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

SP2509

Catalog No: tcsc3822

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
1423715-09-6

Formula:
$C_{19}H_{20}ClN_3O_5S$

Pathway:
Epigenetics

Target:
Histone Demethylase

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 33 mg/mL (75.36 mM)

Observed Molecular Weight:
437.9

Product Description

SP2509 is a potent and selective antagonist of **lysine specific demethylase 1 (LSD1)** with **IC_{50}** of 13 nM.

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IC50 & Target: IC50: 13 nM (LSD1)[1]

In Vitro: SP2509 (250, 500, 1000 nM) inhibits LSD1 activity, depletes colony growth and induces apoptosis and cell death of cultured human acute myeloid leukemia cells, and increases H3K4Me3 on the promoters of p57 Kip, KLF4, and p21 and induces mRNA expression of p57Kip, KLF4 and p21 in AML cells. SP2509 (250, 1000 nM) induces features of morphologic differentiation of cultured and primary AML cells. Besides, SP2509 in combination with PS exerts synergistic lethal activity against cultured and primary AML cells[1]. SP2509 does not destabilize the CoREST-LSD1 interaction, and has no major destabilizing effect on the CRC. SP2509 (1 or 10 μM) induces cell death, but there are no morphological changes at a low concertation of 0.1 μM. SP2509 likewise interferes with the viability of medulloblastoma cells[2].

In Vivo: Treatment with SP2509 (25 mg/kg) and/or PS (5 mg/kg) significantly enhances PS-mediated loss of viability of $CD34^+$ primary AML cells and improves the survival of mice bearing AML xenografts and primagrafts[2].