

# Recombinant human ERK2/MAPK1 protein

Catalog Number: ATGP0445

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-360aa

### UniProt No.

P28482

### NCBI Accession No.

NP\_620407

### Alternative Names

PRKM2, PRKM1, p42MAPK, p41MAPK, p41, p40, p38, Mitogen-activated protein kinase 1 MAP kinase 2, Mitogen-activated protein kinase 1, MAPK2, MAPK1, Extracellular Signal Regulated Kinase 2, ERT1, ERK2, ERK, ,

## PRODUCT SPECIFICATION

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### Molecular Weight

43.5 kDa (380aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 1mM DTT, 0.1 M NaCl.

### Purity

> 95% by SDS-PAGE

### Tag

His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### 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. Recombinant human MAPK1 protein, fused to His-tag at N-terminus, was expressed in E. coli and

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purified by using conventional chromatography techniques.

## Amino acid Sequence

MGSSHHHHHH SGLVPRGSH MAAAAAAGAG PEMVRGQVFD VGPRYTNSY IGEGAYGMVC SAYDENVKVR 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 FDMELDDLPK EKLKELIFEE TARFQPGYRS

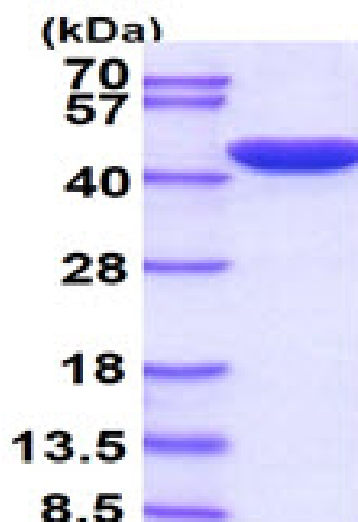
## General References

Hu S., et al. (2009) Cell. 139(3):610-22.

McGargill MA., et al. (2009) J Immunol. 183(8):4838-42.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)