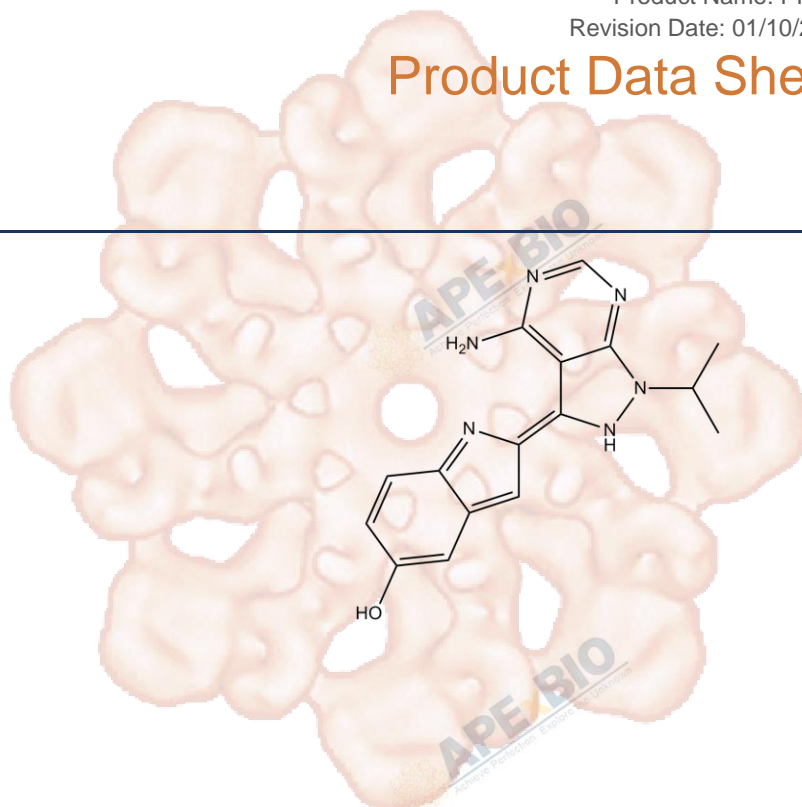


# Product Data Sheet

## PP242

<b>Cat. No.:</b>	A8318
<b>CAS No.:</b>	1092351-67-1
<b>Formula:</b>	C <sub>16</sub> H <sub>16</sub> N <sub>6</sub> O
<b>M.Wt:</b>	308.35
<b>Synonyms:</b>	PP242; PP-242
<b>Target:</b>	PI3K/Akt/mTOR Signaling
<b>Pathway:</b>	mTOR
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

insoluble in H<sub>2</sub>O; ≥31 mg/mL in EtOH; ≥61.6 mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Mass			
	Solvent Concentration	1mg	5mg	10mg
	1 mM	3.2431 mL	16.2153 mL	32.4307 mL
	5 mM	0.6486 mL	3.2431 mL	6.4861 mL
	10 mM	0.3243 mL	1.6215 mL	3.2431 mL

Please refer to the solubility information to select the appropriate solvent.

### Biological Activity

Shortsummary

MTOR inhibitor, selective and ATP-competitive

IC<sub>50</sub> & Target

8 nM (mTOR)

In Vitro

#### Cell Viability Assay

Cell Line: AML cells

Preparation method: The solubility of this compound in DMSO is ≥61.6mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20 °C for several months.

Reacting conditions: 0.1, 0.2, 0.6, 1.7 or 5.0 μM; 48 hrs

	Applications:	In primary AML cells cultured alone or cocultured with stromal cells, PP242 dose-dependently induced apoptosis. In addition, PP242 induced apoptosis in CD34+ AML progenitor cells cultured under the above-mentioned conditions.
In Vivo	<b>Animal experiment</b>	
	Animal models:	Ba/F3-ITD/luc/GFP mouse model of leukemia
	Dosage form:	60 mg/kg, p.o.; every other day
	Applications:	At the dose of 60 mg/kg, PP242 reduced leukemia burden. In addition, The anti-leukemia effect of PP242 was greater than that of Rapamycin at the dose of 0.5 mg/kg (the tolerable dose that was previously shown to inhibit mTOR signaling).
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

## Product Citations

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

- [1]. Apsel B, Blair JA, Gonzalez B, Nazif TM, Feldman ME, Aizenstein B, Hoffman R, Williams RL, Shokat KM, Knight ZA. Targeted polypharmacology: discovery of dual inhibitors of tyrosine and phosphoinositide kinases. *Nat Chem Biol.* 2008 Nov;4(11):691-9.
- [2]. Zeng Z, Shi YX, Tsao T, Qiu Y, Kornblau SM, Baggerly KA, et al. Targeting of mTORC1/2 by the mTOR kinase inhibitor PP242 induces apoptosis in AML cells under conditions mimicking the bone marrow microenvironment. *Blood* 2012;120:2679-2689.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

*Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.*

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**APEX BIO Technology**

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