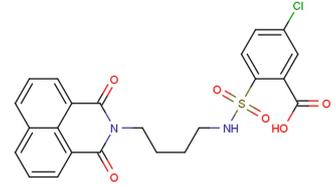


## Data Sheet (Cat.No.T12684)

### Radioprotectin-1

#### Chemical Properties

CAS No.:	1622006-09-0
Formula:	C <sub>23</sub> H <sub>19</sub> CIN <sub>2</sub> O <sub>6</sub> S
Molecular Weight:	486.92
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



#### Biological Description

Description	Radioprotectin-1 is a potent and specific nonlipid lysophosphatidic acid receptor 2 (LPA2) agonist (murine LPA2 subtype with an EC <sub>50</sub> value of 25 nM).
Targets(IC <sub>50</sub> )	murine LPA2 subtype: (EC <sub>50</sub> ) 25 nM
In vitro	Radioprotectin-1 effectively reduces apoptosis induced by $\gamma$ -irradiation and the radiomimetic drug Adriamycin in cells that expressed LPA2 either endogenously or after transfection. Radioprotectin-1 is a potent LPA2 agonist (EC <sub>50</sub> of 5 $\mu$ M) and functions as a full agonist at the human ortholog of LPA2.
In vivo	Radioprotectin-1 exerts its radioprotective and radiomitigative action through specific activation of the upregulated LPA2 GPCR in Lgr5+ stem cells. Radioprotectin-1 decreases the mortality of C57BL/6 mice in models of the hematopoietic acute radiation syndromes (HE-ARS) and gastrointestinal acute radiation syndromes (GI-ARS).

#### Solubility Information

Solubility	DMSO: 125 mg/mL (256.72 mM) ( $< 1$ mg/ml refers to the product slightly soluble or insoluble)
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#### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.054 mL	10.269 mL	20.537 mL
5 mM	0.411 mL	2.054 mL	4.107 mL
10 mM	0.205 mL	1.027 mL	2.054 mL
50 mM	0.041 mL	0.205 mL	0.411 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

#### Reference

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.

Inhibitors · Natural Compounds · Compound Libraries

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