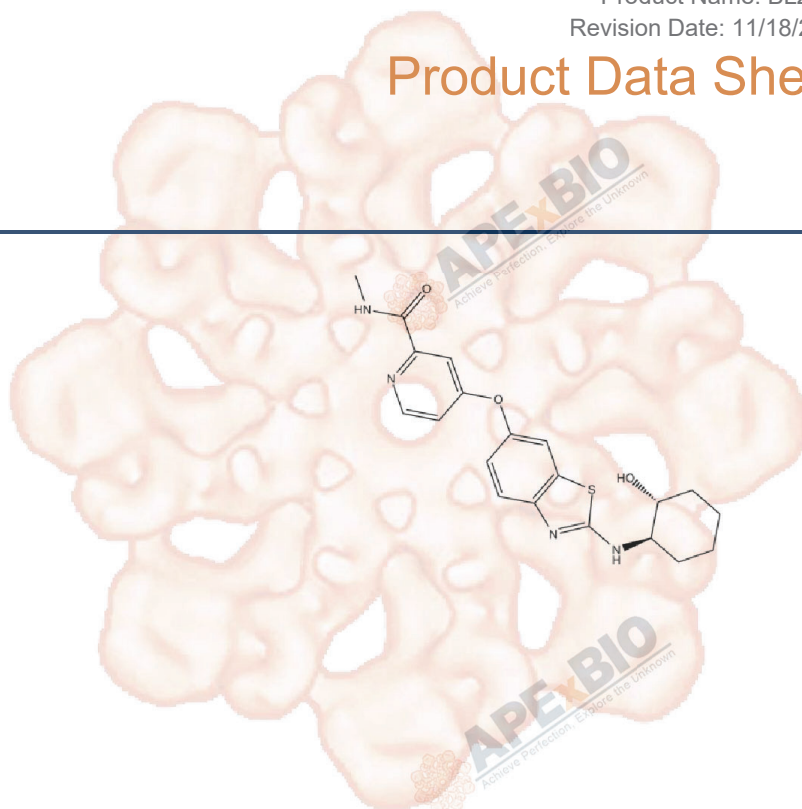


Product Data Sheet

BLZ945

Cat. No.:	B4899
CAS No.:	953769-46-5
Formula:	C ₂₀ H ₂₂ N ₄ O ₃ S
M.Wt:	398.48
Synonyms:	
Target:	Tyrosine Kinase
Pathway:	CSF-1R
Storage:	Store at -20°C



Solvent & Solubility

insoluble in EtOH; insoluble in H₂O; ≥ 19.9 mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	2.5095 mL	12.5477 mL	25.0954 mL
	5 mM	0.5019 mL	2.5095 mL	5.0191 mL
	10 mM	0.2510 mL	1.2548 mL	2.5095 mL

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

Biological Activity

Shortsummary

CSF-1R kinase inhibitor

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line: BMDM cell line

Preparation method:

The solubility of this compound in DMSO is > 19.9 mg/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:

6.7 ~ 6700 nM; 96 hrs

	Applications:	In BMDM cell line, BLZ945 specifically inhibited CSF-1-dependent proliferation (EC50 = 67 nM), and reduced CSF-1R phosphorylation.
In Vivo	Animal experiment	
	Animal models:	Female MMTV-PyMT transgenic mice
	Dosage form:	200 mg/kg; p.o.; q.d., for 16 days
	Applications:	In female MMTV-PyMT transgenic mice, BLZ945 decreased macrophages in tumors and livers, but showed no effect on lung macrophages, circulating monocytes and tumor cell proliferation.
	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. Saha D, Martuza RL, Rabkin SD. "Macrophage Polarization Contributes to Glioblastoma Eradication by Combination Immunovirotherapy and Immune Checkpoint Blockade". Cancer Cell. 2017 Aug 14;32(2):253-267.e5. PMID:28810147

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References

[1]. Pyonteck SM, Akkari L, Schuhmacher AJ, Bowman RL, Sevenich L, Quail DF, Olson OC, Quick ML, Huse JT, Teijeiro V, Setty M, Leslie CS, Oei Y, Pedraza A, Zhang J, Brennan CW, Sutton JC, Holland EC, Daniel D, Joyce JA. CSF-1R inhibition alters macrophage polarization and blocks glioma progression. Nat Med. 2013 Oct;19(10):1264-72.

[2]. Strachan DC, Ruffell B2, Oei Y et al. CSF1R inhibition delays cervical and mammary tumor growth in murine models by attenuating the turnover of tumor-associated macrophages and enhancing infiltration by CD8+ T cells. Oncoimmunology. 2013 Dec 1;2(12):e26968.

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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