

Resolvin E4

Chemical Properties

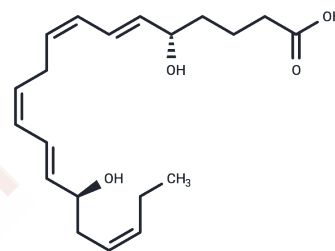
CAS No. : 1781227-87-9

Formula: C₂₀H₃₀O₄

Molecular Weight: 334.45

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 E4 (RvE4) is a member of the specialized pro-resolving mediator (SPM) family of bioactive lipids. It is produced from eicosapentaenoic acid by 15-lipoxygenase (15-LO) via 15(S)-HpEPE and 15S-hydroxy, 5S-HpEPE intermediates in vitro and by isolated human M2 macrophages or polymorphonuclear (PMN) neutrophils under normoxic or hypoxic conditions. RvE4 synthesis is enhanced in M2 macrophage and neutrophil co-cultures, indicating transcellular biosynthesis by a potential 15-LO and 5-LO mechanism. It has been found in mouse inflammatory exudates. RvE4 (10 nM) increases efferocytosis of apoptotic neutrophils or senescent red blood cells (sRBCs) by human M2 macrophages under hypoxic conditions in vitro. Intraperitoneal administration of RvE4 (100 ng/animal) inhibits increases in inflammatory exudate neutrophil infiltration in a mouse model of hemorrhagic peritonitis induced by zymosan A and thrombin. It also increases inflammatory exudate macrophage infiltration and efferocytosis of apoptotic neutrophils and/or RBCs in the same model.
Targets(IC50)	Others, Endogenous Metabolite

Solubility Information

Solubility	DMF: 50 mg/mL (149.5 mM), Sonication is recommended. Ethanol: 50 mg/mL (149.5 mM), Sonication is recommended. PBS (pH 7.2): 0.05 mg/mL (0.15 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.990 mL	14.9499 mL	29.8998 mL
5 mM	0.598 mL	2.990 mL	5.980 mL
10 mM	0.299 mL	1.495 mL	2.990 mL
50 mM	0.0598 mL	0.299 mL	0.598 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

Norris, P.C., Libreros, S., and Serhan, C.N. Resolution metabolomes activated by hypoxic environment. *Sci. Adv.* 5(10) eaax4895(2019)

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