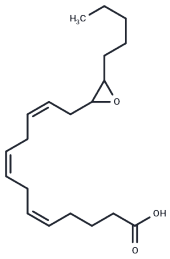
Data Sheet (Cat.No.T35463)

TargetMol

(±)14(15)-EET

Chemical Properties



CAS No. : 197508-62-6

Formula: C20H32O3

Molecular Weight: 320.473

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	(±)14(15)-EET is a metabolite of arachidonic acid that is formed via epoxidation of arachidonic acid by cytochrome P450.[1],[2] It prevents increases in leukotriene B4, ICAM-1, and chemokine (C-C motif) ligand 1 (CCL2) induced by oxidized LDL in primary rat pulmonary artery endothelial cells (RPAECs) when used at a concentration of 1 μM.[3] (±)14(15)-EET induces dilation of preconstricted isolated canine coronary arterioles (EC50 = 0.2 pM).[4] It reduces myocardial infarct size as a percentage of the area at risk in a canine model of ischemia-reperfusion injury induced by left anterior descending coronary artery (LAD) occlusion when administered at a dose of 0.128 mg/kg prior to occlusion or reperfusion.[5]
Targets(IC50)	Others

Solubility Information

Solubility	Ethanol: >50 mg/mL (per Rao Maddipati),Sonication is recommended. DMF: >50 mg/mL (per Rao Maddipati),Sonication is recommended. DMSO: >50 mg/mL (per Rao Maddipati),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1204 mL	15.6021 mL	31.2042 mL
5 mM	0.6241 mL	3.1204 mL	6.2408 mL
10 mM	0.312 mL	1.5602 mL	3.1204 mL
50 mM	0.0624 mL	0.312 mL	0.6241 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

Chacos, N., Falck, J.R., Wixtrom, C., et al. Novel epoxides formed during the liver cytochrome P-450 oxidation of arachidonic acid. Biochem. Biophys. Res. Commun. 104(3), 916-922 (1982).
Oliw, E.H., Guengerich, F.P., and Oates, J.A. Oxygenation of arachidonic acid by hepatic monooxygenases. Isolation and metabolism of four epoxide intermediates. J. Biol. Chem. 257(7), 3771-3781 (1982).
Jiang, J.-X., Zhang, S.-J., Xiong, Y.-K., et al. EETs attenuate ox-LDL-induced LTB4 production and activity by inhibiting p38 MAPK phosphorylation and 5-LO/BLT1 receptor expression in rat pulmonary arterial endothelial cells. PLoS One 10(6), e0128278 (2015).
Oltman, C.L., Weintraub, N.L., VanRollins, M., et al. Epoxyeicosatrienoic acids and dihydroxyeicosatrienoic acids are potent vasodilators in the canine coronary microcirculation. Circ. Res. 83(9), 932-939 (1998).
Nithipatikom, K., Moore, J.M., Isbell, M.A., et al. Epoxyeicosatrienoic acids in cardioprotection: Ischemic versus reperfusion injury. Am. J. Physiol. Heart Circ. Physiol. 291(2), H537-H542 (2006).