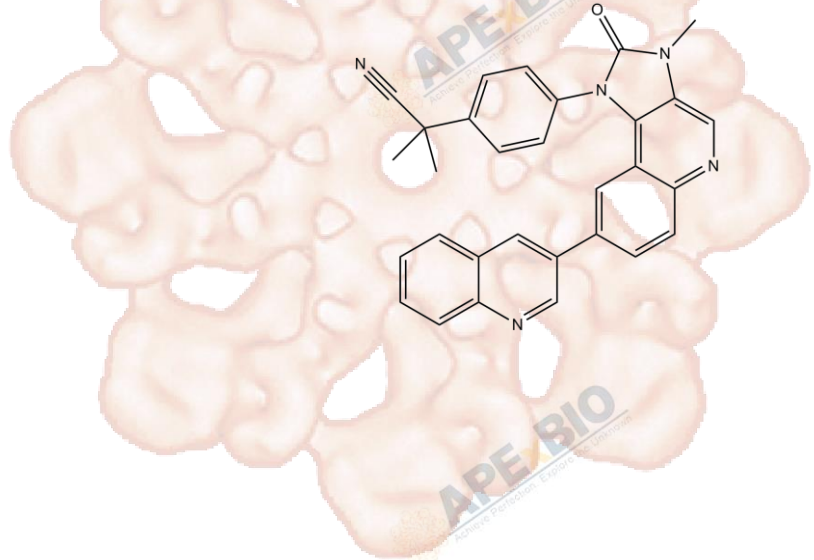


Product Data Sheet

BEZ235 (NVP-BEZ235)

Cat. No.:	A8246
CAS No.:	915019-65-7
Formula:	C30H23N5O
M.Wt:	469.55
Synonyms:	
Target:	PI3K/Akt/mTOR Signaling
Pathway:	PI3K
Storage:	Store at -20°C



Solvent & Solubility

insoluble in DMSO; insoluble in EtOH; insoluble in H2O

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	2.1297 mL	10.6485 mL	21.2970 mL
	5 mM	0.4259 mL	2.1297 mL	4.2594 mL
	10 mM	0.2130 mL	1.0648 mL	2.1297 mL

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

Biological Activity

Shortsummary

PI3K/mTOR inhibitor,ATP-competitive

IC₅₀ & Target

4 nM (p110α), 5 nM (p110γ), 7 nM (p110δ), 75 nM (p110β), 21 nM (ATR)

In Vitro

Cell Viability Assay

Cell Line:	MOLT-4 and CEM-R cells
Preparation method:	
Reacting conditions:	500 nM, for cell cycle inhibition 200 nM, 16 hours for pRb decrease
Applications:	Flow cytometric analysis of PI-stained T-ALL cells treated with BEZ235 for 16 hours documented an increase in G0/G1 phase cells and a concomitant

		decrease in S and G2-M phases in both MOLT-4 and CEM-R cell lines. A decrease in the amount of Ser807/811 pRb was detected in MOLT-4 and CEM-R cells treated with 200 nmol/L NVP-BE235 for 16 hours, whereas total pRb levels remained unchanged.
In Vivo	Animal experiment	
	Animal models:	Female athymic nude-Foxn1nu mice injected with BT474-VH2 cells
	Dosage form:	Oral administration, 40 mg/kg, once daily for 21 days
	Applications:	The antitumor activity of BEZ235 was studied in a xenograft model derived from HER2-amplified BT474 breast cancer cells engineered to express either the H1047R hotspot mutation or the empty vector (pBABE). BEZ235 treatment resulted in suppressed tumor growth. The H1047R-overexpressing tumors responded better to the BEZ235 treatment when compared with mock controls.
	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

1. Sun S, Zhang Y, et al. "HDAC6 inhibitor TST strengthens the antiproliferative effects of PI3K/mTOR inhibitor BEZ235 in breast cancer cells via suppressing RTK activation." Cell Death Dis. 2018 Sep 11;9(9):929.PMID:30206202
2. Peng T, Dou QP. "Everolimus Inhibits Growth of Gemcitabine-Resistant Pancreatic Cancer Cells via Induction of Caspase-Dependent Apoptosis and G(2) /M Arrest." J Cell Biochem. 2017 Feb 6.PMID:28165150

See more customer validations on www.apexbt.com.

References

- [1] Chiarini F, Grimaldi C, Ricci F, et al. Activity of the novel dual phosphatidylinositol 3-kinase/mammalian target of rapamycin inhibitor NVP-BE235 against T-cell acute lymphoblastic leukemia. Cancer research, 2010, 70(20): 8097-8107.
- [2] Serra V, Markman B, Scaltriti M, et al. NVP-BE235, a dual PI3K/mTOR inhibitor, prevents PI3K signaling and inhibits the growth of cancer cells with activating PI3K mutations. Cancer research, 2008, 68(19): 8022-8030.

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 APExBIO 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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