meso-Erythritol

Cat. No.: HY-100551

CAS No.: 149-32-6

Molecular Formula: $C_4H_{10}O_4$

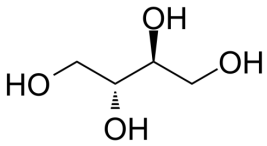
Molecular Weight: 122.12

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

Storage: -20°C, stored under nitrogen

* In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



Relative stereochemistry

SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (818.87 mM; Need ultrasonic)

H_2O : ≥ 100 mg/mL (818.87 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	8.1887 mL	40.9433 mL	81.8867 mL
5 mM	1.6377 mL	8.1887 mL	16.3773 mL
10 mM	0.8189 mL	4.0943 mL	8.1887 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 100 mg/mL (818.87 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (20.47 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (20.47 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (20.47 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

meso-Erythritol is a sugar alcohol that occurs naturally in a variety of foods (e.g., pear, watermelon), is 60-80% as sweet as sucrose, and is an approved low-calorie sweetener food additive[1].

IC_{50} & Target

Human Endogenous Metabolite

REFERENCES

[1]. Hootman KC, et al. Erythritol is a pentose-phosphate pathway metabolite and associated with adiposity gain in young adults. Proc Natl Acad Sci U S A. 2017 May 23;114(21):E4233-E4240.

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