

(2R)-Octyl- α -hydroxyglutarate

Chemical Properties

CAS No. : 1391194-67-4

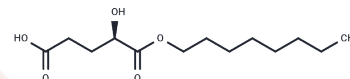
Formula: C₁₃H₂₄O₅

Molecular Weight: 260.33

Keep away from moisture

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	(2R)-Octyl- α -hydroxyglutarate is a modified derivative of the D-isomer of 2-hydroxyglutarate. (2R)-Octyl- α -hydroxyglutarate can improve adenine-induced arterial calcification in rats and inhibit pancreatic tissue damage, making it suitable for research on vascular calcification (VC) and acute pancreatitis.
Targets(IC50)	Others
In vitro	Methods: IDH1 wild-type (IDH1-WT) HeLa cells were treated with (2R)-Octyl- α -hydroxyglutarate. Results: This compound dose-dependently increased the number of double-strand breaks (DSBs) in cells at the logarithmic growth phase, and is commonly used to investigate the effect of D-2-hydroxyglutarate on mitochondrial oxidative processes in IDH1-mutated cancer cells.

Solubility Information

Solubility	DMSO: 80 mg/mL (307.3 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (12.68 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.8413 mL	19.2064 mL	38.4128 mL
5 mM	0.7683 mL	3.8413 mL	7.6826 mL
10 mM	0.3841 mL	1.9206 mL	3.8413 mL
50 mM	0.0768 mL	0.3841 mL	0.7683 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Sulkowski PL, et al. 2-Hydroxyglutarate produced by neomorphic IDH mutations suppresses homologous recombination and induces PARP inhibitor sensitivity. *Sci Transl Med.* 2017 Feb 1;9(375).

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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