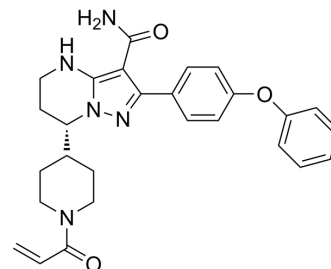


Zanubrutinib

Cat. No.:	HY-101474A		
CAS No.:	1691249-45-2		
Molecular Formula:	C ₂₇ H ₂₉ N ₅ O ₃		
Molecular Weight:	471.55		
Target:	Btk		
Pathway:	Protein Tyrosine Kinase/RTK		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 200 mg/mL (424.13 mM; Need ultrasonic)
Ethanol : < 1 mg/mL (insoluble)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		2.1207 mL	10.6033 mL	21.2067 mL
	5 mM		0.4241 mL	2.1207 mL	4.2413 mL
	10 mM		0.2121 mL	1.0603 mL	2.1207 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (4.41 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (4.41 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (4.41 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Zanubrutinib (BGB-3111) is a selective Bruton tyrosine kinase (Btk) inhibitor ^[1] .
IC ₅₀ & Target	BTK ^[1]
In Vitro	Zanubrutinib (BGB-3111) is a selective Bruton tyrosine kinase (BTK) inhibitor. In both biochemical and cellular assays, Zanubrutinib demonstrates nanomolar BTK inhibition activity. In several MCL and DLBCL cell lines, Zanubrutinib inhibits

BCR aggregation-triggered BTK autophosphorylation, blocks downstream PLC- γ 2 signaling, and potently inhibits cell proliferation. In comparison with PCI-32765, Zanubrutinib shows much more restricted off-target activities against a panel of kinases, including ITK^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Zanubrutinib (BGB-3111) induces dose-dependent anti-tumor effects against REC-1 MCL xenografts engrafted either subcutaneously or systemically via tail vein injection in mice. In the subcutaneous xenografts, Zanubrutinib at 2.5 mg/kg BID shows similar activity as PCI-32765 at 50 mg/kg QD. In the systemic model, the median survival of Zanubrutinib 25 mg/kg BID group is significantly longer than those of both PCI-32765 50 mg/kg QD and BID groups. In an ABC-subtype DLBCL (TMD-8) subcutaneous xenograft model, Zanubrutinib also demonstrates better anti-tumor activity than PCI-32765. Preliminary 14-day toxicity study in rats shows that Zanubrutinib is very well tolerated and maximal tolerate dose (MTD) is not reached when it is dosed up to 250 mg/kg/day^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Med Chem. 2021 Oct 21.
- Antioxidants (Basel). 2021, 10(12), 1936.
- Thromb Haemost. 2019 Mar;119(3):397-406.
- Pharmaceutics. 2023 Mar 22;15(3):1016.
- Pharmaceutics. 2022, 14(10), 1994.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Na Li, et al. Abstract 2597: BGB-3111 is a novel and highly selective Bruton's tyrosine kinase (BTK) inhibitor. Cancer Res 2015;75(15 Suppl):Abstract nr 2597.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA