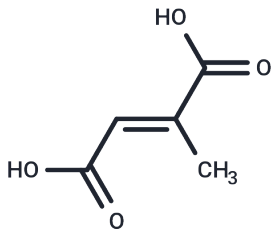
Data Sheet (Cat.No.T20880)

TargetMol

Mesaconic acid

Chemical Properties



CAS No. : 498-24-8

Formula: C5H6O4

Molecular Weight: 130.1

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	Mesaconic acid (Methylfumaric acid) is used as a fire retardant, as recent studies revealed this acid is a competitive inhibitor of fumarate reduction.
Targets(IC50)	Others,Endogenous Metabolite

Solubility Information

Solubility	DMSO: 55 mg/mL (422.75 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	7.6864 mL	38.432 mL	76.864 mL
5 mM	1.5373 mL	7.6864 mL	15.3728 mL
10 mM	0.7686 mL	3.8432 mL	7.6864 mL
50 mM	0.1537 mL	0.7686 mL	1.5373 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

BACHMANN WE, SCOTT LB. The reaction of 1-vinylnaphthalene and 6-methoxy-1-vinylnaphthalene with citraconic anhydride, fumaric acid and mesaconic acid. J Am Chem Soc. 1948 Apr;70(4):1462-8. PubMed PMID: 18915765.

BACHMANN WE, SCOTT LB. The reaction of anthracene with maleic and fumaric acid and their derivatives and with citraconic anhydride and mesaconic acid. J Am Chem Soc. 1948 Apr;70(4):1458-61. PubMed PMID: 18915764.

Ahuja M, Ammal Kaidery N, Yang L, Calingasan N, Smirnova N, Gaisin A, Gaisina IN, Gazaryan I, Hushpulian DM, Kaddour-Djebbar I, Bollag WB, Morgan JC, Ratan RR, Starkov AA, Beal MF, Thomas B. Distinct Nrf2 Signaling Mechanisms of Fumaric Acid Esters and Their Role in Neuroprotection against 1-Methyl-4-Phenyl-1,2,3,6-Tetrahydropyridine-Induced Experimental Parkinson's-Like Disease. J Neurosci. 2016 Jun 8;36(23):6332-51. doi: 10.1523/JNEUROSCI.0426-16.2016. PubMed PMID: 27277809; PubMed Central PMCID: PMC4899530.

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