Recombinant Human MAPK10

Cat. No. MAPK10-27605TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human MAPK10 with N-terminal proprietary tag expressed in a Baculovirus infected Sf9 insect cell expression system; MWt 71 kDa.
Species	Human
Description	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 protein is a neuronal-specific form of c-Jun N-terminal kinases (JNKs). Through its phosphorylation and nuclear localization, this kinase plays regulatory roles in the signaling pathways during neuronal apoptosis. Beta-arrestin 2, a receptor-regulated MAP kinase scaffold protein, is found to interact with, and stimulate the phosphorylation of this kinase by MAP kinase kinase 4 (MKK4). Cyclin-dependent kianse 5 can phosphorylate, and inhibit the activity of this kinase, which may be important in preventing neuronal apoptosis. Four alternatively spliced transcript variants encoding distinct isoforms have been reported.
Tissue specificity	Specific to a subset of neurons in the nervous system. Present in the hippocampus and areas, cerebellum, striatum, brain stem, and weakly in the spinal cord. Very weak expression in testis and kidney.
Biological activity	The specific activity of MAPK10-27605TH was determined to be 3.8 nmol/min/mg

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Form	Liquid
Storage buffer	Preservative: NoneConstituents: 25% Glycerol, 50mM Tris HCl, 150mM Sodium chloride, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, pH 7.5
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequence Similarities	Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.Contains 1 protein kinase domain.
Full Length	Full L.

GENE INFORMATION

Gene Name	MAPK10 mitogen-activated protein kinase 10 [Homo sapiens]
Official Symbol	MAPK10
Synonyms	MAPK10; mitogen-activated protein kinase 10; PRKM10; JNK3; p54bSAPK; p493F12;
Gene ID	5602
mRNA Refseq	NM_002753
Protein Refseq	NP_002744
MIM	602897
Uniprot ID	P53779

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Chromosome Location	4q22-q23
Pathway	Activated TLR4 signalling, organism-specific biosystem; Activation of the AP-1 family of transcription factors, organism-specific biosystem; Adipocytokine signaling pathway, organism-specific biosystem; Adipocytokine signaling pathway, conserved biosystem; Apoptosis, organism-specific biosystem;
Function	ATP binding; JUN kinase activity; MAP kinase activity; MAP kinase kinase activity; nucleotide binding;

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