α-Isopropylmalate

Cat. No.: HY-N9960

CAS No.: 3237-44-3

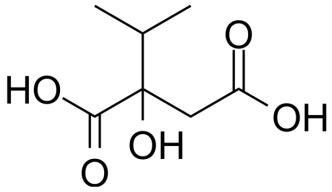
Molecular Formula: $C_7H_{12}O_5$

Molecular Weight: 176.17

Target: Others

Pathway: Others

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : ≥ 250 mg/mL (1419.08 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	5.6763 mL	28.3817 mL	56.7634 mL
5 mM	1.1353 mL	5.6763 mL	11.3527 mL
10 mM	0.5676 mL	2.8382 mL	5.6763 mL

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

BIOLOGICAL ACTIVITY

Description

α-Isopropylmalate (α-IPM) is the leucine biosynthetic precursor in Yeast[1].

In Vitro

α-Isopropylmalate (500 μM) increases LEU3 protein (Leu3p)-dependent transcription[1].
α-Isopropylmalate (10 mM, 48 h) increases reporter gene expression in preadipocytes (30A5)[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Sze JY, et al. In vitro transcriptional activation by a metabolic intermediate: activation by Leu3 depends on alpha-isopropylmalate. Science. 1992 Nov 13;258(5085):1143-5.

[2]. Guo H, et al. Regulation of transcription in mammalian cells by yeast Leu3p and externally supplied inducer. FEBS Lett. 1996 Jul 22;390(2):191-5.

Caution: Product has not been fully validated for medical applications. For research use only.

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