

Recombinant Human MAPK1, His-tagged

Cat. No. MAPK1-28700TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human MAPK1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
ProteinLength	1-360aa
Description	This gene encodes a member of the MAP kinase family. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), 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. The activation of this kinase requires its phosphorylation by upstream kinases. Upon activation, this kinase translocates to the nucleus of the stimulated cells, where it phosphorylates nuclear targets. One study also suggests that this protein acts as a transcriptional repressor independent of its kinase activity. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Two alternatively spliced transcript variants encoding the same protein, but differing in the UTRs, have been reported for this gene.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 1mM DTT, 0.1 M NaCl.
Molecular Mass	43.5 kDa (380aa), confirmed by MALDI-TOF.

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AA Sequence	MGSSHHHHHH SSGLVPRGSH MAAAAAAGAG PEMVRGQVFD VGPRYTNLSY IGEGAYGMVC SAYDNVNKVR VAIKKISPFE HQTTCQRTLREIKILLRFRH ENIIGINDII RAPTIEQMKD VYIVQDLMET DLYKLLKTQH LSNDHICYFL YQILRGLKYI HSANVLHRDL KPSNLLLNTTCDLKICDFGL ARVADPDHDH TGFLTEYVAT RWYRAPEIML NSKGYTKSID IWSVGCILAE MLSNRPIFPG KHYLDQLNHI LGILGSPSQEDLNCIINLKA RNYLLSLPHK NKVPWNRLFP NADSKALDLL DKMLTFNPHK RIEVEQALAH PYLEQYYDPS DEPIAEAPFK FDMELDDLPEKLEKELIFEE TARFQPGYRS
Purity	> 95% by SDS - PAGE
Storage	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.
Concentration	1 mg/ml (determined by Bradford assay)
GENE INFORMATION	
Gene Name	MAPK1 mitogen-activated protein kinase 1 [Homo sapiens]
Official Symbol	MAPK1
Synonyms	MAPK1; mitogen-activated protein kinase 1; ERK; p38; p40; p41; ERK2; ERT1; MAPK2; PRKM1; PRKM2; P42MAPK; p41mapk; p42-MAPK; MAP kinase 2; Mitogen- activated protein kinase 2; Extracellular signal-regulated kinase 2; OTTHUMP00000174492; MAP kinase 2; protein tyrosine kinase ERK2
Gene ID	5594
mRNA Refseq	NM_138957

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Protein Refseq	NP_620407
MIM	176948
UniProt ID	P28482
Chromosome Location	22q11.21
Pathway	AGE/RAGE pathway; ARMS-mediated activation; Acute myeloid leukemia
Function	RNA polymerase II carboxy-terminal domain kinase activity; mitogen-activated protein kinase kinase kinase binding; phosphatase binding

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