

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

Observed Molecular Weight:

380.53

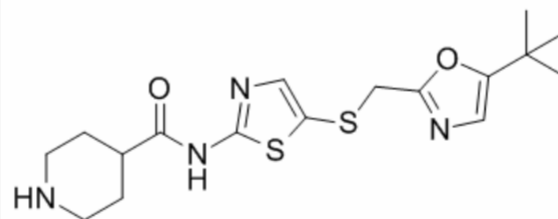
Product Description

SNS-032 is a selective inhibitor of **cyclin-dependent kinase (CDK)**, inhibiting **CDK2/7/9** with **IC₅₀s** 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 IC₅₀ 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 PDGFR α and T315I-Bcr-Abl^[4].



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