

Product Data Sheet

Product Name: MAP kinase fragment [Multiple species]
 Cat. No.: GP10140

Chemical Properties

Cas. No.

SMILES NC(CCCCN)C(NC(CC1=CC=C(O)C=C1)C(NC(C(CC)C)C(NC(CC2=CN=CN2)C(NC(CO)C(NC(C)C(NC(CC(N)=O)C(NC(C(C)C)C(NC(CC(C)C)

Formula C₄₈H₇₇N₁₃O₁₃

M.Wt

1044.2

Solubility ≥ 104.4mg/mL in DMSO

Storage

Store at -20°

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Background

This Mitogen-activated protein kinase (MAP kinase) fragment has a peptide sequence of Lys-Tyr-Ile-His-Ser-Ala-Asn-Val-Leu. The MAP kinases are serine/threonine-specific protein kinases belonging to the CMGC (CDK/MAPK/GSK3/CLK) kinase group. MAPK pathways are a collection of protein signaling cascades stimulated by a wide variety of extracellular signals, including growth factors, cytokines and environmental stresses. Upon activation, MAPK pathways regulate many fundamental cellular functions, including differentiation, proliferation and apoptosis, through the activation of specific transcription factors and other regulatory proteins. MAPKs are involved in directing cellular responses to a diverse array of stimuli, such as mitogens, osmotic stress, heat shock and proinflammatory cytokines. MAPK proteins have been repeatedly implicated in the pathogenesis of cancer and autoimmune diseases, leading to their selection as targets for drug development.

References:

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2. Pearson G, Robinson F, Beers Gibson T, Xu BE, Karandikar M, Berman K, Cobb MH (April 2001). "Mitogen-activated protein (MAP) kinase pathways: regulation and physiological functions". *Endocr. Rev.* 22 (2): 153-83.
3. Bandyopadhyay S. et al. "A human MAP kinase interactome". *Nature Methods.* 7(2010);801-805.
4. Chang, L. & Karin, M. Mammalian MAP kinase signalling cascades. *Nature* 410, 37-40 (2001).
5. Widmann, C., Gibson, S., Jarpe, M.B. & Johnson, G.L. Mitogen-activated protein kinase: conservation of a three-kinase module from yeast to human. *Physiol. Rev.* 79, 143-180 (1999).
6. Kolch, W., Calder, M. & Gilbert, D. When kinases meet mathematics: the systems biology of MAPK signalling. *FEBS Lett.* 579, 1891-1895 (2005).
7. Johnson, G.L. & Lapadat, R. Mitogen-activated protein kinase pathways mediated by ERK, JNK, and p38 protein kinases. *Science* 298, 1911-1912 (2002).

Caution: Product has not been fully validated for medical applications. For research use only.

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