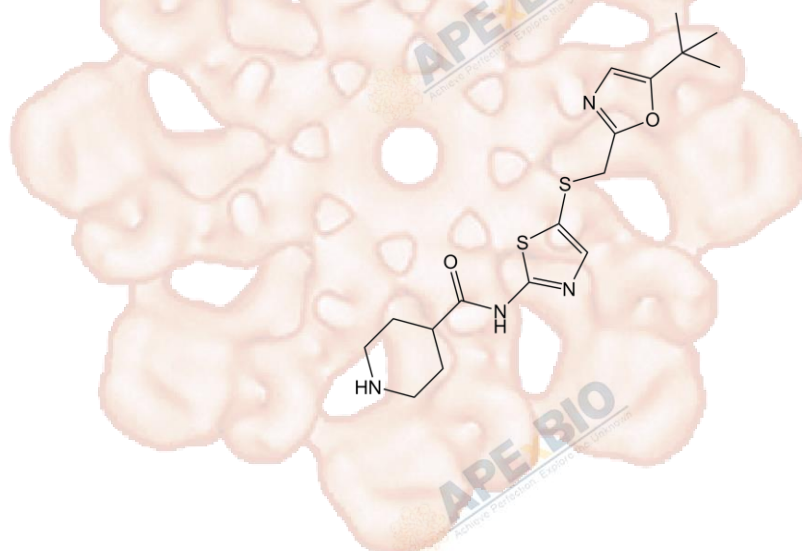


Product Data Sheet

SNS-032 (BMS-387032)

Cat. No.:	A1980
CAS No.:	345627-80-7
Formula:	C ₁₇ H ₂₄ N ₄ O ₂ S ₂
M.Wt:	380.53
Synonyms:	
Target:	Cell Cycle/Checkpoint
Pathway:	Cyclin-Dependent Kinases
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; ≥19.05 mg/mL in DMSO; ≥2.63 mg/mL in EtOH with ultrasonic

In Vitro

Preparing Stock Solutions	Mass			
	Solvent Concentration	1mg	5mg	10mg
	1 mM	2.6279 mL	13.1396 mL	26.2791 mL
	5 mM	0.5256 mL	2.6279 mL	5.2558 mL
	10 mM	0.2628 mL	1.3140 mL	2.6279 mL

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

Biological Activity

Shortsummary

CDK inhibitor

IC₅₀ & Target

48 nM (CDK2), 62 nM (CDK7), 4 nM (CDK9)

In Vitro

Cell Viability Assay

Cell Line:	Chronic lymphocytic leukemia (CLL) cells
Preparation method:	The solubility of this compound in DMSO is >10 mM. 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:	0.1, 0.3 and 1 μM; 6 or 24 hrs

	Applications:	CLL cells treated with SNS-032 for 6 or 24 hrs showed a decrease in the phosphorylation of Ser2 and Ser5 of the CTD of RNA Pol II, which appeared to be both time- and concentration- dependent, and remarkably consistent among samples. For the phosphorylation of Ser2, the inhibition of SNS-032 was greater than that for the phosphorylation of Ser5, this was consistent with the fact that IC50 for the inhibition of CDK9 was lower compared with that for the inhibition of CDK7 (4 nM vs 62 nM). After 6 hrs of SNS-032 exposure, protein levels of CDK7 and CDK9 were stable, but declined at 24 hrs.
In Vivo	Animal experiment	
	Animal models:	MDA-MB-435 xenograft mouse model
	Dosage form:	15 mg/kg; i.p.; every 3 days for approximately one month
	Applications:	In SNS-032-treated nude mice, the volume of the xenografted breast tumor was significantly inhibited by 65.77% after 30 days of drug administration (eight SNS-032 injections).
	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. Cingöz O, Goff SP. "Cyclin-dependent kinase activity is required for type I interferon production." Proc Natl Acad Sci U S A. 2018 Mar 27;115(13):E2950-E2959.PMID:29507205
2. Posternak V, Ung MH, et al. "MYC Mediates mRNA Cap Methylation of Canonical Wnt/ β -Catenin Signaling Transcripts By Recruiting CDK7 and RNAMethyltransferase." Mol Cancer Res. 2017 Feb;15(2):213-224.PMID:27899423

See more customer validations on www.apexbt.com.

References

- [1]. Chen R., Wierda W.G., Chubb S., et al. Mechanism of action of SNS032, a novel cyclin-dependent kinase inhibitor, in chronic lymphocytic leukemia. Blood, 2009, 113(19):4637-4645.
- [2]. Xie G, Tang H, Wu S, Chen J, Liu J, Liao C. The cyclin-dependent kinase inhibitor SNS-032 induces apoptosis in breast cancer cells via depletion of Mcl-1 and X-linked inhibitor of apoptosis protein and displays antitumor activity in vivo. Int J Oncol. 2014 Aug;45(2):804-12.

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. 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.



APExBIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com

