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

AZ505

Catalog No: tcsc1735

Available Sizes

Size: 5mg

Size: 10mg

Size: 25mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
1035227-43-0

Formula:
$C_{29}H_{38}Cl_2N_4O_4$

Pathway:
Epigenetics

Target:
Histone Methyltransferase

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 42 mg/mL (72.72 mM)

Observed Molecular Weight:
577.54

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Product Description

AZ505 is a potent and selective **SMYD2** inhibitor with **IC_{50}** of 0.12 μM.

IC50 & Target: IC50: 0.12 μM (SMYD2)[1]

In Vitro: AZ505 is highly selective and shows an activity at submicromolar concentrations in vitro. The IC_{50} of AZ505 for SMYD2 is 0.12 μM, which is >600-fold greater than the IC_{50}s of AZ505 for other histone methyltransferases, such as SMYD3 (IC_{50}>83.3 μM), DOT1L (IC_{50}>83.3 μM) and EZH2 (IC_{50}>83.3 μM)[1]. AZ505 is a potent and selective SMYD2 inhibitor with an IC_{50} of 0.12 μM. The human SMYD (SET and MYND domain-containing protein) family of protein lysine methyltransferases contains five members (SMYD1-5). Moreover, AZ505 fails to inhibit the enzymatic activities of a panel of protein lysine methyltransferases. AZ505 is nominated for ITC binding study with K_d of 0.5 μM. In contrast, the calculated K_d for the p53 substrate peptide is 3.7 μM. AZ505 binding to SMYD2 is driven primarily by entropy, which often suggests that binding is mediated by hydrophobic interactions with few specific hydrogen bonds[2].