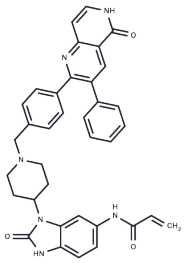
Data Sheet (Cat.No.T8427)

TargetMol

Borussertib

Chemical Properties



CAS No. : 1800070-77-2

Formula: C36H32N6O3

Molecular Weight: 596.68

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Borussertib is a first-in-class covalent-allosteric inhibitor of protein kinase Akt, with an IC50 of 0.8 nM and a Ki of 2.2 nM for Aktwt.
Targets(IC50)	Akt
In vitro	Borussertib exhibits excellent cellular activity in the nanomolar range with superior profile against clinical candidate Akt inhibitors as well as the cytostatic drug doxorubicin. With the EC50 values are 191±90 nM, 48±15 nM, 5±1 nM, 277±90 nM, 373±54 nM, 7770±641 nM in AN3CA (endometrium), T47D (breast), ZR-75-1 (breast), MCF-7 (breast), BT-474 (breast) and KU-19-19 (bladder) cell lines, respectively[1].

Solubility Information

Solubility	DMSO: 25 mg/mL (41.9 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (3.35 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6759 mL	8.3797 mL	16.7594 mL
5 mM	0.3352 mL	1.6759 mL	3.3519 mL
10 mM	0.1676 mL	0.838 mL	1.6759 mL
50 mM	0.0335 mL	0.1676 mL	0.3352 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Niklas Uhlenbrock, et al. Structural and chemical insights into the covalentallosteric inhibition of the protein kinase Akt. Chem Sci., 2019, 10, 3573.