

**SEK1/MKK4/JKK1 Blocking Peptide**  
**Catalog # PBV10401b****Specification**

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**SEK1/MKK4/JKK1 Blocking Peptide - Product Information**

Primary Accession	<a href="#">P47809</a>
Other Accession	<a href="#">EDL10407</a>
Gene ID	<b>26398</b>
Calculated MW	<b>44114</b>

**SEK1/MKK4/JKK1 Blocking Peptide - Additional Information****Gene ID** 26398**Application & Usage**

The peptide is used for blocking the antibody activity of SEK1/MKK4/JKK1. It usually blocks the antibody activity completely in Western blot analysis by incubating the peptide with equal volume of antibody for 30-60 minutes at 37°C.

**Other Names**

Dual specificity mitogen-activated protein kinase kinase 4, MAP kinase kinase 4, MAPKK 4, 2.7.12.2, C-JUN N-terminal kinase kinase 1, JNK kinase 1, JNKK 1, JNK-activating kinase 1, MAPK/ERK kinase 4, MEK 4, SAPK/ERK kinase 1, SEK1, Map2k4, Jnkk1, Mek4, Mkk4, Prkmk4, Sek1, Serk1, Skk1

**Target/Specificity**

SEK1/MKK4/JKK1

**Formulation**

50 µg (0.5 mg/ml) in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA and 0.02% thimerosal.

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

SEK1/MKK4/JKK1 Blocking Peptide is for research use only and not for use in diagnostic or therapeutic procedures.

**SEK1/MKK4/JKK1 Blocking Peptide - Protein Information****Name** Map2k4**Synonyms** Jnkk1, Mek4, Mkk4, Prkmk4, Sek1, Serk1,

**Function**

Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. Essential component of the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway. With MAP2K7/MKK7, is the one of the only known kinase to directly activate the stress-activated protein kinase/c-Jun N-terminal kinases MAPK8/JNK1, MAPK9/JNK2 and MAPK10/JNK3. MAP2K4/MKK4 and MAP2K7/MKK7 both activate the JNKs by phosphorylation, but they differ in their preference for the phosphorylation site in the Thr-Pro-Tyr motif. MAP2K4 shows preference for phosphorylation of the Tyr residue and MAP2K7/MKK7 for the Thr residue. The phosphorylation of the Thr residue by MAP2K7/MKK7 seems to be the prerequisite for JNK activation at least in response to pro-inflammatory cytokines, while other stimuli activate both MAP2K4/MKK4 and MAP2K7/MKK7 which synergistically phosphorylate JNKs. MAP2K4 is required for maintaining peripheral lymphoid homeostasis. The MKK/JNK signaling pathway is also involved in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis. Whereas MAP2K7/MKK7 exclusively activates JNKs, MAP2K4/MKK4 additionally activates the p38 MAPKs MAPK11, MAPK12, MAPK13 and MAPK14.

**Cellular Location**

Cytoplasm. Nucleus

**Tissue Location**

Strong expression is detected in most of the central nervous system and in liver and thymus during early stages of development. While expression in nervous system increases over time, expression in fetal liver and thymus gradually decreases as embryogenesis proceeds. High level of expression in the central nervous system persists throughout postnatal development and remained at a stable level in adult brain.

**SEK1/MKK4/JKK1 Blocking Peptide - 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](#)

**SEK1/MKK4/JKK1 Blocking Peptide - Images**