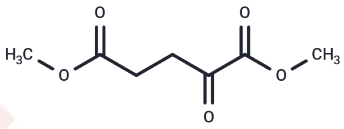
Data Sheet (Cat.No.T71961)

TUN-92046

Chemical Properties



CAS No. :	13192-04-6
Formula:	C7H10O5
Molecular Weight:	174.15
Storage:	Store under nitrogen,Store at low temperature Pure form: -20°C for 3 years | In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.

Biological Description

Description	TUN-92046 (Dimethyl 2-oxoglutarate) is a membrane-permeable alpha-ketoglutarate analogue that inhibits maladaptive autophagy in pressure overloading induced cardiomyopathy.
Targets(IC50)	Others,Endogenous Metabolite,Autophagy

Solubility Information

Solubility	H2O: 100 mg/mL (574.22 mM),Sonication is recommended. DMSO: 50 mg/mL (287.11 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: 2.5 mg/mL (14.36 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.7422 mL	28.7109 mL	57.4218 mL
5 mM	1.1484 mL	5.7422 mL	11.4844 mL
10 mM	0.5742 mL	2.8711 mL	5.7422 mL
50 mM	0.1148 mL	0.5742 mL	1.1484 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

Faulkner A, et al. Dimethyl-2-oxoglutarate improves redox balance and mitochondrial function in muscle pericytes of individuals with diabetes mellitus. Diabetologia. 2020 Oct;63(10):2205-2217.
Wu W, Yang Y L, Wang T, et al.Ginsenoside compound K restrains hepatic fibrotic response by dual-inhibition of GLS1 and LDHA.Phytomedicine.2024: 156223.