

Recombinant Human Mitogen-Activated Protein Kinase-Activated Protein Kinase 3, His-tagged

MAPKAPK3-1268H Human

Lot. No. (See product label)

Specification

| | |
|--------------------------|--|
| Product Overview | Recombinant humanfull length MAPKAPK3, His-tagged. |
| Description | MAPKAPK3 encodes a member of the Ser/Thr proteinkinase family. This kinase functions as a mitogen-activated protein kinase(MAP kinase)- activated protein kinase. MAPKAPK3 are also known as extracellular signal-regulated kinases (ERKs), actas an integration point for multiple biochemical signals. This kinase wasshown to be activated by growth inducers and stress stimulation of cells. Invitro studies demonstrated that ERK, p38 MAP kinase and Jun N-terminal kinasewere all able to phosphorylate and activate this kinase, which suggested therole of this kinase as an integrative element of signaling in both mitogenand stress responses. This kinase was reported to interact with,phosphorylate and repress the activity of E47, which is a basichelix-loop-helix transcription factor known to be involved in the regulationof tissue-specific gene expression and cell differentiation. |
| Source | Insect cells |
| Species | Human |
| Form | Liquid in 50 mMTris, pH 7.5 + 150 mM NaCl + 0.05 mM EDTA + 0.05% Triton X-100 + 2 mM DTT +50% glycerol |
| Molecular Weight | 47.3 kDa |
| Concentration | 0.42 mg/ml |
| Purity | ≥ 90% as determinedby SDS-PAGE analysis |
| Specific Activity | 660 nmole ofphosphate transferred to MAPKAPK2 substrate peptide (KKLNRTLVA) per minuteper mg of total protein at 30°C. Activity determined at a final proteinconcentration of 1.67 µg/ml. |
| Storage | Stable for 6 monthsin working aliquots at -80°C. Avoid repeated freeze-thaw cycles. |
| OfficialSymbol | MAPKAPK3 |

Gene Information

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|------------------|---|
| Gene Name | MAPKAPK3 mitogen-activatedprotein kinase-activated protein kinase 3 [Homo sapiens] |
| Synonyms | MAPKAPK3;mitogen-activated protein kinase-activated protein kinase 3; 3PK; MAPKAP3;MAPKAPK-3; MAP kinase-activated protein kinase 3; MAPKAP kinase 3;OTTHUMP00000210805; OTTHUMP00000210806; OTTHUMP00000210807; chromosome 3pkinase; MAPK-activated protein kinase 3; EC 2.7.11.1; EC 2.7.11 |
| Gene ID | 7867 |

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| | |
|----------------------------|---|
| mRNA Refseq | NM_004635 |
| Protein Refseq | NP_004626 |
| MIM | 602130 |
| UniProt ID | Q16644 |
| Chromosome Location | 3p21.3 |
| Pathway | Activated TLR4 signalling; FAS pathway and Stress induction of HSP regulation; Immune System; Innate Immune System; MAP kinase activation in TLR cascade; MAPK signaling pathway; MyD88 cascade initiated on plasma membrane; MyD88 dependent cascade initiated on endosome; NFkB and MAP kinases activation mediated by TLR4 signaling repertoire; Signal Transduction; Signalling to ERKs; TRAF6 Mediated Induction of proinflammatory cytokines; TRIF mediated TLR3 signaling; Toll Like Receptor TLR6; VEGF signaling pathway; p38MAPK events |
| Function | ATP binding; MAP kinase activity; nucleotide binding; protein binding; protein serine/threonine kinase activity |

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