JNK Inhibitor II (SP 600125)

anthra(1,9-*cd*)pyrazol-6(*2H*)-one

PRODUCT ANALYSIS SHEET

Catalog Number:	PHZ1064
Lot Number:	See product label
Quantity:	5.0 mg
Appearance:	Yellow-brown solid
Molecular Formula:	$C_{14}H_8N_2O$
Molecular Weight:	220.2
Purity:	≥98%, as determined by HPLC
Summary:	SP 600125 is a cell-permeable, potent, reversible inhibitor of c-Jun N-terminal kinase (JNK), and is a valuable tool for elucidating the role of JNK in chronic inflammatory diseases, apoptosis, and cell proliferation. Kinetic studies indicate that SP 600125 is competitive with respect to ATP. This compound impacts transcription profiles by inhibiting the phosphorylation of c-Jun, a component of the AP-1 transcription factor. The expression of several key signaling proteins, including COX-2, IL-2, IFN-γ, and TNF-α, is blocked by this compound.
Biological Activity:	JNK1: IC_{50} = 40 nM JNK2: IC_{50} = 40 nM JNK3: IC_{50} = 90 nM
Solubility:	Soluble in DMSO at a concentration of 15 mg/mL.
Suggestions for Use:	SP 600125 is only slightly soluble in aqueous media. To ensure delivery to cells, media to which SP 600125 will be added can be supplemented with 0.1% DMSO. Solubility can also be enhanced by supplementing media with serum proteins, then warming the media prior to SP 600125 addition.
Sterility:	This product is not sterile.
Storage:	Store, as supplied, at –20°C, protected from light. Upon solubilization, apportion into working aliquots, flush with an inert gas, and store at –20°C. Solutions are stable at –20°C for up to two months.
Expiration Date:	Expires one year from date of receipt when stored as instructed.
Related Products:	JNK [pTpY183/185] antibody, Cat. # 44-682G c-Jun antibody, Cat. # AHO1002 p38 [pTpY 180/182] antibody, Cat. # 44-684G ERK1/2 [pTpY185/187] antibody, Cat. # 44-680G
References:	Bennett, B.L., D.T. Sasaki, B.W. Murray, E.C. O'Leary, S.T. Sakata, W. Xu, J.C. Leisten, A. Motiwala, S. Pierce, Y. Satoh, S.S. Bhagwat, A.M. Manning, and D.W. Anderson (2001) SP600125, an anthrapyrazolone inhibitor of Jun N-terminal kinase. Proc. Nat'l. Acad. Sci. 98(24):13681-13686. Han, Z., D.L. Boyle, L. Chang, B. Bennett, M. Karin, L. Yang, A.M. Manning, and G.S. Firestein (2001) c-Jun N-terminal kinase is required for metalloproteinase expression and joint destruction in inflammatory arthritis. J. Clin. Invest. 108(2):181-183.

This product is for research use only. Not for use in diagnostic procedures.

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Caution: Avoid contact with eyes, skin, and mucous membranes. Wear protective clothing when handling this product. Not for human use.

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diagnostic, therapeutic or commercial use.