

Active Recombinant Full Length Human MAPKAPK3 Protein, C-Flag-tagged

Cat. No. MAPKAPK3-523HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human MAPKAPK3 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	This gene encodes a member of the Ser/Thr protein kinase family. This kinase functions as a mitogen-activated protein kinase (MAP kinase)- activated protein kinase. MAP kinases are also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals. This kinase was shown to be activated by growth inducers and stress stimulation of cells. In vitro studies 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. 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. Alternate splicing results in multiple transcript variants that encode the same protein.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Bio-activity	MAPKAPK3 activity verified in a biochemical assay: MAPKAPK3 (mitogen-activated

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protein kinase-activated protein kinase 3) activity was measured in a homogeneous time-resolved fluorescent (HTRF®) assay. MAPKAPK3 is a serine/threonine kinase that functions as a mitogen-activated protein kinase (MAP kinase)- activated protein kinase. Varying concentrations of MAPKAPK3 were added to a reaction mix containing ATP and a biotinylated kinase substrate and the reaction mixture was incubated to allow the protein to phosphorylate the substrate. HTRF detection reagents were then added, and the time-resolved fluorescent signal was measured on a Flexstation 3 microplate reader. The time resolved fluorescent signal is expressed as “delta R” or “ΔR” and is a ratio calculated from the fluorescent emission intensities of the donor and acceptor fluors.

Molecular Mass	42.8 kDa
AA Sequence	MDGETAEEQGGPVPPPVPAPGGPGLGGAPGGRREPCKYAVTDDYQLSKQVLGLGV NGKVLECFHRRTGQKC ALKLLYDSPKARQEVDDHHWQASGGPHIVCILDVYENMHH GKRCLLIIMECEMGGELFSRIQERGDQAFTE REAAEIMRDIGTAIQFLHSHNIAHRDV KPENLLYTSKEKDAVLKLTDFGFAKETTQNALQTPCYTPYYVA PEVLGPEKYDKSC DMWSLGVIMYILLCGFPFYSNTGQAISPGMKRRIRLGQYGFPNPEWSEVSEDAKQ L IRLLLKTDPTERTITQFMNHPWINQSMVVPQTPLHTARVLQEDKDKHWDEVKEEM TSALATMRVDYDQVK IKDLKTSNNRLLNKRRKKQAGSSSASQGCNNQTRTRPLEQKLISEEDLAANDILDYK DDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.

Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Protein Families	Druggable Genome, Protein Kinase
Protein Pathways	MAPK signaling pathway, VEGF signaling pathway
Full Length	Full L.

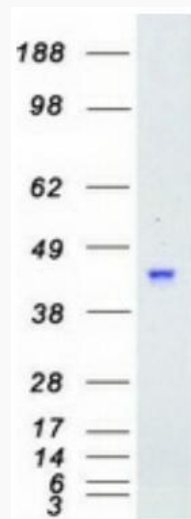
GENE INFORMATION

Gene Name	MAPKAPK3 MAPK activated protein kinase 3 [Homo sapiens (human)]
Official Symbol	MAPKAPK3
Synonyms	3PK; MK3; MK-3; MDPT3; MAPKAP3; MAPKAP-K3; MAPKAPK-3
Gene ID	7867
mRNA Refseq	NM_004635.5
Protein Refseq	NP_004626.1
MIM	602130
UniProt ID	Q16644

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Coomassie blue staining of purified MAPKAPK3 protein.