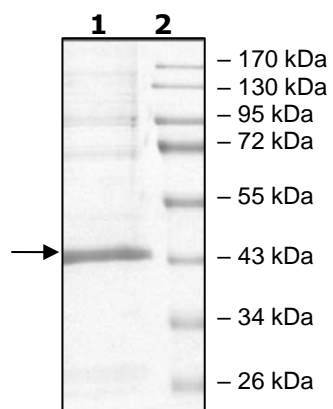


Product Information

Description:	Recombinant human full-length MKK4 (dual-specificity mitogen-activated protein kinase kinase 4, also known as MAP2K4 or MAPKK4). This construct contains an N-terminal His-tag. The recombinant protein was affinity purified and is active.
Species:	Human
Construct:	MKK4 (His-Full Length)
Concentration:	0.05 mg/ml
Expression System:	Sf9
Purity:	≥70%
Format:	Aqueous buffer solution.
Formulated In:	50 mM Sodium Phosphate, pH 7.0, 300 mM NaCl, 150 mM Imidazole, 0.25 mM DTT, 25% glycerol
MW:	46 kDa
Genbank Accession:	NM_003010
Stability:	At least 6 months at -80°C.
Storage:	-80°C
Instructions for Use:	Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles.
Specific Activity:	109 pmol/min/μg
Assay Conditions:	MKK4 activity was measured by using inactive 0.1 mg/ml JNK1 protein, diluted in 50 mM Tris-HCl, pH 7.5, 50 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF and 25% glycerol, in the ADP Glo™ kinase assay (Promega #V9101). Reaction was initiated by mixing increasing amounts of the MKK4 with 25 μM ATP in 40 mM Tris-HCl, pH 7.4, 25 mM MgCl ₂ , 0.1 mg/ml BSA prepared with 50 μM DTT and substrate at a final concentration of 20 μg/ml final concentration. After a 40-minute incubation at Room Temperature (RT), the reaction was terminated by addition of ADP-Glo™ Reagent, followed by a subsequent 40-minute incubation at RT. Kinase Detection Reagent was added, and the reaction was incubated for another 30 minutes at ambient temperature. Detection of luminescence was measured using the Luminescence Module Protocol on GloMax®-Multi Microplate Multimode Reader. The corrected activity (RLU) was calculated by removing the blank value for each sample. The Kinase Specific Activity was calculated as follows: $RLU / [(specific\ activity\ of\ ADP\ in\ RLU/pmol) * (Reaction\ time\ in\ min) * (Enzyme\ amount\ in\ \mu g\ or\ mg)]$. The blank was determined from a “no kinase” sample by replacing the enzyme solution with an equal volume of Kinase Dilution Buffer IX (1X).
Applications:	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

Quality Control Data

4-20% SDS-PAGE Coomassie Staining



Specific Activity

