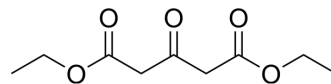


Diethyl 3-oxopentanedioate

Cat. No.:	HY-W014799
CAS No.:	105-50-0
Molecular Formula:	C ₉ H ₁₄ O ₅
Molecular Weight:	202.21
Target:	Biochemical Assay Reagents
Pathway:	Others
Storage:	<div>Pure form</div> <div>-20°C 3 years</div> <div>4°C 2 years</div> <div>In solvent</div> <div>-80°C 6 months</div> <div>-20°C 1 month</div>



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (494.54 mM)
 * "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	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

- 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
- 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
- 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-dimethylformamide 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, sulfur 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.

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

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