

Product Data Sheet

Product Name: Radioprotectin-1

Cat. No.: GC34752

Chemical Properties

Cas. No. 1622006-09-0

SMILES O=C(O)C1=CC(Cl)=CC=C1S(=O)(=O)NCCCCN(C(C2=CC=CC3=CC=CC4=C23)=O)C4=O=O

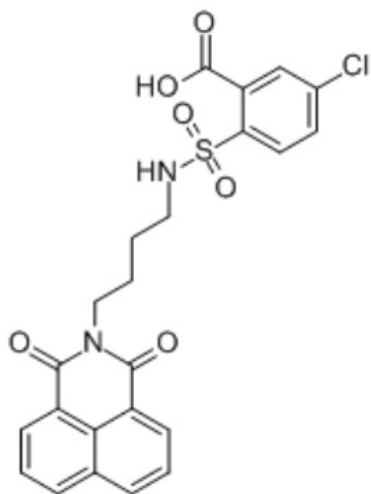
Formula $C_{23}H_{19}ClN_2O_6S$ M.Wt 486.92

Solubility DMSO : 125 mg/mL (256.72 mM); Water : < 0.1 mg/mL (insoluble) Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Radioprotectin-1 is a potent and specific nonlipid agonist of LPA2, with an EC50 value of 25 nM for murine LPA2 subtype[1]. EC50: 25 nM (murine LPA2 subtype)[1]

Radioprotectin-1 is a potent agonist of LPA2 with an EC50 of 5 pM and functions as a full agonist at the human ortholog of LPA2[1]. Radioprotectin-1 (0-3 μM; 15 minutes) effectively reduces apoptosis

Caution: Product has not been fully validated for medical applications. For research use only.

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induced by γ -irradiation and the radiomimetic drug Adriamycin in cells that expressed LPA2 either endogenously or after transfection[1]. Cell Viability Assay[1] Cell Line: MEF cells , IEC-6 cells

Radioprotectin-1 is a high-potency specific agonist of the murine LPA2 GPCR [1].Radioprotectin-1 (0.1 mg/kg, 0.3 mg/kg; s.c.; every 12 hours; for 3 days) decreases the mortality of C57BL/6 mice in models of the hematopoietic acute radiation syndromes (HE-ARS) and gastrointestinal acute radiation syndromes (GI-ARS) [1].Radioprotectin-1 exerts its radioprotective and radiomitigative action through specific activation of the upregulated LPA2 GPCR in Lgr5+stem cells[1]. Animal Model: 8-10 weeks old C57BL/6 female mice bearing total body irradiation (TBI) [1]

[1]. Kuo B, et al. The LPA2 receptor agonist Radioprotectin-1 spares Lgr5-positive intestinal stem cells from radiation injury in murine enteroids. Cell Signal. 2018 Nov;51:23-33.

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