Creative Enzymes®

mitogen-activated protein kinase

Cat. No. EXWM-3144

Lot. No. (See product label)

Introduction

Description	Phosphorylation of specific tyrosineand threonine residues in the activation loop of this enzyme by EC 2.7.12.2, mitogen-activated protein kinase kinase (MAPKK) is necessary for enzyme activation. Once activated, the enzyme phosphorylates target substrates on serine or threonine residues followed by a proline. A distinguishing feature of all MAPKs is the conserved sequence Thr-Xaa-Tyr (TXY). Mitogen-activated protein kinase (MAPK) signal transduction pathways are among the most widespread mechanisms of cellular regulation. Mammalian MAPK pathways can be recruited by a wide variety of stimuli including hormones (e.g. insulin and growth hormone), mitogens (e.g. epidermal growth factor and platelet-derived growth factor), vasoactive peptides (e.g. angiotensin-II and endothelin), inflammatory cytokines of the tumour necrosis factor (TNF) family and environmental stresses such as osmotic shock, ionizing radiation and ischaemic injury.
Synonyms	c-Jun N-terminal kinase; Dp38; ERK; ERK1; ERK2; extracellular signal-regulated kinase; JNK; JNK3α1; LeMPK3; MAP kinase; MAP-2 kinase; MAPK; MBP kinase I; MBP kinase II; microtubule-associated protein 2 kinase; microtubule-associated protein kinase; myelin basic protein kinase; p38Δ; p38-2; p42 mitogen-activated protein kinase; p42mapk; PMK-1; PMK-2; PMK-3; pp42; pp44mapk; p44mpk; SAPK; STK26; stress-activated protein kinase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 2.7.11.24
Reaction	ATP + a protein = ADP + a phosphoprotein
Notes	This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage	Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.