www.neobiolab.com info@neobiolab.com 888.754.5670, +1 617.500.7103 United States 0800.088.5164, +44 020.8123.1558 United Kingdom

# MAPK3 Human

**Description:**ERK1/MAPK3 Recombinant is a highly active form produced by phosphorylation of the purified ERK1/MAPK3 in vitro with MEK1 is a non-glycosylated polypeptide having a molecular mass of 43.6 kDa. ERK1/MAPK3 is purified by proprietary chromatographic techniques.

**Synonyms:**Mitogen-activated protein kinase 3, EC 2.7.11.24, Extracellular signal-regulated kinase 1, ERK-1, Insulin-stimulated MAP2 kinase, MAP kinase 1, MAPK 1, p44-ERK1, ERT2, p44-MAPK, Microtubule-associated protein 2 kinase, ERK1, PRKM3, P44ERK1, P44MAPK, HS44K

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered clear solution.

Purity: Greater than 95% as determined by SDS-PAGE.

### Formulation:

ERK1 is supplied as 2.6mg/ml containing 50mM Tris-HCL, 150mM NaCl, 2mM DTT, 5mM EDTA, pH 8.0.

#### Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drµgs, agricultural or pesticidal products, food additives or household chemicals.

#### Introduction:

Extracellular signal-regulated kinases (ERKs) or classical MAP kinases are widely expressed protein kinaseintracellular signalingmolecules which are involved in functions including the regulation of meiosis, mitosis, and postmitotic functions in differentiated cells. Many different stimuli, including growth factors, cytokines, virusinfection, ligands for heterotrimeric G protein-coupled receptors, transforming agents, and carcinogens, activate the ERK pathway. The term, "extracellular signal-regulated kinases", is sometimes used as a synonym for mitogen-activated protein kinase(MAPK), but has more recently been adopted for a specific subset of the mammalianMAPK family. In the MAPK/ERK pathway, Rasactivates c-Raf, followed by MEKand then MAPK1/2 (below). Ras is typically activated by growth hormones through receptor tyrosine kinasesand GRB2/SOS, but may also receive other signals. ERKs are known to activate many transcription factors and some downstream protein kinases. Disruption of the ERK pathway is common in cancers, especially Ras, c-Raf and receptors such as HER2.Mitogen-activated protein kinase 3 (MAPK3) is also known as "extracellular signal-regulated kinase 1" (ERK1). Transgenic gene knockoutmice lacking MAPK3 are viable and it is thought that MAPK1 can fulfill most MAPK3 functions in most cells. The main exception is in T cells. Mice lacking MAPK3 have reduced T cell development past the CD4+CD8+ stage.

## Storage:

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Avoid multiple freeze-thaw cycles.

To place an order, please Click HERE.



Catalog #:PKPS-220

For research use only.



