Diethyl butylmalonate

Cat. No.: HY-44178

CAS No.: 133-08-4

Molecular Formula: $C_{11}H_{20}O_4$

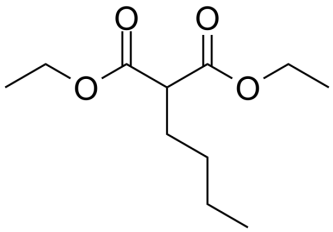
Molecular Weight: 216.27

Target: Bacterial

Pathway: Anti-infection

Storage:

Pure form	-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 (462.38 mM; Need ultrasonic)

H_2O : 1 mg/mL (4.62 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.6238 mL	23.1192 mL	46.2385 mL
5 mM	0.9248 mL	4.6238 mL	9.2477 mL
10 mM	0.4624 mL	2.3119 mL	4.6238 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (11.56 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (11.56 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (11.56 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Diethyl butylmalonate exhibits toxicity to T. pyriformis, with a log($IGC50^{-1}$) of 0.557[1].

REFERENCES

[1]. T I Netzeva, et al. Partial least squares modelling of the acute toxicity of aliphatic compounds to Tetrahymena pyriformis. SAR QSAR Environ Res. 2003 Aug;14(4):265-83.

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

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