKAPK, mitogen-activated protein kinase-activated protein kinase 3 Catalog # PBV11330r

## **Specification**

# MAPKAPK3, Active recombinant protein - Product info

Primary Accession O16644
Concentration O.1

Calculated MW 69.0 kDa KDa

### MAPKAPK3, Active recombinant protein - Additional Info

Gene ID **7867** 

Gene Symbol MAPKAPK3

**Other Names** 

MAPKAPK, mitogen-activated protein kinase-activated protein kinase 3

Source Baculovirus (Sf9 insect cells)

Assay&Purity SDS-PAGE; ≥90%

Assay2&Purity2 HPLC; Recombinant Yes

**Format** Liquid

#### Storage

-80°C; Recombinant proteins in storage buffer (50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 0.25 mM DTT, 0.1 mM EGTA, 0.1 mM EDTA, 0.1 mM PMSF, 25% glycerol).

# MAPKAPK3, Active recombinant protein - Protocols

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

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

# **MAPKAPK3**, Active recombinant protein - Images

# MAPKAPK3, Active recombinant protein - Background

MAPKAPK3 has a single potential SH3-binding site in the proline-rich N terminus, a putative ATP-binding site, 2 MAP kinase phosphorylation site motifs, and a putative nuclear localization signal. It shares 72% nucleotide and 75% amino acid identity with MAPKAPK2 (1). MAPKAPK3 was shown to be activated by growth inducers and stress stimulation of cells. In vitro studies





Tel: 858.875.1900 Fax: 858.875.1999

demonstrated that ERK, p38 MAP kinase and Jun N-terminal kinase were all able to phosphorylate and activate this kinase, which suggested the role of this kinase as an integrative element of signaling in both mitogen and stress responses (2). This kinase was reported to interact with, phosphorylate and repress the activity of E47, which is a basic helix-loop-helix transcription factor known to be involved in the regulation of tissue-specific gene expression and cell differentiation (3). MAPKAPK3 is uniquely poised to support luteal maturation through the phosphorylation and activation of the nuclear transcription factor CREB (4).

# MAPKAPK3, Active recombinant protein - References

McLaughlin M.M., et al.J. Biol. Chem. 271:8488-8492(1996). Sithanandam G., et al. Mol. Cell. Biol. 16:868-876(1996). Sithanandam G., et al. Mol. Cell. Biol. 16:1880-1880(1996). Goshima N., et al. Nat. Methods 5:1011-1017(2008). Mural R.J., et al. Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.