Pim-1 kinase inhibitor 9

Cat. No.: HY-163119

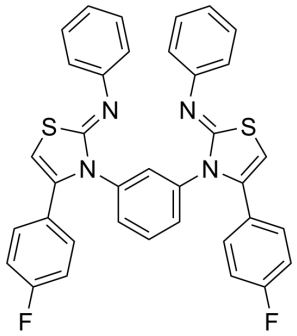
Molecular Formula: $C_{36}H_{24}F_2N_4S_2$

Molecular Weight: 614.73

Target: Pim

Pathway: JAK/STAT Signaling

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Pim-1 kinase inhibitor 9 (compound 8b) is a selective inhibitor against Pim-1 kinase with IC_{50} value of 0.24 μM. Pim-1 kinase inhibitor 9 inhibits cell cycle of T47D at S phase. Pim-1 kinase inhibitor 9 reveals antitumor activity[1].

IC_{50} & Target

PIM1	PIM2
0.24 μM (IC_{50})	10.53 μM (IC_{50})

In Vitro

Pim-1 kinase inhibitor 9 inhibits the growth of breast cancer cells T47D with IC_{50}values of 9.8 μM(8b , 48h) and 2.61 μM (8b , 96h)[1].

Pim-1 kinase inhibitor 9 inhibits the activities of Pim-1 kinase and Pim-2 kinase with IC_{50} values of 0.24 μM (Pim-1 kinase) and 10.53 μM (Pim-2 kinase),respectively[1] .

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

Cell Cytotoxicity Assay[1]

Cell Line:	T47D
Concentration:	10 μM
Incubation Time:	48 h and 96 h
Result:	Exhibited cytotoxicity activity to T47D with IC_{50} value of 9.8 μM (48 h) and 2.61μM (96h).

Cell Cycle Analysis[1]

Cell Line:	T47D
Concentration:	10 μM
Incubation Time:	48 h
Result:	Inhibited cell cycle at S phase.

In Vivo

Pim-1 kinase inhibitor 9 (1 mg/kg/once weekly for 3 weeks; i.p.) inhibits the growth of Ehrlich solid tumours in mice by promoting caspase-3 expression and inhibiting the expression of VEGF[1].

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

Animal Model:	swiss albino mice/Ehrlich solid carcinoma model[1]
Dosage:	1 mg/kg
Administration:	i.p. injected once a week, for 3 weeks
Result:	Inhibited growth of Ehrlich solid tumours in mice.

REFERENCES

[1]. Al-Sanea MM,et al., Design, synthesis and cytotoxic evaluation of novel bis-thiazole derivatives as preferential Pim1 kinase inhibitors with in vivo and in silico study. J Enzyme Inhib Med Chem. 2023 Dec;38(1):2166936.

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