SP600125

JNK Inhibitor

Catalog # tlrl-sp60

For research use only

Version # 10L01-MM

PRODUCT INFORMATION

Content:

• 10 mg SP600125

Storage and stability:

- SP600125 is provided as a solid and shipped at room temperature. Store at -20˚C. Solid product is stable 1 year at -20°C.
- Upon resuspension, prepare aliquots of SP600125 and store at -20˚C. Avoid repeated freeze-thaw cycles. Resuspended product is stable for 3 months at -20°C when properly stored.

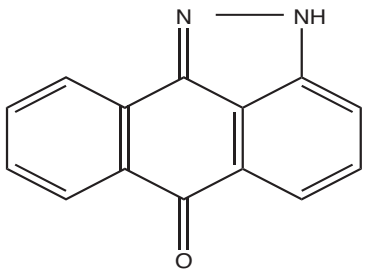
DESCRIPTION

SP600125 is a potent, cell-permeable, selective and reversible inhibitor of c-Jun N-terminal kinase (JNK)[1]. It inhibits in a dose-dependent manner the phosphorylation of JNK. JNK is a member of the mitogen-activated protein kinase (MAPK) family and plays an essential role in TLR-mediated inflammatory responses[2, 3].

1. Bennett BL. *et al.*, 2001. SP600125, an anthrapyrazolone inhibitor of Jun N-terminal kinase. Proc. Natl. Acad. Sci. USA. 98:13681-13686. **2. Kenzel S. 2006.** c-Jun Kinase Is a Critical Signaling Molecule in a Neonatal Model of Group B Streptococcal Sepsis1. J Immunol. 176: 3181-3188. **3. Adhikary G. *et al.*, 2008.** C-Jun NH2 terminal kinase (JNK) is an essential mediator of Toll-like receptor 2-induced corneal inflammation. J. Leukoc. Biol., 83: 991-997.

CHEMICAL PROPERTIES

CAS number: 129-56-6
Synonym: SAPK inhibitor II
Formula: $C_{14}H_8N_2O$
Molecular weight: 220.2
Solubility: 100 mM in DMSO and 10 mM in ethanol
Appearance: Yellowish orange solid
Purity: >99% (HPLC)



METHODS

Preparation of a sterile stock solution (50 mM)

To obtain a 50 mM stock solution:
1. Add 910 µl DMSO to 10 mg SP600125 vial.
2. Vortex until complete solubilization.
3. Prepare aliquots and store at -20˚C.

Note: It is recommended to use the stock solution directly to treat your cells, as SP600125 will precipitate if further diluted in H_20 or PBS.

Working concentration: 10-50 µM

Jun N-terminal kinase (JNK) inhibition:

To assess the role of JNK, pretreat cells (such as T cells or HEK293 cells transfected with one or several TLR genes) for 20 min to 1 hour with SP600125 at 10-50 µM and then incubate at 37°C with the appropriate TLR ligand for 1 to 6 hours. The cell lysates of the stimulated cells can be used to detect phosphorylation of MAPK by immunoblotting for JNK with a phosphospecific antibody for JNK, ERK, p38, or IKK[2,3].

RELATED PRODUCTS

Product	Catalog Code
pUNO-hTLR2	puno-htlr2
pUNO-mTLR2	puno-mtlr2
Pam3CSK4	tlrl-pms
pUNO-hTLR7	puno-htlr7
pUNO-mTLR7	puno-mtlr7
Gardiquimod	tlrl-gdq
pUNO-hTLR9	puno-htlr9a
pUNO-mTLR9	puno-mtlr9
ODN 2006	tlrl-hodnb

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