

## Recombinant Human MAP4K5 protein (His Tag)

**Catalog Number:** PDEH101049

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

### Description

<b>Species</b>	Human
<b>Source</b>	E.coli-derived Human MAP4K5 protein Phe601-Tyr846, with an N-terminal His & C-terminal His
<b>Calculated MW</b>	27.0 kDa
<b>Observed MW</b>	35 kDa
<b>Accession</b>	Q9Y4K4
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 10 EU/mg of the protein as determined by the LAL method
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Background

Mitogen-activated protein kinase kinase kinase kinase 5, also known as Kinase homologous to SPS1/STE20, MAPK/ERK kinase kinase kinase 5, MEK kinase kinase 5 and MAP4K5, is a cytoplasm protein which belongs to the protein kinase superfamily, STE Ser/Thr protein kinase family and STE20 subfamily. MAP4K5 is ubiquitously expressed in all tissues examined, with high levels in the ovary, testis and prostate. It contains one CNH domain and one protein kinase domain. MAP4K5 is highly similar to yeast SPS1/STE20 kinase. Yeast SPS1/STE20 functions near the beginning of the MAP kinase signal cascades that is essential for yeast pheromone response. MAP4K5 has been shown to interact with CRKL and TRAF2. This kinase was shown to activate Jun kinase in mammalian cells. MAP4K5 is an early component of MAP kinase signal cascades. It may play a role in the response to environmental stress. MAP4K5 appears to act upstream of the JUN N-terminal pathway.