

Product Name: Arcyriaflavin A

Catalog No.: 2457

Batch No.: 1

CAS Number: 118458-54-1

IUPAC Name: 12,13-Dihydro-5*H*-indolo[2,3-*a*]pyrrolo[3,4-*c*]carbazole-5,7(6*H*)-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{20}H_{11}N_3O_2 \cdot C_2H_5OH \cdot \frac{1}{4}H_2O$

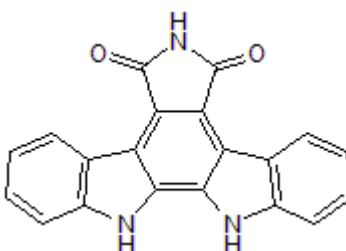
Batch Molecular Weight: 371.39

Physical Appearance: Orange solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: $R_f = 0.7$ (Dichloromethane:Methanol [9:1])

HPLC: Shows >98.2% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	70.3	4.69	11.18
Found	70.03	4.69	10.82

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

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Description:

Potent inhibitor of cdk4/cyclin D1 (IC₅₀ = 59 nM). Also active against CaM kinase II (IC₅₀ = 25 nM) but displays selectivity over several other kinases in vitro (IC₅₀ values for inhibition of PKA and PKC are > 2 and > 100 μM respectively). Inhibits human cytomegalovirus (HCMV) replication in vitro (IC₅₀ = 200 nM).

Physical and Chemical Properties:

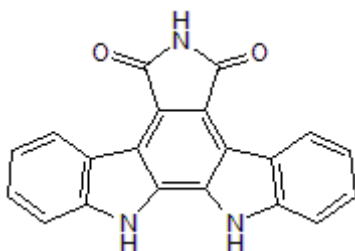
Batch Molecular Formula: C₂₀H₁₁N₃O₂·C₂H₅OH·¼H₂O

Batch Molecular Weight: 371.39

Physical Appearance: Orange solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Slater *et al* (1999) Indolocarbazoles: potent, selective inhibitors of human cytomegalovirus replication. *Bioorg.Med.Chem.* **7** 1067. PMID: 10428375.

Zhu *et al* (2003) Synthesis of quinoliny/isoquinoliny[*a*]pyrrolo [3,4-*c*] carbazoles as cyclin D1/CDK4 inhibitors. *Bioorg.Med.Chem.Lett.* **13** 1231. PMID: 12657252.

Sanchez-Martinez *et al* (2003) Aryl[*a*]pyrrolo[3,4-*c*]carbazoles as selective cyclin D1-CDK4 inhibitors. *Bioorg.Med.Chem.Lett.* **13** 3835. PMID: 14552791.

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

This product contains 1 molar equivalent of ethanol.

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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