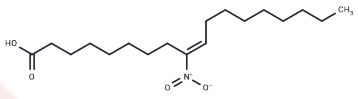
Data Sheet (Cat.No.T36830)

TargetMol

9-Nitrooleate

Chemical Properties



CAS No. : 875685-44-2

Formula: C18H33NO4

Molecular Weight: 327.46

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	9-Nitrooleate is a nitrated fatty acid and a derivative of oleic acid modified by nitration, with potential applications in the research of vascular-related diseases.
Targets(IC50)	PPAR
In vitro	Methods: This review summarizes the sources of 9-Nitrooleate and the anti-inflammatory and vascular protective mechanisms of nitro fatty acids, focusing on their signaling pathways and effects in cardiovascular disease models. Results: 9-Nitrooleate is a nitro fatty acid generated by the reaction of nitric oxide (NO) with unsaturated fatty acids under oxidative stress conditions. This type of substance can exert anti-inflammatory and vascular protective effects by activating the PPARγ pathway or non-PPAR pathways, and can antagonize angiotensin II receptors in cardiovascular disease models, thereby improving hypertension.

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0538 mL	15.269 mL	30.5381 mL
5 mM	0.6108 mL	3.0538 mL	6.1076 mL
10 mM	0.3054 mL	1.5269 mL	3.0538 mL
50 mM	0.0611 mL	0.3054 mL	0.6108 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

Jiyoung Kim, et al. Surface Active Salivary Metabolites Indicate Oxidative Stress and Inflammation in Obstructive Sleep Apnea. Allergy Asthma Immunol Res. 2023 May;15(3):316-335.
Gorczynski MJ, et al. Activation of peroxisome proliferator-activated receptor gamma (PPARgamma) by nitroalkene fatty acids: importance of nitration position and degree of unsaturation. J Med Chem. 2009;52(15):4631-4639.