

Product Name: SP 600125

Catalog No.: 1496 **Batch No.:** 10

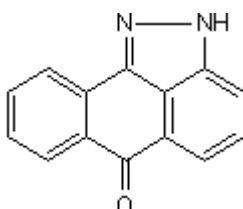
CAS Number: 129-56-6

EC Number: 204-955-6

IUPAC Name: Anthra[1-9-*cd*]pyrazol-6(2*H*)-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄H₈N₂O.0.1H₂O
Batch Molecular Weight: 222.03
Physical Appearance: Yellow solid
Solubility: ethanol to 5 mM with gentle warming
DMSO to 100 mM
Storage: Desiccate at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.58 (Chloroform:Methanol [9:1])
HPLC: Shows 98.9% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	75.73	3.72	12.62
Found	75.74	3.61	12.8

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Selective inhibitor of c-Jun N-terminal kinase (JNK). Competitively and reversibly inhibits JNK1, 2 and 3 (IC₅₀ = 40 - 90 nM) with negligible activity at ERK2, p38β and a range of enzymes (IC₅₀ > 10 μM). Active in vivo. Shown to have reduced selectivity over other protein kinases under certain conditions. Protects renal tubular epithelial cells against ischemia/reperfusion-induced apoptosis. Prevents BMP9-induced osteogenic differentiation of MSCs. Also available as part of the MAPK Inhibitor Tocriset™.

Physical and Chemical Properties:

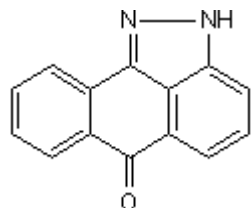
Batch Molecular Formula: C₁₄H₈N₂O.O.1H₂O

Batch Molecular Weight: 222.03

Physical Appearance: Yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Bennett et al (2001) SP600125, an anthrapyrazolone inhibitor of Jun N-terminal kinase. *Proc.Natl.Acad.Sci.U.S.A.* **98** 13681. PMID: 11717429.

Schnabl et al (2001) TAK1/JNK and p38 have opposite effects on rat hepatic stellate cells. *Hepatology* **34** 953. PMID: 11679966.

Wang et al (2007) SP600125, a selective JNK inhibitor, protects ischemic renal injury via suppressing the extrinsic pathways of apoptosis. *Life Sci.* **80** 2067. PMID: 17459422.

Zhao et al (2013) Activation of JNKs is essential for BMP9-induced osteogenic differentiation of mesenchymal stem cells. *BMB Rep.* **46** 422. PMID: 23977991.

Storage: Desiccate at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

ethanol to 5 mM with gentle warming

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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