

## RCTR1

## Chemical Properties

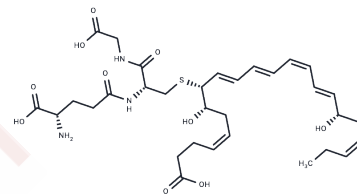
CAS No. : 2095607-49-9

Formula: C32H47N3O10S

Molecular Weight: 665.8

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	Resolvin conjugate in tissue regeneration 1 (RCTR1) is a specialized pro-resolving mediator (SPM) biosynthesized from docosahexaenoic acid by isolated human macrophages and apoptotic polymorphonuclear (PMN) neutrophils. It has been found in human spleen and bone marrow. RCTR1 is produced via lipoxygenase-mediated oxidation of DHA to 7(S)-8-epoxy-17(S)-HDHA, which is conjugated to glutathione. RCTR1 (10 nM) increases phagocytosis of E. coli in apoptotic neutrophils in isolated human monocyte-derived macrophages. It decreases chemotaxis induced by leukotriene B4 in isolated human neutrophils when used at a concentration of 10 nM. RCTR1 (1 and 10 nM) accelerates tissue regeneration in planaria. Intraperitoneal administration of RCTR1 (100 ng/animal) shortens the inflammatory resolution period and decreases inflammatory exudate neutrophil infiltration in a mouse model of E. coli-induced peritonitis.
Targets(IC50)	Others

## Solubility Information

Solubility	Ethanol: >0.5 mg/mL, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	1.502 mL	7.5098 mL	15.0195 mL
5 mM	0.3004 mL	1.502 mL	3.0039 mL
10 mM	0.1502 mL	0.751 mL	1.502 mL
50 mM	0.030 mL	0.1502 mL	0.3004 mL

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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

- Dalli, J., Ramon, S., Norris, P.C., et al. Novel proresolving and tissue-regenerative resolvin and protectin sulfido-conjugated pathways *FASEB J.* 29(5)2120-2136(2015)
- de la Rosa, X., Norris, P.C., Chiang, N., et al. Identification and complete stereochemical assignments of the new resolvin conjugates in tissue regeneration in human tissues that stimulate proresolving phagocyte functions and tissue regeneration *Am. J. Pathol.* 188(4)950-966(2018)
- Rodriguez, A.R., and Spur, B.W. First total synthesis of pro-resolving and tissue-regenerative resolvin sulfido-conjugates *Tetrahedron Lett.* 58(16)1662-1668(2017)

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