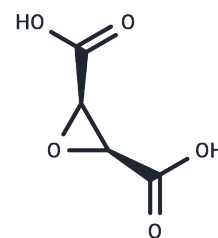


## cis-Epoxysuccinic acid

## Chemical Properties

CAS No. : 16533-72-5  
Formula: C<sub>4</sub>H<sub>4</sub>O<sub>5</sub>  
Molecular Weight: 132.07  
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	cis-Epoxysuccinic acid is a potential agonist of Succinate receptor 1 and inhibitor of Isocitrate lyase 1 for use in biochemical experiments.
Targets(IC50)	Others,Succinate Receptor 1 (SUCNR1)
In vitro	In vitro, cis-Epoxysuccinic acid acts as a potent agonist of the succinate receptor (SUCNR1), with enhanced efficacy across several assays (e.g., cAMP inhibition, calcium mobilization, TGF- $\alpha$ shedding, and $\beta$ -arrestin-3 recruitment). Cis-Epoxysuccinic acid suppresses cAMP levels with an EC <sub>50</sub> of 2.7 $\mu$ M (pEC <sub>50</sub> = 5.57), making Cis-Epoxysuccinic acid approximately 10-20 times more potent than succinic acid[1].
In vivo	In vivo, cis-Epoxysuccinic acid significantly increases blood pressure in rats via SUCNR1 activation, demonstrating comparable potency to succinic acid[1].

## Solubility Information

Solubility	DMSO: 200 mg/mL (1514.35 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	7.5717 mL	37.8587 mL	75.7174 mL
5 mM	1.5143 mL	7.5717 mL	15.1435 mL
10 mM	0.7572 mL	3.7859 mL	7.5717 mL
50 mM	0.1514 mL	0.7572 mL	1.5143 mL

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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

Geubelle P, et al. Identification and pharmacological characterization of succinate receptor agonists. Br J Pharmacol. 2017 May;174(9):796-808.

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