

PTC-209 (hydrobromide)

Catalog No: tcsc3024



Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg



Specifications

CAS No:

1217022-63-3

Formula:

$C_{17}H_{14}Br_3N_5OS$

Pathway:

Autophagy

Target:

Autophagy

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Observed Molecular Weight:

576.1

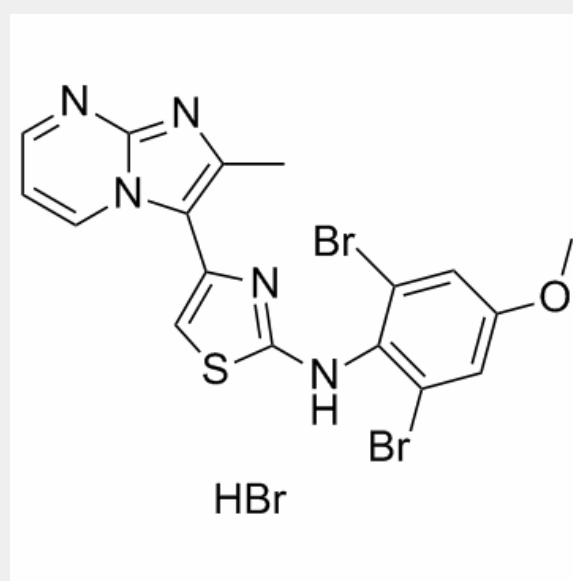
Product Description

PTC-209 hydrobromide is a specific **BMI-1** inhibitor with **IC₅₀** of 0.5 μ M in both GEMS reporter and ELISA assays.

IC50 & Target: IC50: 0.5 μ M (BMI-1, in HT1080 tumor cells)^[1]

In Vitro: PTC-209 is a recently developed inhibitor of BMI1, in biliary tract cancer (BTC) cells. PTC-209 reduces overall viability in BTC cell lines in a dose-dependent fashion (0.04-20 μ M). Treatment with PTC-209 leads to slightly enhanced caspase activity and stop of cell proliferation. Cell cycle analysis reveals that PTC-209 causes cell cycle arrest at the G1/S checkpoint^[2]. PTC-209(100, 200, or 500nM) decreases BMI1 and increases p16 protein expression in canine OSA cell lines. Compare to vehicle control, BMI1 protein expression decreases by 40% and 25% in the Abrams and D17 cell lines, respectively, following 500 nM PTC-209 treatment. In the Moresco cell line, BMI1 protein expression decreases by 16% and 39% following 200nM and 500nM PTC-209 treatment, respectively, as compared to vehicle control. Increases in p16 protein levels could be observed in all cell lines beginning at 100nM PTC-209 and are highest at the 500nM PTC-209 dose for Abrams (120% increase) and Moresco (200% increase), but appeared to top out at 200 nM for the D17 cell line (54% increase)^[3].

In Vivo: Pharmacokinetic analysis demonstrates that PTC-209 (60 mg/kg, subcutaneously once a day) effectively inhibits BMI-1 production in tumor tissue in vivo. Inhibition of BMI-1 with PTC-209 halts growth of preestablished tumors in vivo^[1].



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