

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

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

SPECIFICATION

Product Overview	Recombinant human active p38- α MAPK (amino acids 1 to 360) has a MW 40 kDa and an amino-terminal polyhistidine tag.
Species	Human
Source	Sf9 Cells
Protein Length	1-360 a.a.
Description	MAPK14, also called p38- α , is an enzyme that in humans is encoded by the MAPK14 gene. The protein encoded by this gene is a member of the MAP kinase family. MAP kinases act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. This kinase is activated by various environmental stresses and 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 sodium vanadate + 0.03% Brij-35, carrier-free, sterile filtered through a 0.22 micron filter.
Molecular Weight	40 kDa
Concentration	0.1 mg/ml

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Purity	Greater than 95% as determined by SDS-PAGE analysis.
Biological Activity	230 units/mg. One unit of p38-alpha MAPK activity is equal to 1 nmol of phosphate transferred to recombinant ATF-2 fusion protein per minute at 30°C with a final ATP concentration of 100 μ M. Recombinant human active p38-alpha MAPK has also been shown to phosphorylate Elk-1, STAT1, and MAPKAP kinase 2. Kinase activity may vary depending on the substrate and reaction conditions. The optimal concentration should be determined for each specific application.
Storage	Centrifuge vial prior to opening. Store $\leq -80^{\circ}\text{C}$. Liquid recombinant human active p38-alpha MAPK should be kept as a solution in order to maintain full activity. This stock solution should be apportioned into working aliquots and stored $\leq -80^{\circ}\text{C}$. Avoid repeated freeze-thaw cycles.

Official Symbol	MAPK14
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GENE INFORMATION

Gene Name	MAPK14 mitogen-activated protein kinase 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-binding protein; Csaids binding protein; MAX-interacting protein 2; stress-activated protein kinase 2A; p38 mitogen activated protein kinase; mitogen-activated protein kinase p38 alpha; cytokine suppressive anti-inflammatory drug binding protein; cytokine suppressive anti-inflammatory drug-binding protein; EC2.7.11.24

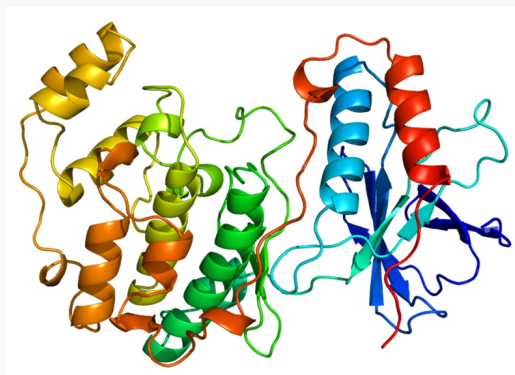
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Gene ID	1432
mRNA Refseq	NM_001315
Protein Refseq	NP_001306
MIM	600289
UniProt ID	Q16539
Chromosome Location	6p21.3-p21.2
Pathway	ADP signallingthrough P2Y purinoceptor 1; Angiopoietin receptor Tie2-mediated signaling; BCell Receptor Signaling Pathway; 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

PDB rendering
based on 1a9u.



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