

Bioactive

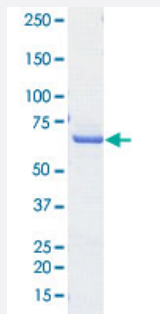
Full-Length

MAPK1 (K54R) (Human) Recombinant Protein

Catalog # P5679

Size 50 ug

Applications



Result of activity analysis

Result of activity analysis

□

Specification

Product Description	Human MAPK1 (NP_002736.3, 1 a.a. - 360 a.a.) K54R mutant full-length recombinant protein with GST tag expressed in <i>Escherichia coli</i> .
Host	<i>Escherichia coli</i>
Theoretical MW (kDa)	69
Form	Liquid
Preparation Method	<i>Escherichia coli</i> expression system
Purification	Glutathione sepharose chromatography
Purity	96 % by SDS-PAGE/CBB staining

Activity	The activity was measured by off-chip mobility shift assay. The enzyme was incubated with fluorescence-labeled substrate and Mg(or Mn)/ATP. The phosphorylated and unphosphorylated substrates were separated and detected by LabChip 3000. Substrate: Modified Erktide. ATP : 100 uM.
Quality Control Testing	Loading 1 ug protein in SDS-PAGE
Storage Buffer	In 50 mM Tris-HCl, 150 mM NaCl, pH 7.5 (0.1% CHAPS, 1 mM DTT, 10% glycerol)
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Result of activity analysis Result of activity analysis

Applications

- Functional Study
- SDS-PAGE

Gene Info — MAPK1

Entrez GeneID	5594
Protein Accession#	NP_002736.3
Gene Name	MAPK1
Gene Alias	ERK, ERK2, ERT1, MAPK2, P42MAPK, PRKM1, PRKM2, p38, p40, p41, p41mapk
Gene Description	mitogen-activated protein kinase 1
Omim ID	176948
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is a member of the MAP kinase family. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals, and are 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. Two alternatively spliced transcript variants encoding the same protein, but differing in the UTRs, have been reported for this gene. [provided by RefSeq]

Other Designations

OTTHUMP00000174492|extracellular signal-regulated kinase 2|extracellular signal-regulated kinase-2|mitogen-activated protein kinase 2|protein tyrosine kinase ERK2

Pathway

- [Acute myeloid leukemia](#)
- [Adherens junction](#)
- [Axon guidance](#)
- [B cell receptor signaling pathway](#)
- [Bladder cancer](#)
- [Chemokine signaling pathway](#)
- [Chronic myeloid leukemia](#)
- [Colorectal cancer](#)
- [Dorso-ventral axis formation](#)
- [Endometrial cancer](#)
- [ErbB signaling pathway](#)
- [Fc epsilon RI signaling pathway](#)
- [Fc gamma R-mediated phagocytosis](#)
- [Focal adhesion](#)
- [Gap junction](#)
- [Glioma](#)
- [GnRH signaling pathway](#)
- [Insulin signaling pathway](#)
- [Long-term depression](#)
- [Long-term potentiation](#)
- [MAPK signaling pathway](#)
- [Melanogenesis](#)

- [Melanoma](#)
- [mTOR signaling pathway](#)
- [Natural killer cell mediated cytotoxicity](#)
- [Neurotrophin signaling pathway](#)
- [Non-small cell lung cancer](#)
- [Pancreatic cancer](#)
- [Pathways in cancer](#)
- [Prion diseases](#)
- [Prostate cancer](#)
- [Regulation of actin cytoskeleton](#)
- [Renal cell carcinoma](#)
- [T cell receptor signaling pathway](#)
- [TGF-beta signaling pathway](#)
- [Thyroid cancer](#)
- [Toll-like receptor signaling pathway](#)
- [Type II diabetes mellitus](#)
- [Vascular smooth muscle contraction](#)
- [VEGF signaling pathway](#)

Disease

- [Anorexia Nervosa](#)
- [Asthma](#)
- [Bulimia](#)
- [Cardiovascular Diseases](#)
- [Diabetes Mellitus](#)
- [Disease Models](#)

- [Edema](#)
- [Genetic Predisposition to Disease](#)
- [HIV Infections](#)
- [Kidney Failure](#)
- [Narcolepsy](#)
- [Ovarian Neoplasms](#)
- [Thyroid Neoplasms](#)