Malic acid

Cat. No.: HY-Y1311

CAS No.: 6915-15-7

Molecular Formula: $C_4H_6O_5$

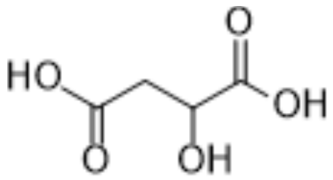
Molecular Weight: 134.09

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (745.77 mM; Need ultrasonic)

H_2O : 100 mg/mL (745.77 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	7.4577 mL	37.2884 mL	74.5768 mL
5 mM	1.4915 mL	7.4577 mL	14.9154 mL
10 mM	0.7458 mL	3.7288 mL	7.4577 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 110 mg/mL (820.34 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (15.51 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (15.51 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (15.51 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Malic acid (Hydroxybutanedioic acid) is a dicarboxylic acid that is naturally found in fruits such as apples and pears. It plays a role in many sour or tart foods.

IC_{50} & Target

Human Endogenous Metabolite

CUSTOMER VALIDATION

- Food Chem. 2022: 134807.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Dai Z, et al. Current advance in biological production of malic acid using wild type and metabolic engineered strains. Bioresour Technol. 2018 Jun;258:345-353.

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