

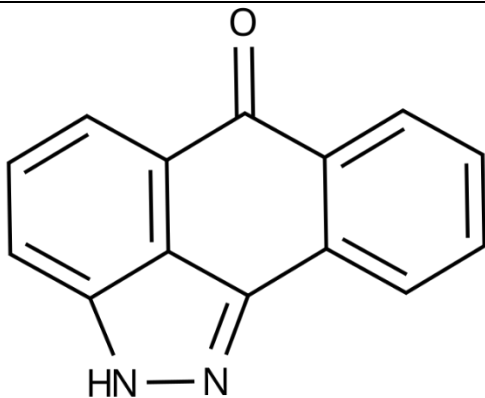


TrailBio® SP600125 User Instructions

Product Configurations

Catalog Number	Size	Quantity
TB08379	10 mg	1 vial

Product Description

Category	Specification
Product	SP600125
Synonyms	Pyrazolanthrone; JNK Inhibitor II
CAS Number	129-56-6
MDL Number	MFCD00022289
Formula	C ₁₄ H ₈ N ₂ O
Molecular Weight	220.23 g/mol
Storage (Solid)	-20 °C for up to 3 years or 4 °C for up to 2 years
Storage (Solution)	-80 °C for up to 2 years or -20 °C for up to 1 year
Shipping	Ambient temperature
Chemical Structure	

Quality & Analytical Specifications

Test Parameter	Specification
Solid Appearance (Color)	Yellow to green
Purity	≥98%

Solubility

Solvent	Solubility	Notes
DMSO	11.67 mg/ml (52.99 mM)	May require sonication and warming up to 60 °C

Solution Preparation Guide

Amount	1 mM	5 mM	10 mM
1 mg	4.541 ml	0.908 ml	0.454 ml
5 mg	22.704 ml	4.541 ml	2.270 ml
10 mg	45.407 ml	9.081 ml	4.541 ml

Biological Description

SP600125 is a synthetic anthrapyrazolone compound that inhibits c-Jun N-terminal kinases. It competes with ATP at the catalytic sites of JNK1, JNK2, and JNK3, reducing c-Jun phosphorylation and AP-1-dependent gene expression. This interferes with cellular responses to stress and inflammatory stimuli and can modify apoptosis and other regulated cell-death processes. Researchers can use SP600125 to investigate JNK activity, c-Jun-dependent transcription, inflammatory signaling, and stress-induced cell death.

Associated Pathways and Applications

Category	Description
Associated Pathways	SAPK/JNK MAPK signaling; c-Jun/AP-1 transcriptional regulation; stress-induced apoptosis
Applications	JNK kinase inhibition assays; c-Jun phosphorylation studies; cellular stress and inflammatory signaling models

Activity & Targets

Target	IC ₅₀
JNK1	40 nM
JNK2	40 nM
JNK3	90 nM

Notes

- When using DMSO-based stock solutions, maintain a final DMSO concentration of <0.5% in cell culture applications to minimize potential cellular toxicity, unless a higher concentration has been validated for the specific cell type.
- Avoid repeated freeze-thaw cycles. Prepare single-use aliquots when possible.
- Compound may collect on the vial cap or neck during shipping; centrifuge briefly before opening to bring contents to the bottom.
- Certificate of Analysis (CoA) available upon request. Please contact support@trailbio.com.

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