

## Resolvin E1

## Chemical Properties

CAS No. : 552830-51-0

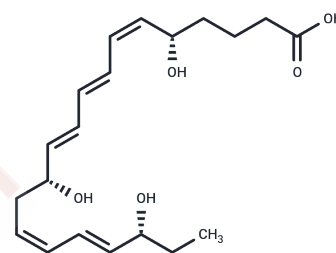
Formula: C<sub>20</sub>H<sub>30</sub>O<sub>5</sub>

Molecular Weight: 350.45

Store at low temperature

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 E1 (RvE1) is an endogenous lipid mediator derived from the omega-3 fatty acid eicosapentaenoic acid (EPA). It exhibits anti-inflammatory properties, activates inflammation resolution, and promotes phagocytic clearance. It prevents 2,4,6-trinitrobenzenesulfonic acid-induced colitis and improves erythrocytosis and severe aplastic anaemia (SAA).
Targets(IC50)	Endogenous Metabolite
In vitro	Resolvin E1 specifically interacts with the LTB <sub>4</sub> receptor BLT1 on neutrophils and ChemR23 on monocytes to regulate leukocytes during inflammation. Resolvin E1 also stimulates the uptake and clearance of local cytokine. Resolvin E1 (0.1-100 nM) gives concentration-dependent inhibition of TNF- $\alpha$ -induced NF- $\kappa$ B activation (EC <sub>50</sub> : ~ 1.0 nM in ChemR23-transfected cells). Resolvin E1 (100 nM) enhances phosphorylation of ERK mitogen-activated protein (MAP) kinase both in peripheral blood monocytes and HEK-ChemR23 cells [2][3].
In vivo	Resolvin E1 (1.0 $\mu$ g per mouse; 50 $\mu$ g/kg; i.p.; on days -8, -1, and 0) protects mice from TNBS colitis[1].

## Solubility Information

Solubility	Ethanol: 40 mg/mL (114.14 mM), Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	--

### Preparing Stock Solutions

---

	1mg	5mg	10mg
1 mM	2.8535 mL	14.2674 mL	28.5347 mL
5 mM	0.5707 mL	2.8535 mL	5.7069 mL
10 mM	0.2853 mL	1.4267 mL	2.8535 mL
50 mM	0.0571 mL	0.2853 mL	0.5707 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

- Arita M, et al. Resolvin E1, an endogenous lipid mediator derived from omega-3 eicosapentaenoic acid, protects against 2,4,6-trinitrobenzene sulfonic acid-induced colitis. *Proc Natl Acad Sci U S A.* 2005 May 24;102(21):7671-6.
- Schwab JM, et al. Resolvin E1 and protectin D1 activate inflammation-resolution programmes. *Nature.* 2007 Jun 14; 447(7146):869-74.
- Hasturk H, et al. Resolvin E1 regulates inflammation at the cellular and tissue level and restores tissue homeostasis in vivo. *J Immunol.* 2007 Nov 15;179(10):7021-9.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481