

Recombinant Human Mitogen-activated protein kinase 1, His tagged

Cat. No. MAPK1-529H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human MAPK1 protein, fused to His-tag at N-terminus, was expressed in <i>E.coli</i> and purified by using conventional chromatography techniques.
Species	Human
Source	<i>E.coli</i>
Description	MAPK1, also known as ERK(extracellular signal-regulated kinase), acts as an integration point for multiple biochemical signals, and is 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.
Sequences of amino acids	MGSSHHHHHH SSGLVPRGSH MAAAAAAGAG PEMVRGQVFD VGPRYTNLST IGEGAYGMVC SAYDNVNKVR VAIKKISPFE HQTTCQRTLR EIKILLRFRH ENIIGINDII RAPTIEQMKD VYIVQDLMET DLYKLLKTQH LSNDHICYFL YQILRGLKYI HSANVLHRDL KPSNLLLNTT CDLKICDFGL ARVADPDHDH TGFLT EYVAT RWYRAPEIML NSKGYTKSID IWSVGCILAE MLSNRPIFPG KHYLDQLNHI LGILGSPSQE DLNCIINLKA RNYLLSLPHK NKVPWNRLFP NADSKALDLL DKMLTFNPHK RIEVEQALAH PYLEQYYDPS DEPIAEAPFK FDMELDDL PK EKLKELIFEE TARFQPGYRS

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Form	Liquid. In 20 mM Tris-HCl buffer (pH8.0) containing 1mM DTT 10% glycerol
Molecular Weight	43.5 kDa (380aa)
Purity	> 95% by SDS - PAGE
Concentration	1 mg/ml (determined by Bradford assay)
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.
Pathways	Acute myeloid leukemia; Adherens junction; Alzheimer"s disease; Axon guidance; B cell receptor signaling pathway; Bladder cancer; Chemokine signaling pathway; Chronic myeloid leukemia; Colorectal cancer; Dorso-ventral axis formation.

GENE INFORMATION

Gene Name	MAPK1 mitogen-activated protein kinase 1 [Homo sapiens]
Synonyms	ERK; p38; p40; p41; ERK2; ERT1; MAPK2; PRKM1; PRKM2; P42MAPK; p41mapk; MAPK1;; mitogen-activated protein kinase 1; protein tyrosine kinase ERK2; mitogen-activated protein kinase 2; extracellular signal-regulated kinase 2; extracellular signal-regulated kinase-2.
Gene ID	5594
mRNA Refseq	NM_002745
Protein Refseq	NP_002736
MIM	176948

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UniProt ID	P28482
Chromosome Location	22q11.2; 22q11.21
Function	ATP binding; MAP kinase 2 activity; mitogen-activated protein kinase kinase kinase binding; nucleotide binding; phosphotyrosine binding; protein binding; protein serine/threonine kinase activity; transferase activity.
PDB rendering based on 1erk. Available structures 1erk, 1gol, 1pme, 1tvo, 1wzy, 2erk, 2fys, 2gph, 2ojg, 2oji, 2ojj, 3erk, 4erk	