**Product overview**

**Name**  
SP600125

**Cat No**  
HB2234

**Short description**  

**Biological description**  
SP600125 is a selective, cell-permeable, reversible and ATP-competitive JNK (c-Jun N-terminal Kinase) inhibitor (IC\textsubscript{50} values are 40-90 µM at JNK1,2,3). SP600125 shows selectivity over a range of other kinases.

SP600125 dose-dependently inhibits phosphorylation of JNK, inhibits expression of the inflammatory genes (COX-2, IL-2, IFN-γ and TNF-α) and prevents apoptosis in many cell types and inhibits autophagy in HeLa cells.

In addition, SP600125 also shows neuronal protective effects and is active in vivo.

SP600125 is also commonly used as a stem cell modulator which prevents BMP9-induced osteogenic mesenchymal stem cells (MSCs) and primary bone marrow stromal cells differentiation and is frequently used in media to maintain stem cells in naive pluripotent state.

**Biological action**  
Inhibitor

**Purity**  
>98%

**Properties**

**Chemical name**  
Anthra[1-9-cd]pyrazol-6(2H)-one

**Molecular Weight**  
220.23

**Chemical structure**

![Chemical structure](image)

**Molecular Formula**  
C\textsubscript{14}H\textsubscript{8}N\textsubscript{2}O

**CAS Number**  
129-56-6

**PubChem identifier**  
8515

**SMILES**  
C1=CC=C2C(=C1)C3=NNC4=CC=C(C43)C2=O

**InChI**  
InChI=1S/C14H8N2O/c17-14-9-5-2-1-4-8(9)13-12-10(14)6-3-7-11(12)15-16-13/h1-7H,13H2,(H,15,16)

**InChiKey**  
ACPOUIIDANTYHO-UHFFFAOYSA-N

**MDL number**  
MFCD00022289

**Appearance**  
Yellow solid
Storing and Using Your Product

Storage instructions
-20°C (desiccate)

Solubility overview
Soluble in DMSO (100mM) or ethanol (5mM, gentle warming)

Important
This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

References for SP600125

SP600125, an anthrapyrazolone inhibitor of Jun N-terminal kinase.
PubMedID: 11717429

SP600125, a selective JNK inhibitor, protects ischemic renal injury via suppressing the extrinsic pathways of apoptosis.
PubMedID: 17459422

SP600125, an anthrapyrazolone inhibitor of Jun N-terminal kinase.
PubMedID: 11717429

Differential Regulation of Evoked and Spontaneous Release by Presynaptic NMDA Receptors
PubMedID: 29033205