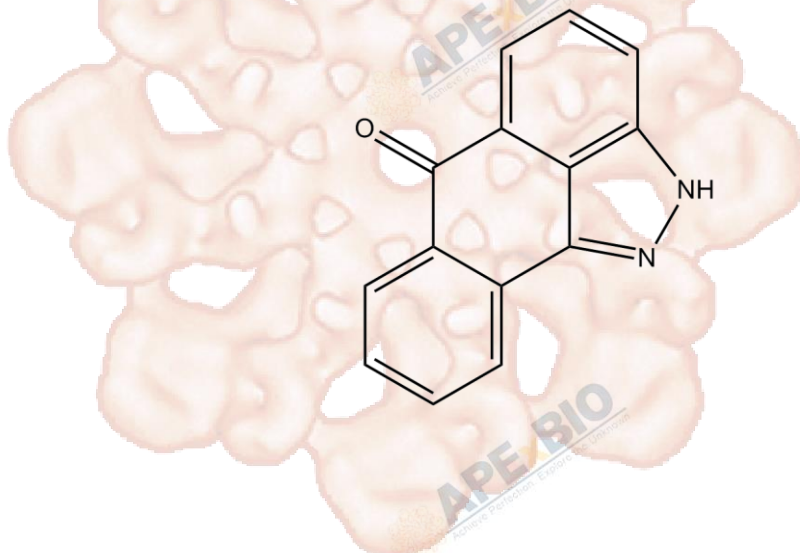


Product Data Sheet

SP 600125

Cat. No.:	A4604
CAS No.:	129-56-6
Formula:	C ₁₄ H ₈ N ₂ O
M.Wt:	220.23
Synonyms:	
Target:	MAPK Signaling
Pathway:	JNK
Storage:	Desiccate at -20°C



Solvent & Solubility

insoluble in H₂O; ≥11 mg/mL in DMSO; ≥2.56 mg/mL in EtOH with gentle warming

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	4.5407 mL	22.7035 mL	45.4071 mL
	5 mM	0.9081 mL	4.5407 mL	9.0814 mL
	10 mM	0.4541 mL	2.2704 mL	4.5407 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

JNK1/2/3 inhibitor

IC₅₀ & Target

40 nM (JNK1), 40 nM (JNK2), 90 nM (JNK3), 60 nM (Aurora A), 90 nM (Flt3), 70 nM (TRKA)

In Vitro

Cell Viability Assay

Cell Line:	MIN6 cells
Preparation method:	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	40 μM, 36 hours

	Applications:	When the MIN6 cells were transfected with the Gal4 plasmid and CREB plasmid, SP600125 significantly stimulated CREB-mediated promoter activity in a dose-dependent manner. There was a 2.8-fold increase in this reporter activity after exposure of the transfected MIN6 cells to 20 μ M of the inhibitor.
In Vivo	Animal experiment	
	Animal models:	Female C57BL/6 mice
	Dosage form:	Subcutaneous injection; 15 mg/kg; administered at 0, 12, 24, and 36 h
	Applications:	Anti-CD3 (50 μ g) i.p. was administered as a single dose immediately after SP600125 at time 0. After 48 h, mice were killed, and the thymus was dissected for thymocyte isolation. Mice receiving SP600125 showed almost complete resistance to CD3 Ab-mediated apoptosis with CD4+CD8+ numbers the same as control animals.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Wang Z, Guhl S, et al. "IL-33 and MRGPRX2-Triggered Activation of Human Skin Mast Cells-Elimination of Receptor Expression on Chronic Exposure, but Reinforced Degranulation on Acute Priming." *Cells*. 2019 Apr 11;8(4). pii: E341.PMID:30979016
2. Wang Q, Zhou C, et al. "The involvement of the ERK-MAPK pathway in TGF- β 1-mediated connexin43-gap junction formation in chondrocytes. *Connect Tissue Res.*" 2019 Mar 22:1-10.PMID:30897973
3. Vincent Picher-Martel. "L'implication de l'ubiquiline-2 dans l'agrégation de TDP-43 et la pathogénèse de la sclérose latérale amyotrophique." University Laval. 2019.
4. Wang Y, Li Y, et al. "The cerebral cavernous malformation disease causing gene KRIT1 participates in intestinal epithelial barrier maintenance and regulation." *FASEB J*. 2018 Sep 25:fj201800343R.PMID:30252535
5. MXinwei Feng¹, Junfeng Lu², et al. "Mycobacterium smegmatis Induces Neurite Outgrowth and Differentiation in an Autophagy-Independent Manner in PC12 and C17.2 Cells." *Front. Cell. Infect. Microbiol.*, 19 June 2018.

See more customer validations on www.apexbt.com.

References

- [1] Vaishnav D, Jambal P, Reusch J E B, et al. SP600125, an inhibitor of c-jun N-terminal kinase, activates CREB by a p38 MAPK-mediated pathway. *Biochemical and biophysical research communications*, 2003, 307(4): 855-860.
- [2] Bennett B L, Sasaki D T, Murray B W, et al. SP600125, an anthrapyrazolone inhibitor of Jun N-terminal kinase. *Proceedings of the National Academy of Sciences*, 2001, 98(24): 13681-13686.

Caution

FOR RESEARCH PURPOSES ONLY.



NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEx BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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