

Mitogen activated protein kinase from rat, Recombinant

Cat. No. NATE-0443

Lot. No. (See product label)

Introduction

Description

Mitogen-activated protein kinases (MAPK) are protein kinases that are specific to the amino acids serine, threonine, and tyrosine. MAPKs belong to the CMGC (CDK/MAPK/GSK3/CLK) kinase group. MAPKs are involved in directing cellular responses to a diverse array of stimuli, such as mitogens, osmotic stress, heat shock and proinflammatory cytokines. They regulate cell functions including proliferation, gene expression, differentiation, mitosis, cell survival, and apoptosis.

Synonyms

ERK2; Extracellular-signal regulated kinase; MAP Kinase Activated from rat; MAPK; Mitogen activated protein kinase

Product Information

Species

Rat

Source

E. coli

Form

buffered aqueous glycerol solution

Molecular Weight

mol wt 42 kDa

Purity

> 95% (SDS-PAGE)

Activity

> 500 U/mg

Buffer

Solution in 20 mM Tris, pH 7.5, 150 mM NaCl, 1 mM EGTA, 10% glycerol, 1 mM DTT, and 0.03% Brij.

Pathway

ARMS-mediated activation, organism-specific biosystem; Activated TLR4 signalling, organism-specific biosystem; Acute myeloid leukemia, organism-specific biosystem; Acute myeloid leukemia, conserved biosystem; Adherens junction, organism-specific biosystem; Adherens junction, conserved biosystem; Aldosterone-regulated sodium reabsorption, organism-specific biosystem

Function

ATP binding; ATP binding; MAP kinase activity; MAP kinase activity; MAP kinase activity; MAP kinase activity; RNA polymerase II carboxy-terminal domain kinase activity; RNA polymerase II carboxy-terminal domain kinase activity; kinase activity; kinase activity; mitogen-activated protein kinase kinase binding; nucleotide binding; phosphatase binding; phosphatase binding; phosphotyrosine binding; phosphotyrosine binding; protein binding; protein kinase activity; protein serine/threonine kinase activity; protein serine/threonine kinase activity; protein serine/threonine kinase activity; protein serine/threonine kinase activity; transcription factor binding

Unit Definition

One unit of activated MAP kinase will transfer 1 nmole of phosphate from ATP to myelin basic protein per min at 30°C.

Usage and Packaging

Package

vial of 100 ng

Storage and Shipping Information

Stability

-70°C