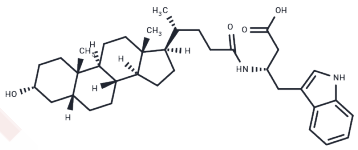
Data Sheet (Cat.No.T26310)

TargetMol

UniPR129

Chemical Properties



CAS No. : 1639159-47-9

Formula: C36H52N2O4

Molecular Weight: 576.81

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	UniPR129 is a highly selective, cell-permeable, competitive Eph/ephrin antagonist belonging to the class of L-tryptophan derivatives of lithocholic acid. UniPR129 inhibits the interaction between EphA2 and ephrin-A1 with an IC_{50} of 945 nM and a Ki of 345 nM. UniPR129 inhibits angiogenesis in HUVEC cells with an IC_{50} of 5.2 μM. UniPR129 exhibits antitumor and neuroprotective effects and can be used in research on cancer and neurological diseases.
Targets(IC50)	Others,Ephrin Receptor
In vitro	Methods: Human umbilical vein endothelial cells (HUVECs) were incubated with 0-50 μM UniPR129 for 1 hour, then seeded onto Matrigel; 15 hours later, the formed multi-lumen structures were counted. Results: UniPR129 effectively inhibited in vitro angiogenesis, with an IC_{50} of 6.2 μM.[1]
In vivo	Methods: To investigate the antitumor effects of UniPR129, APC min/J mice (C57BL6/J background, male, 5 weeks old) were selected and administered UniPR129 (30 mg/kg) orally starting at 5 weeks of age for 8 weeks. Results: Treatment with UniPR129 reduced the number of ileal adenomas by 42% and the total number of intestinal adenomas by 29%; adenoma diameter was significantly reduced, and no large or giant adenomas were observed.[2]

Solubility Information

Solubility	H2O: < 1?mg/mL?(insoluble) DMSO: 26.66 mg/mL (46.22 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7337 mL	8.6684 mL	17.3367 mL
5 mM	0.3467 mL	1.7337 mL	3.4673 mL
10 mM	0.1734 mL	0.8668 mL	1.7337 mL
50 mM	0.0347 mL	0.1734 mL	0.3467 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Hassan-Mohamed I, Giorgio C, Incerti M, et al. UniPR129 is a competitive small molecule Eph-ephrin antagonist blocking in vitro angiogenesis at low micromolar concentrations. Br J Pharmacol. 2014;171(23):5195-5208.
Corrado M, Giorgio C, Barocelli E, et al. Evaluation of the Anti-Tumor Activity of Small Molecules Targeting Eph/Ephrins in APC min/J Mice. Pharmaceuticals (Basel). 2020;13(4):69. Published 2020 Apr 16.
Giorgio C, Russo S, Incerti M, Bugatti A, Vacondio F, Barocelli E, Mor M, Pala D, Hassan-Mohamed I, Gioiello A, Rusnati M, Lodola A, Tognolini M. Biochemical characterization of EphA2 antagonists with improved physico-chemical properties by cell-based assays and surface plasmon resonance analysis. Biochem Pharmacol. 2016 Jan 1;99:18-30. doi: 10.1016/j.bcp.2015.10.006. Epub 2015 Oct 14. PubMed PMID: 26462575.
Callegari D, Pala D, Scalvini L, Tognolini M, Incerti M, Rivara S, Mor M, Lodola A. Comparative Analysis of Virtual Screening Approaches in the Search for Novel EphA2 Receptor Antagonists. Molecules. 2015 Sep 17;20(9):17132-51. doi: 10.3390/molecules200917132. PubMed PMID: 26393553.

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