

## Recombinant Human MAPK14(K53A), His-tagged, Unactive

Cat. No. MAPK14-27H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant human full-length mutant p38 alpha (K53A) was expressed in E. coli using an N-terminal His tag. This kinase-dead protein is designed for up-stream kinase assay.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	<p>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. The activation requires its phosphorylation by MAP kinase kinases (MKKs), or its autophosphorylation triggered by the interaction of MAP3K7IP1/TAB1 protein with this kinase. The substrates of this kinase include transcription regulator ATF2, MEF2C, and MAX, cell cycle regulator CDC25B, and tumor suppressor p53, which suggest the roles of this kinase in stress related transcription and cell cycle regulation, as well as in genotoxic stress response. Four alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported.</p>
<b>Form</b>	Recombinant protein stored in 50mM Tris-HCl, pH 7.0, 300mM NaCl, 150mM imidazole, 0.1mM PMSF, 2mM DTT, 25% glycerol.

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<b>Molecular Mass</b>	~42 kDa
<b>Purity</b>	>90%
<b>Applications</b>	Kinase Assay, Western Blot
<b>Stability</b>	1 yr at -70°C from date of shipment.
<b>Storage</b>	Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
<b>Concentration</b>	0.2 ug/ul

## GENE INFORMATION

<b>Gene Name</b>	MAPK14 mitogen-activated protein kinase 14 [ Homo sapiens (human) ]
<b>Official Symbol</b>	MAPK14
<b>Synonyms</b>	MAPK14; mitogen-activated protein kinase 14; RK; p38; EXIP; Mxi2; CSBP1; CSBP2; CSPB1; PRKM14; PRKM15; SAPK2A; p38ALPHA; p38 MAP kinase; p38alpha Exip; MAP kinase Mxi2; Csaids binding protein; MAX-interacting protein 2; stress-activated protein kinase 2A; p38 mitogen activated protein kinase; cytokine suppressive anti-inflammatory drug binding protein; EC 2.7.11.24; Mitogen-activated protein kinase p38 alpha; CSAID-binding protein MAP kinase p38 alpha; MAP kinase MXI2; CSBP; MXI2
<b>Gene ID</b>	1432
<b>mRNA Refseq</b>	NM_139012

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<b>Protein Refseq</b>	NP_620581
<b>MIM</b>	600289
<b>UniProt ID</b>	Q16539
<b>Chromosome Location</b>	6p21.3-p21.2
<b>Pathway</b>	ADP signalling through P2Y purinoceptor 1; ATF-2 transcription factor network; Activation of the AP-1 family of transcription factors
<b>Function</b>	ATP binding; MAP kinase activity; MAP kinase kinase activity

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