

Recombinant Mouse Mitogen-activated Protein Kinase 1, His-tagged

Cat. No. Mapk1-638M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse full length ERK2/MAPK2 (K52R) with N-terminal His6 tag, was expressed in <i>E.coli</i> . MW=42 kDa.
Species	Mouse
Source	E.coli
Description	ERK2 is a protein serine/threonine kinase that is a member of the extracellular signal-regulated kinases (ERKs) which are activated in response to numerous growth factors and cytokines. Activation of ERK2 requires both tyrosine and threonine phosphorylation that is mediated by MEK. ERK2 is ubiquitously distributed in tissues with the highest expression in heart, brain and spinal cord. Activated ERK2 translocates into the nucleus where it phosphorylates various transcription factors.
Formulated In	25 mM Tris-HCl, pH 8.0, 100 mM NaCl, 0.05% Tween-20, 50% glycerol, 3 mM DTT.
Application	A suitable substrate of MEK1.
Stability	>6 months at –80°C.
Pathways	Acute myeloid leukemia; Adherens junction; Aldosterone-regulated sodium reabsorption; Alzheimer"s disease; Axon guidance; Melanogenesis; Melanoma; NOD-like receptor signaling pathway; Natural killer cell mediated cytotoxicity; Neurotrophin signaling pathway; Non-small cell lung cancer; Oocyte meiosis; Pancreatic cancer;

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Pathways in cancer; Prion diseases; Progesterone-mediated oocyte maturation; 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; VEGF signaling pathway; Vascular smooth muscle contraction; mTOR signaling pathway

Full Length Full L.

GENE INFORMATION

Gene Name [Mapk1 mitogen-activated protein kinase 1 \[Mus musculus \]](#)

Synonyms mitogen-activated protein kinase 1; ERK; Erk2; MAPK2; PRKM2; Prkm1; C78273; p41mapk; p42mapk; AA407128; AU018647; 9030612K14Rik; Mapk1; ERT1; ERK-2; MAPK 1; MAPK 2; p42-MAPK; MAP kinase 1; MAP kinase 2; OTTMUSP00000021888; OTTMUSP00000022009; OTTMUSP00000022010; MAP kinase isoform p42; mitogen activated protein kinase 1; mitogen-activated protein kinase 2; extracellular signal-regulated kinase 2

Gene ID [26413](#)

mRNA Refseq [NM_001038663](#)

Protein Refseq [NP_001033752](#)

UniProt ID [P63085](#)

Chromosome Location 16 A3; 16 9.82 cM

Function mitogen-activated protein kinase kinase kinase binding; ATP binding; MAP kinase 2

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activity; MAP kinase activity; kinase activity; nucleotide binding; phosphotyrosine binding; protein binding; protein kinase activity; protein serine/threonine kinase activity; transcription factor binding; transferase activity

**PDB rendering based
on 1erk.**

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