Product Data Sheet

Product Name:	MEK1 Human
Cat. No.:	GP22561
Batch No.:	1

Product Data

Purity	>98%	Source	Sf9 Insect Cells.
Phycical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Formulation	MEK1 is supplied at a concentration of in 40mM Tris, pH-8, 0.15M NaCl, 0.27M sucrose, 1mM DTT, 0.2mM PMSF, 1mM benzamidine, 0.1mM sodium vanadate and 0.03% Brij-35.		

Introduction

MAP2K1 is a member of the dual specificity protein kinase family, which plays a role as a mitogen-activated protein (MAP) kinase kinase. MAP kinases, are recognized as extracellular signal-regulated kinases (ERKs), that act as an integration position for multiple biochemical signals. MEK1 is located upstream of MAP kinases and stimulates the enzymatic activity of MAP kinases upon wide variety of extra- and intracellular signals. As a key player of MAP kinase signal transduction pathway, MEK1 is involved in many cellular processes such as proliferation, differentiation, transcription regulation and development. MAP2K1 catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in a thr-glu-tyr sequence located in map kinases. MEK1 activates erk1 and erk2 map kinases.

Biological Activity

~125-175 units/mg. One unit of MEK1 activity transfers 1 nmol of phosphate to ERK1/2 peptide per minute at 30°C in a reaction containing 100?M ATP. Recombinant active MEK1 also phosphorylates ERK1, ERK2, and GSK-3?. Kinase activity may vary depending on the substrate and reaction conditions. The optimal concentration should be determined for each specific application.

Stability

Store at 4°C if entire vial will be used within 1-2 weeks.Store frozen at -20°C for longer periods of time.Avoid multiple freeze-thaw cycles.

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Background

MAP2K1 active Human Recombinant produced in Sf9 cells is a glycosylated, polypeptide chain containing amino acids 2-393 having a molecular mass of 47 kDa. MAP2K1 is fused to a polyhistidine tag and is purified by proprietary chromatographic techniques.

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