

Product Name: PP 242

Catalog No.: 4257

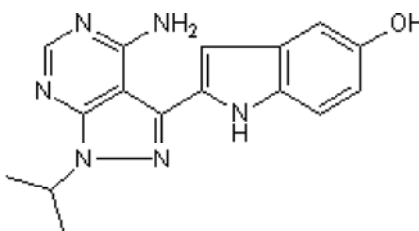
Batch No.: 2

CAS Number: 1092351-67-1

IUPAC Name: 2-[4-Amino-1-(1-methylethyl)-1*H*-pyrazolo[3,4-*d*]pyrimidin-3-yl]-1*H*-indol-5-ol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₁₆N₆O
Batch Molecular Weight: 308.34
Physical Appearance: Off White solid
Solubility: DMSO to 25 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	62.33	5.23	27.26
Found	62.12	5.35	27.3

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

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Description:

PP 242 is an ATP-competitive mTORC1/mTORC2 inhibitor (IC_{50} = 8 nM). Displays selectivity for mTOR over other PI 3K family kinases (IC_{50} values are 0.102, 0.408, 1.27, 1.96 and 2.2 μ M for p110 γ , DNA-PK, p110 δ , p110 α and p110 β respectively) and 215 further kinases. Displays modest inhibition of PKC α , JAK2, PKC β I, PKC β II and RET (IC_{50} values are 0.049, 0.110, 0.185, 0.198 and 0.224 μ M respectively). Inhibits both S6K and 4EBP1 phosphorylation; activity causes a decrease in cap-dependent protein translation. Also triggers downregulation of cFLIP $_S$ and augments TRAIL-induced apoptosis of cancer cells. PP... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

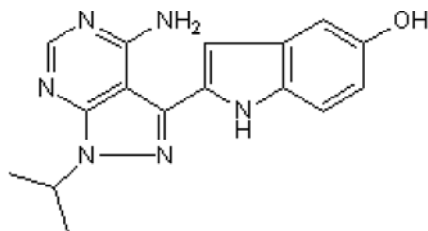
Batch Molecular Formula: C₁₆H₁₆N₆O

Batch Molecular Weight: 308.34

Physical Appearance: Off White solid

Minimum Purity: \geq 98%

Batch Molecular Structure:



References:

Ricoult et al (2016) Oncogenic PI3K and K-Ras stimulate de novo lipid synthesis through mTORC1 and SREBP. *Oncogene* **35** 1250. PMID: 26028026.

Zhao et al (2013) mTOR complex 2 is involved in regulation of Cbl-dependent c-FLIP regulation and sensitivity of TRAIL-induced apoptosis. *Cancer Res.* **73** 1946. PMID: 23319802.

Janes et al (2010) Effective and selective targeting of leukemia cells using a TORC1/2 kinase inhibitor. *Nat.Med.* **16** 205. PMID: 20072130.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 25 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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