BPH-1358 mesylate

Cat. No.: HY-118946B

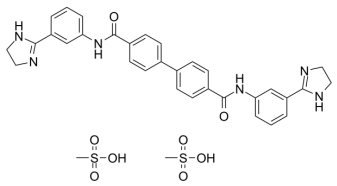
Molecular Formula: $C_{34}H_{36}N_6O_8S_2$

Molecular Weight: 720.82

Target: Bacterial

Pathway: Anti-infection

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



BIOLOGICAL ACTIVITY

Description	BPH-1358 mesylate (NSC50460 mesylate) is a potent human farnesyl diphosphate synthase (FPPS) and undecaprenyl diphosphate synthase (UPPS) inhibitor with IC_{50}s of 1.8 μM and 110 nM, respectively. BPH-1358 mesylate is active against ***S. aureus*** in vitro (MIC ~250 ng/mL)[1][2].
IC_{50} & Target	IC50: 1.8 μM (Human bisphosphonate farnesyl diphosphate synthase)[1]; 100 nM (Undecaprenyl diphosphate synthase)[2]
In Vitro	BPH-1358 is the most potent inhibitor of both E. coli UPPS (EcUPPS) as well as S. aureus UPPS (SaUPPS) with an IC_{50} of 110 nM. BPH-1358 against E. coli and S. aureus with EC_{50} of 300 nM and 290 nM, respectively[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	BPH-1358 is active against S. aureus in vivo (20/20 mice survived in an i.p. infection model with a MRSA strain)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Zhu W, et al. Antibacterial drug leads: DNA and enzyme multitargeting. J Med Chem. 2015 Feb 12;58(3):1215-27.

[2]. Liu YL, et al. Farnesyl diphosphate synthase inhibitors with unique ligand-binding geometries. ACS Med Chem Lett. 2015 Jan 29;6(3):349-54.

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