

**Product Name:** PP 242

**Catalog No.:** 4257

**Batch No.:** 3

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:** C<sub>16</sub>H<sub>16</sub>N<sub>6</sub>O.½H<sub>2</sub>O

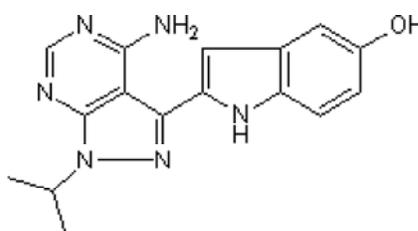
**Batch Molecular Weight:** 317.35

**Physical Appearance:** Off White solid

**Solubility:** DMSO to 25 mM

**Storage:** Store at +4°C

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 98.8% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	60.56	5.4	26.48
Found	60.53	5.39	26.56

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**Product Name:** PP 242

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**3**

CAS Number: 1092351-67-1

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

**Description:**

PP 242 is an ATP-competitive mTORC1/mTORC2 inhibitor (IC<sub>50</sub> = 8 nM). Displays selectivity for mTOR over other PI 3K family kinases (IC<sub>50</sub> values are 0.102, 0.408, 1.27, 1.96 and 2.2 μM for p110γ, DNA-PK, p110δ, p110α and p110β respectively) and 215 further kinases. Displays modest inhibition of PKCα, JAK2, PKCβI, PKCβII and RET (IC<sub>50</sub> values are 0.049, 0.110, 0.185, 0.198 and 0.224 μM respectively). Inhibits both S6K and 4EBP1 phosphorylation; activity causes a decrease in cap-dependent protein translation. Also triggers downregulation of cFLIP<sub>S</sub> 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:**

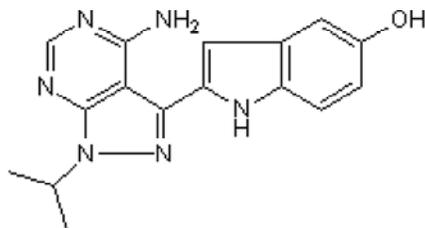
Batch Molecular Formula: C<sub>16</sub>H<sub>16</sub>N<sub>6</sub>O.½H<sub>2</sub>O

Batch Molecular Weight: 317.35

Physical Appearance: Off White solid

**Minimum Purity:** ≥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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