

# Recombinant human ERK1/MAPK3 protein

Catalog Number: ATGP0687

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-379aa

### UniProt No.

P27361

### NCBI Accession No.

NP\_002737

### Alternative Names

Mitogen-activated protein kinase 3, MAP kinase 3, MAPK 3, ERT2, Extracellular signal-regulated kinase 1, ERK-1, Insulin-stimulated MAP2 kinase, MAP kinase isoform p44, p44-MAPK, Microtubule-associated protein 2 kinase, p44-ERK1, PRKM3

## PRODUCT SPECIFICATION

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### Molecular Weight

45.2 kDa (399aa) confirmed by MALDI-TOF

### Concentration

0.5mg/ml (determined by Bradford assay)

### Formulation

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

### Purity

> 90% 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

MAPK3 is a member of the MAP kinase family. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act in a signaling cascade that regulates various cellular processes such as proliferation, differentiation, and cell cycle progression in response to a variety of extracellular signals. This protein is activated by upstream kinases, resulting in its translocation to the nucleus where it phosphorylates nuclear targets. Recombinant

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human MAPK3 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

## Amino acid Sequence

MGSSHHHHHH SSSLVPRGSH MAAAAAQGGG GGEPRTEGV GPGVPGEVEM VKGQPFVGP RYTQLQYIGE  
GAYGMVSSAY DHVRKTRVAI KKISPFHQY YCQRTLREIQ ILLRFRHENV IGIRDILRAS TLEAMRDVYI VQDLMETDLY  
KLLKSQQLSN DHICYFLYQI LRGLKYIHS A NVLHRDLKPS NLLINTTCDL KICDFGLARI ADPEHDHTGF LTEYVATRKY  
RAPEIMLSNK GYTKSIDIWS VGCILAEMLS NRPIFGKHY LDQLNHILGI LGSPSQEDLN CIINMKARNY LQSLPSKTKV  
AWAKLFPKSD SKALDLLDRM LTFNPNKRIT VEEALAHPYL EQYYDPTDEP VAEPPFTFAM ELDDLPKERL KELIFQETAR  
FQPGVLEAP

## General References

Kim DW, et al. (2000) Mol Cell Biol. 20(4):1140-8

## DATA

### SDS-PAGE



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

15% SDS-PAGE (3ug)