

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

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

SPECIFICATION

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| 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 benzamide + 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 μM. 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 ≤-80°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 ≤-80°C. Avoid repeated freeze-thaw cycles. |
| Official Symbol | MAPK14 |

GENE INFORMATION

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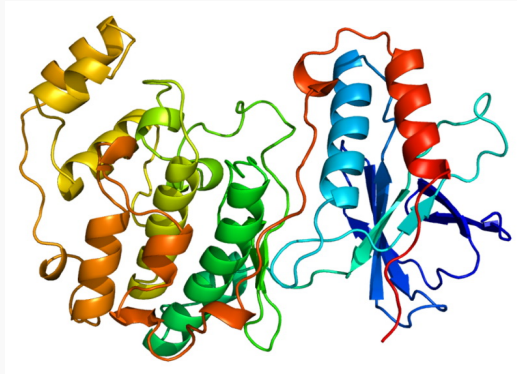
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|----------------------------|---|
| Gene ID | 1432 |
| mRNA Refseq | NM_001315 |
| Protein Refseq | NP_001306 |
| MIM | 600289 |
| UniProt ID | Q16539 |
| Chromosome Location | 6p21.3-p21.2 |
| Pathway | ADP signalling through P2Y purinoceptor 1;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

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