Data Sheet (Cat.No.T36215)

TargetMol

17R(18S)-EpETE

Chemical Properties

CAS No. : 725246-18-4

Formula: C20H30O3

Molecular Weight: 318.45

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	17R(18S)-EpETE is an oxylipin and a cytochrome P450 metabolite of eicosapentaenoic acid. 17R(18S)-EpETE activates large-conductance calcium-activated potassium (BKCa) channels, increasing potassium current amplitude by 15-fold in isolated rat cerebral artery vascular smooth muscle cells at +60 mV at 50 nM. 17R(18S)-EpETE also exerts negative chronotropic effects in neonatal rat cardiomyocytes with an EC50 of ~1-2 nM and prevents calcium-induced increases in spontaneous beating. 17R(18S)-EpETE is therefore used in cardiovascular electrophysiology research systems to investigate ion channel modulation, lipid mediator signaling, and cardiac excitability regulation in cellular models.
Targets(IC50)	Potassium Channel

Solubility Information

Solubility	Ethanol: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1402 mL	15.7011 mL	31.4021 mL
5 mM	0.628 mL	3.1402 mL	6.2804 mL
10 mM	0.314 mL	1.5701 mL	3.1402 mL
50 mM	0.0628 mL	0.314 mL	0.628 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

Schwarz, D., Kisselev, P., Ericksen, S.S., et al.Arachidonic and eicosapentaenoic acid metabolism by human CYP1A1: Highly steroselective formation of 17(R), 18(S)-epoxyeicosatetraenoic acidBiochem. Pharmacol.67(8)1445-1457(2004)

Lauterbach, B., Barbosa-Sicard, E., Wang, M.H., et al.Cytochrome P450-dependent eicosapentaenoic acid metabolites are novel BK channel activatorsHypertension39(2 Pt. 2)609-613(2002)

Falck, J.R., Wallukat, G., Puli, N., et al.17(R),18(S)-Epoxyeicosatetraenoic acid, a potent eicosapentaenoic acid (EPA) derived regulator of cardiomyocyte contraction: Structure-activity relationships and stable analoguesJ. Med. Chem.54(12)4109-4118(2011)

Arnold, C., Markovic, M., Blossey, K., et al.Arachidonic acid-metabolizing cytochrome P450 enzymes are targets of omega-3 fatty acidsJ. Biol. Chem.285(43)32720-32733(2010)