Recombinant Human Mitogen-Activated Protein Kinase 14, His-tagged

Cat. No. MAPK14-5307H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant humanactive p38-alpha MAPK (amino acids 1 to 360) has a MW 40 kDa and anamino-terminal polyhistidine tag.
Species	Human
Source	Sf9 Cells
ProteinLength	1-360 a.a.
Description	MAPK14, also called p38-α, is an enzyme that inhumans is encoded by the MAPK14 gene. The protein encoded by this gene is amember of the MAP kinase family. MAP kinases act as an integration point formultiple biochemical signals, and are involved in a wide variety of cellularprocesses such as proliferation, differentiation, transcription regulationand development. This kinase is activated by various environmental stressesand proinflammatory cytokines.
Form	Liquid in 50 mM Tris,pH 7.6 + 0.15 M NaCl + 0.27 M sucrose + 1 mM DTT + 0.1 Mm EGTA + 0.2 mM PMSF+ 1 mM benzamidine + 5 mM NaF + 10 mM beta-glycerol phosphate + 0.1 mM sodiumvanadate + 0.03% Brij-35, carrier-free, sterile filtered through a 0.22micron filter.
Molecular Weight	40 kDa
Concentration	0.1 mg/ml

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Purity	Greater than 95% asdetermined by SDS-PAGE analysis.
Biological Activity	230 units/mg. Oneunit of p38-alpha MAPK activity is equal to 1 nmol of phosphate transferredto recombinant ATF-2 fusion protein per minute at 30°C with a final ATP concentrationof 100 μM. Recombinant human active p38-alpha MAPK has also been shown tophosphorylate Elk-1, STAT1, and MAPKAP kinase 2. Kinase activity may vary dependingon the substrate and reaction conditions. The optimal concentration should bedetermined for each specific application.
Storage	Centrifuge vialprior to opening. Store ≤-80°C. Liquid recombinant human activep38-alpha MAPK should be kept as a solution in order to maintain fullactivity. This stock solution should be apportioned into working aliquots andstored ≤-80°C. Avoid repeated freeze-thaw cycles.
OfficialSymbol	MAPK14

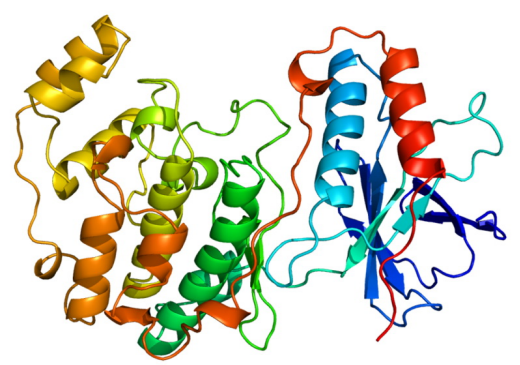
GENE INFORMATION

Gene Name	MAPK14 mitogen-activated proteinkinase 14 [Homo sapiens]
Synonyms	MAPK14;mitogen-activated protein kinase 14; RK; p38; CSBP; EXIP; Mxi2; CSBP1; CSBP2;CSPB1; PRKM14; PRKM15; SAPK2A; p38ALPHA; MAP kinase 14; p38alpha Exip; p38MAP kinase; MAP kinase Mxi2; OTTHUMP00000216561; OTTHUMP00000216562; OTTHUMP00000216563;OTTHUMP00000216564; OTTHUMP00000216566; MAP kinase p38 alpha; CSAID-bindingprotein; Csaids binding protein; MAX-interacting protein 2; stress-activatedprotein kinase 2A; p38 mitogen activated protein kinase; mitogen-activatedprotein kinase p38 alpha; cytokine suppressive anti-inflammatory drug bindingprotein; cytokine suppressive anti-inflammatory drug-binding protein; EC2.7.11.24

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Gene ID	1432
mRNA Refseq	NM_001315
Protein Refseq	NP_001306
MIM	600289
UniProt ID	Q16539
Chromosome Location	6p21.3-p21.2
Pathway	ADP signallingthrough P2Y purinoceptor 1; Angiopoietin receptor Tie2-mediated signaling; BCell Receptor Signaling Pathway; Cell-Cell communication; Destabilization ofmRNA by KSRP; EGFR1 Signaling Pathway; FAS (CD95) signaling pathway;Glucocorticoid receptor regulatory network; Hemostasis; IL-2 SignalingPathway; Leishmaniasis; MAPK signaling pathway; NOD-like receptor signalingpathway; Platelet sensitization by LDL; Regulation of retinoblastoma protein
Function	ATP binding; MAPkinase activity; MAP kinase kinase activity; nucleotide binding; proteinbinding; protein serine/threonine kinase activity

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