PDK1-IN-RS2

Cat. No.: HY-114645

CAS No.: 1643958-89-7

Molecular Formula: $C_{15}H_9ClN_2O_2S_3$

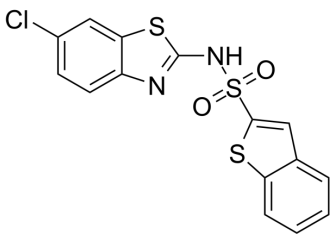
Molecular Weight: 380.89

Target: PDK-1

Pathway: PI3K/Akt/mTOR

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (328.18 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6254 mL	13.1271 mL	26.2543 mL
	5 mM	0.5251 mL	2.6254 mL	5.2509 mL
	10 mM	0.2625 mL	1.3127 mL	2.6254 mL

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

BIOLOGICAL ACTIVITY

Description

PDK1-IN-RS2 is a mimic of peptide docking motif (PIFtide) and is a substrate-selective PDK1 inhibitor with a K_d of 9 μM. PDK1-IN-RS2 suppresses the activation of the downstream kinases S6K1 by PDK1[1].

IC_{50} & Target

Kd: 9 μM (PDK1)[1]

In Vitro

PDK1-IN-RS2 stimulates the catalytic activity of PDK1 toward a peptide substrate by sixfold. The sulfonyl group of PDK1-IN-RS2 interacts with Arg131 through a salt bridge, because the sulfonamide is likely ionized under the crystallization conditions[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Rettenmaier TJ, et al. A small-molecule mimic of a peptide docking motif inhibits the protein kinase PDK1. Proc Natl Acad Sci U S A. 2014 Dec 30;111(52):18590-5.

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

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