Diethyl 3-oxopentanedioate

Cat. No.: HY-W014799

CAS No.: 105-50-0

Molecular Formula: $C_9H_{14}O_5$

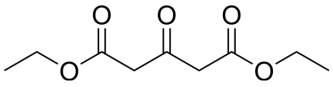
Molecular Weight: 202.21

Target: Biochemical Assay Reagents

Pathway: Others

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 (494.54 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.9454 mL	24.7268 mL	49.4535 mL
	5 mM	0.9891 mL	4.9454 mL	9.8907 mL
	10 mM	0.4945 mL	2.4727 mL	4.9454 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 (12.36 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (12.36 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (12.36 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Diethyl 3-oxopentanedioate is a biochemical reagent that can be used as a biological material or organic compound for life science related research.

In Vitro

Synthesis of 1-substituted 4-ethoxycarbonyl-5-(ethoxycarbonylmethyl) pyrazoles Diethyl acetone-1, 3-dicarboxylate reacts with N, N-dimethylforma-mide dimethyl acetal (DMFDMA) in ethanol at room temperature. Unexpected product dichotomy is produced in the Biginelli-like condensation of 2-hydroxybenzaldehyde with urea or thiourea and dimethyl or diethyl

	acetone-1,3-dicarboxylate, respectively, as active methylene components. Ethyl 2-amino-4-(2-ethoxy-2-oxoethyl)thiazole-5-carboxylate (2a), prepared from diethylacetone-1,3-dicarboxylate, sulfuryl chloride and thiourea. Synthesis of diethyl 2,2-diethyl-3,5-dioxopimelate by the reaction of ethyl 3-chloro-3-oxo-2, 2-dimethylpropionate with diethyl acetone-1,3-dicarboxylate. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA