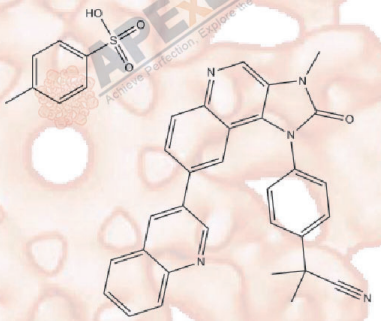
Product Data Sheet

BEZ235 Tosylate



Cat. No.:	A3238
CAS No.:	1028385-32-1
Formula:	C37H31N5O4S
M.Wt:	641.74
Synonyms:	NVP-BEZ 235 Tosylate; BEZ-235 Tosylate
Target:	PI3K/Akt/mTOR Signaling
Pathway:	PI3K
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

Soluble in DMSO

Preparing Stock Solutions

Concentration \ Mass	1mg	5mg	10mg
1 mM	1.5583 mL	7.7913 mL	15.5826 mL
5 mM	0.3117 mL	1.5583 mL	3.1165 mL
10 mM	0.1558 mL	0.7791 mL	1.5583 mL

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

Biological Activity

Shortsummary	MTOR/P13K inhibitor
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	Human prostate tumor cell line PC3M, U87MG glioblastoma tumor line
Preparation method：	Soluble in DMSO. 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:	10 to 50 nmol/L, 30 min
Applications:	In the U87MG glioblastoma PTEN-negative cell line, NVP-BEZ235 reduced S473P-Akt and T308P-Akt levels in a dose-dependent manner. Treatment of

		U2OS cells stably expressing a GFP-FKHRL1 chimeric protein with NVP-BEZ235 led to its complete nuclear relocalization. In PTEN-null cell lines PC3M and U87MG, NVP-BEZ235 dose-dependently reduced cell proliferation with an average GI50 of 10 to 12 nmol/L. In PC3M cells, NVP-BEZ235 (10-50 nmol/L) increased the G1 population. NVP-BEZ235 significantly increased the amount of the cyclin-dependent kinase inhibitor p27Kip1 in the p53-negative PC3M cell line.
In Vivo	**Animal experiment**	
	Animal models:	PC3M tumor-bearing nude mice, U87MG tumor-bearing mice
	Dosage form:	Oral administration, 50 mg/kg daily or 25 mg/kg twice daily
	Applications:	NVP-BEZ235 (50 mg/kg) appeared rapidly in plasma with a Cmax of 1.68 μmol/L at 0.5 h and a C24h of 0.03 μmol/L. In U87MG tumor-bearing mice, suboptimal (25 mg/kg/d once per day) to optimal (45 mg/kg/d once per day) of NVP-BEZ235 caused regression of the tumors. NVP-BEZ235 caused disease stasis when administered orally as a single agent and could enhance the efficacy of other anticancer agents when used in in vivo combination studies.
	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. Winter PS, et al. "RAS signaling promotes resistance to JAK inhibitors by suppressing BAD-mediated apoptosis." Sci Signal. 2014 Dec 23.PMID:25538080

See more customer validations on www.apexbt.com.

References

[1]. Maira S M, Stauffer F, Brueggen J, et al. Identification and characterization of NVP-BEZ235, a new orally available dual phosphatidylinositol 3-kinase/mammalian target of rapamycin inhibitor with potent in vivo antitumor activity[J]. Molecular cancer therapeutics, 2008, 7(7): 1851-1863

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. Shortterm 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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