

Recombinant Human MAP3K5 protein, MYC/DDK-tagged

Cat. No. MAP3K5-20H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human MAP3K5 fused with MYC/DDK tag at C-terminal was expressed in HEK293.
Species	Human
Source	HEK293
Description	Mitogen-activated protein kinase (MAPK) signaling cascades include MAPK or extracellular signal-regulated kinase (ERK), MAPK kinase (MKK or MEK), and MAPK kinase kinase (MAPKKK or MEKK). MAPKK kinase/MEKK phosphorylates and activates its downstream protein kinase, MAPK kinase/MEK, which in turn activates MAPK. The kinases of these signaling cascades are highly conserved, and homologs exist in yeast, Drosophila, and mammalian cells. MAPKKK5 contains 1,374 amino acids with all 11 kinase subdomains. Northern blot analysis shows that MAPKKK5 transcript is abundantly expressed in human heart and pancreas. The MAPKKK5 protein phosphorylates and activates MKK4 (aliases SERK1, MAPKK4) in vitro, and activates c-Jun N-terminal kinase (JNK)/stress-activated protein kinase (SAPK) during transient expression in COS and 293 cells; MAPKKK5 does not activate MAPK/ERK.
Form	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Molecular Mass	154.4 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining

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Notes	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Concentration	>50 ug/mL as determined by microplate BCA method
GENE INFORMATION	
Gene Name	MAP3K5 mitogen-activated protein kinase kinase kinase 5 [Homo sapiens]
Official Symbol	MAP3K5
Synonyms	MAP3K5; mitogen-activated protein kinase kinase kinase 5; MEKK5; apoptosis signal regulating kinase 1; ASK1; MAPKKK5; ASK-1; MEKK 5; MEK kinase 5; MAP/ERK kinase kinase 5; MAPK/ERK kinase kinase 5; apoptosis signal-regulating kinase 1;
Gene ID	4217
mRNA Refseq	NM_005923
Protein Refseq	NP_005914
MIM	602448
UniProt ID	Q99683
Chromosome Location	6q22.33
Pathway	Amyotrophic lateral sclerosis (ALS), organism-specific biosystem; Amyotrophic lateral sclerosis (ALS), conserved biosystem; Class I PI3K signaling events mediated by Akt, organism-specific biosystem; HIV-1 Nef: Negative effector of Fas and TNF-alpha,

organism-specific biosystem; Insulin Signaling, organism-specific biosystem; MAPK signaling pathway, organism-specific biosystem; MAPK signaling pathway, organism-specific biosystem;

Function

ATP binding; MAP kinase kinase kinase activity; cysteine-type endopeptidase activator activity involved in apoptotic process; magnesium ion binding; nucleotide binding; protein binding; protein homodimerization activity; protein kinase activity; protein kinase binding; protein phosphatase binding; protein serine/threonine kinase activity;

