Recombinant human biotinylated MAPK11, His-tagged

Cat. No. MAPK11-29H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human biotinylated full lenght p38 beta, N-terminally fused to HIS, was expressed in E.coli. Biotinylated protein is not phosphorylated and activated by MKKs. Suitable for kinase molecule interaction analyses using SPR, as substrate for kinase activity assays and for western blot analyses.
Species	Human
Source	E.coli
Description	The p38 MAPK (mitogen-activated protein kinase) pathway contains protein kinases which engage in respond to various extracellular stimuli an intracellular signalling cascade, coordinating the activation of gene transcription, protein synthesis, cell cycle machinery, cell death, and differentiation. The different p38 MAPK family members (p38α, p38β, p38γ, p38δ) encoded by different genes show an approximately 60% identical in their amino acid sequence but have different tissue expression patterns. p38 MAPKs being activated by dual phosphorylation of the Thr-Gly-Tyr in the activation loop sequence by MKKs/MAP2Ks (MKK6 and MKK3). Down-regulation of p38 MAPK is achieved for instance by Wip1, a phosphatase of the PP2C family that can be transcriptionally up-regulated by p53 or by MKPs, a family of dual-specificity protein phosphatases. Upon activation p38 MAP kinases can phosphorylate substrates on Ser-Pro or Thr-Pro motifs on MSK1 and 2, which directly phosphorylate the transcription factors CREB, ATF1, or cytosolic proteins such as phospholipase A2, Bcl-2 family proteins and cyclins. Because of the important role of p38α in inflammatory diseases it is also an interesting pharmaceutical target. Based on

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	SB203580, one of the first discovered p38α inhibitors structurally diverse p38α and p38β inhibitors have been developed with both enhanced potency and specificity.
Form	20 mM Tris-HCl, 150 mM NaCl, 2 mM DTT, 20% glycerol, pH 8.0.
Molecular Mass	42.7 kDa
AA Sequence	MASHHHHHHS GMSGPRAGFY RQELNKTVWE VPQRLQGLRP VGSGAYGSVC SAYDARLRQK VAVKKLSRPF QSLIHARRTY RELRLLKHLK HENVIGLLDV FTPATSIEDF SEVYLVTTLM GADLNNIVKC QALSDEHVQF LVYQLLRGLK YIHSAGIIHR DLKPSNVAVN EDCELRILDF GLARQADEEM TGYVATRWYR APEIMLNWMH YNQTVDIWSV GCIMAELLQG KALFPGSDYI DQLKRIMEVV GTPSPEVLAK ISSEHARTYI QSLPPMPQKD LSSIFRGANP LAIDLLGRML VLDSDQRVSA AEALAHAYFS QYHDPEDEPE AEPYDESVEA KERTLEEWKE LTYQEVLSFK PPEPPKPPGS LEIEQGS
Purity	>90%
Storage	- 80°C (avoid repeated freeze-thaw cycles !)
Concentration	0.5 mg/ml (Bradford method using BSA as standard protein)
Conjugation	Biotin

GENE INFORMATION

Gene Name	MAPK11 mitogen-activated protein kinase 11 [Homo sapiens]
Official Symbol	MAPK11
Synonyms	MAPK11; mitogen-activated protein kinase 11; PRKM11; p38 2; p38Beta; SAPK2;

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	MAPK 11; MAP kinase 11; MAP kinase p38 beta; stress-activated protein kinase 2; stress-activated protein kinase-2; stress-activated protein kinase 2b; stress-activated protein kinase-2b; mitogen-activated protein kinase p38-2; mitogen-activated protein kinase p38 beta; P38B; p38-2; SAPK2B; P38BETA2;
Gene ID	5600
mRNA Refseq	NM_002751
Protein Refseq	NP_002742
MIM	602898
UniProt ID	Q15759
Chromosome Location	22q13.33
Pathway	ATF-2 transcription factor network, organism-specific biosystem; Activated TLR4 signalling, organism-specific biosystem; Activation of the AP-1 family of transcription factors, organism-specific biosystem; Amyotrophic lateral sclerosis (ALS), organism-specific biosystem; Amyotrophic lateral sclerosis (ALS), conserved biosystem; CD40/CD40L signaling, organism-specific biosystem; CDO in myogenesis, organism-specific biosystem;
Function	ATP binding; MAP kinase activity; nucleotide binding; protein binding; protein serine/threonine kinase activity;

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