

# 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 *E.coli* and purified by using conventional chromatography techniques.

### Species

Human

### Source

*E.coli*

### 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 VGPRYTNSLY  
 IGEGAYGMVC SAYDNVNKVR VAIKKISPFH HQTYCQRTL R EIKILLRFRH  
 ENIIGINDII RAPTIEQMKD VYIVQDLMET DLYKLLKTQH LSNDHICYFL  
 YQILRGLKYI HSANVLHRDL KPSNLLLNTT CDLKICDFGL ARVADPDHDH  
 TGFLTEYVAT RWYRAPEIML NSKGYTKSID IWSVGCILAE MLSNRPIFPG  
 KHYLDQLNHI LGILGSPSQE DLNCIINLKA RNYLLSLPHK NKVPWNRLFP  
 NADSKALDLL DKMLTFNPHK RIEVEQALAH PYLEQYYDPS DEPIAEAPFK  
 FDMELDDL PK EKLKELIFEE TARFQPGYRS

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Form</b>	Liquid. In 20 mM Tris-HCl buffer (pH8.0) containing 1mM DTT 10% glycerol
<b>Molecular Weight</b>	43.5 kDa (380aa)
<b>Purity</b>	> 95% by SDS - PAGE
<b>Concentration</b>	1 mg/ml (determined by Bradford assay)
<b>Storage</b>	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.
<b>Pathways</b>	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

<b>Gene Name</b>	<a href="#">MAPK1 mitogen-activated protein kinase 1 [ Homo sapiens ]</a>
<b>Synonyms</b>	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.
<b>Gene ID</b>	<a href="#">5594</a>
<b>mRNA Refseq</b>	<a href="#">NM_002745</a>
<b>Protein Refseq</b>	<a href="#">NP_002736</a>
<b>MIM</b>	176948

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

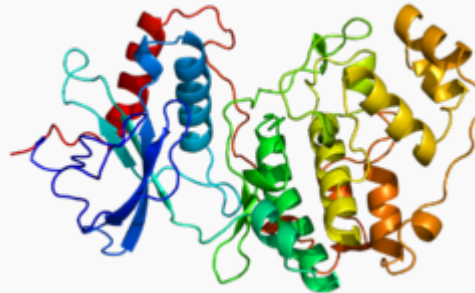
 45-1 Ramsey Road, Shirley, NY 11967, USA

**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



 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA