

Product Data Sheet

Product Name: Resolvin E4

Cat. No.: GC48045

Chemical Properties

Cas. No. 1781227-87-9

SMILES O[C@H]([C=C/C=C/C/C=C/C=C/C[C@@H](O)C/C=C/CC)CCCC(O)=O

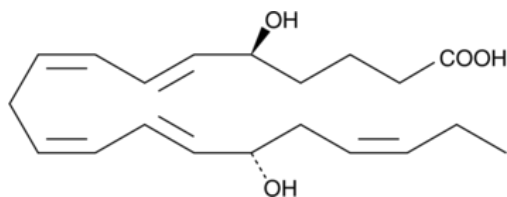
Formula C₂₀H₃₀O₄ M.Wt 334.5

Solubility DMF: 50 mg/ml, Ethanol: 50 mg/ml, PBS (pH 7.2): 0.05 mg/ml
Storage Store at -80°C; Avoid light

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

Resolvin E4 (RvE4) is a member of the specialized pro-resolving mediator (SPM) family of bioactive lipids.¹ 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.

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

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1. 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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