

Product Name: RG 108

Catalog No.: 3295

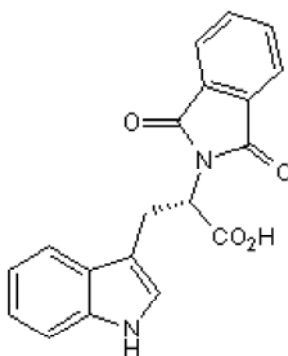
Batch No.: 2

CAS Number: 48208-26-0

IUPAC Name: *N*-Phthalyl-L-tryptophan

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉H₁₄N₂O₄
Batch Molecular Weight: 334.33
Physical Appearance: Yellow solid
Solubility: DMSO to 100 mM
 ethanol to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.5 (Dichloromethane:Methanol:Ammonia soln. [94:5:1])
HPLC: Shows 99.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = -319.8 (Concentration = 1, Solvent = Ethanol)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	68.26	4.22	8.38
Found	67.96	4.21	8.23

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

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IUPAC Name: N-Phthalyl-L-tryptophan

Description:

Non-nucleoside DNA methyltransferase inhibitor that blocks the enzyme active site. Inhibits DNA methylation in human cancer cell lines in vitro without detectable toxicity. Demethylates and reactivates epigenetically silenced tumor suppressor genes. Enhances the efficiency of induced pluripotent stem cell (iPS) generation.

Physical and Chemical Properties:

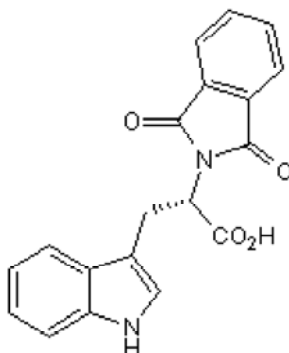
Batch Molecular Formula: C₁₉H₁₄N₂O₄

Batch Molecular Weight: 334.33

Physical Appearance: Yellow solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM

ethanol 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.

References:

Schirmmayer et al (2006) Synthesis and in vitro evaluation of biotinylated RG108: a high affinity compound for studying binding interactions with human DNA methyltransferases. *Bioconjug.Chem.* **17** 261. PMID: 16536454.

Stresemann et al (2006) Functional diversity of DNA methyltransferase inhibitors in human cancer cell lines. *Cancer Res.* **66** 2794. PMID: 16510601.

Brueckner et al (2005) Epigenetic reactivation of tumor suppressor genes by a novel small-molecule inhibitor of DNA methyltransferase. *Cancer Res.* **65** 6305. PMID: 16024632.

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