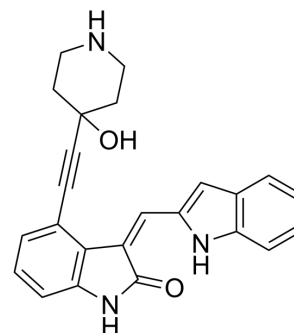


SBI-581

Cat. No.:	HY-139439		
Molecular Formula:	C ₂₄ H ₂₁ N ₃ O ₂		
Molecular Weight:	383.44		
Target:	Ser/Thr Protease		
Pathway:	Metabolic Enzyme/Protease		
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 : 50 mg/mL (130.40 mM; ultrasonic and warming and heat to 60°C)

Concentration	Solvent	Mass	1 mg	5 mg	10 mg
			Concentration	1 mg	5 mg
Preparing Stock Solutions		1 mM	2.6080 mL	13.0399 mL	26.0797 mL
		5 mM	0.5216 mL	2.6080 mL	5.2159 mL
		10 mM	0.2608 mL	1.3040 mL	2.6080 mL

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

BIOLOGICAL ACTIVITY

Description

SBI-581 is an orally active and potent selective serine-threonine kinase TAO3 inhibitor, with an IC₅₀ of 42 nM. SBI-581 promotes TKS5α accumulation at RAB11-positive vesicles. SBI-581 inhibits invadopodia formation. SBI-581 shows reasonable pharmacokinetics in mice using IP injection. SBI-581 shows antitumor activity^[1]. SBI-581 is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAC) with molecules containing Azide groups.

IC₅₀ & Target

IC₅₀: 42 nM (TAO3), 237 nM (MEKK3)^[1]

In Vitro

SBI-581 shows moderate selectivity (> 5-10x) against the majority of a broad panel of kinases^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

SBI-581 (10 mg/kg, IP, once) displays reasonable pharmacokinetics (t_{1/2}=1.5 hr; AUC= 1202 hr*ng/mL; C_{max}= ~2 μM)^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Iizuka S, et al. Serine-Threonine Kinase TAO3-Mediated Trafficking of Endosomes Containing the Invadopodia Scaffold TKS5 α Promotes Cancer Invasion and Tumor Growth. *Cancer Res.* 2021 Mar 15;81(6):1472-1485.

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

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