Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

SNS-032

Catalog No: tcsc0021

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg

Specifications

CAS No:
345627-80-7

Formula:
$C_{17}H_{24}N_4O_2S_2$

Pathway:
Cell Cycle/DNA Damage

Target:
CDK

Purity / Grade:
>98%

Solubility:
DMSO : 33.33 mg/mL (87.59 mM; Need ultrasonic)

Alternative Names:
BMS-387032

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Observed Molecular Weight:
380.53

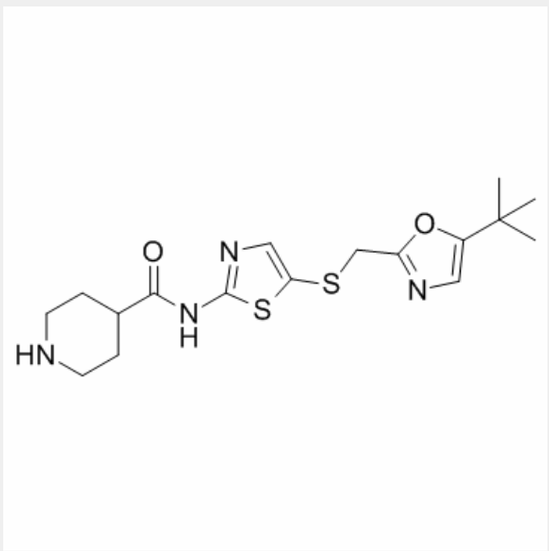
Product Description

SNS-032 is a selective inhibitor of **cyclin-dependent kinase (CDK)**, inhibiting **CDK2/7/9** with **IC_{50}**s of 38 nM/62 nM/4 nM.

IC50 & Target: IC50: 38 nM (CDK2), 62 nM (CDK7), 4 nM (CDK9)[1]

In Vitro: SNS-032 has low sensitivity to CDK1 and CDK4 with IC_{50} of 480 nM and 925 nM, respectively. SNS-032 effectively kills chronic lymphocytic leukemia cells in vitro regardless of prognostic indicators and treatment history. Compared with flavopiridol and roscovitine, SNS-032 is more potent, both in inhibition of RNA synthesis and at induction of apoptosis. SNS-032 activity is readily reversible; removal of SNS-032 reactivates RNA polymerase II, which led to resynthesis of Mcl-1 and cell survival[1]. SNS-032 inhibits three dimensional capillary network formations of endothelial cells. SNS-032 completely prevents U87MG cell–mediated capillary formation of HUVECs. In addition, SNS-032 significantly prevents the production of VEGF in both cell lines, SNS-032 prevents in vitro angiogenesis, and this action is attributable to blocking of VEGF. Preclinical studies have shown that SNS-032 induces cell cycle arrest and apoptosis across multiple cell lines[2]. SNS-032 blocks the cell cycle via inhibition of CDKs 2 and 7, and transcription via inhibition of CDKs 7 and 9. SNS-032 activity is unaffected by human serum[3]. SNS-032 induces a dose-dependent increase in annexin V staining and caspase-3 activation. At the molecular level, SNS-032 induces a marked dephosphorylation of serine 2 and 5 of RNA polymerase (RNA Pol) II and inhibits the expression of CDK2 and CDK9 and dephosphorylated CDK7[5].

In Vivo: SNS-032 (15 mg/kg, i.p.) inhibits both xenografted BaF3-T674I cells and KBM5-T315I cells in vivo. SNS-032 abrogates the growth of tumors transplanted in nude mice with downregulation of T674I PDGFRα and T315I-Bcr-Abl[4].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!

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