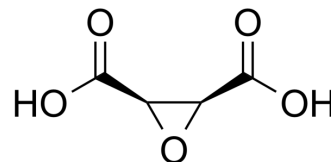


## cis-Epoxy succinic acid

Cat. No.:	HY-125791
CAS No.:	16533-72-5
Molecular Formula:	C <sub>4</sub> H <sub>4</sub> O <sub>5</sub>
Molecular Weight:	132
Target:	Succinate Receptor 1
Pathway:	GPCR/G Protein
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 250 mg/mL (1893.94 mM)  
\* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		Concentration	1 mg	5 mg	10 mg
	1 mM		7.5758 mL	37.8788 mL	75.7576 mL
	5 mM		1.5152 mL	7.5758 mL	15.1515 mL
	10 mM		0.7576 mL	3.7879 mL	7.5758 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

cis-Epoxy succinic acid is a succinate receptor (SUCNR1/GPR91) agonist. cis-Epoxy succinic acid inhibits cAMP levels with an EC<sub>50</sub> value of 2.7 μM. cis-Epoxy succinic acid can be used for the research of cardiovascular system<sup>[1]</sup>.

#### In Vitro

cis-Epoxy succinic acid (1-100 μM; 10 min) affects cAMP levels of HEK293 cells<sup>[1]</sup>.  
cis-Epoxy succinic acid (0.1 μM-100 mM; 1 h) agonists SUCNR1 pathways without affects succinate dehydrogenase<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### Cell Viability Assay<sup>[1]</sup>

Cell Line:	HEK293 cells
Concentration:	1, 10 and 100 μM
Incubation Time:	10 min
Result:	Inhibited cAMP levels with an EC <sub>50</sub> value of 2.7 μM.

#### Cell Viability Assay<sup>[1]</sup>

	Cell Line:	HEK293 cells
	Concentration:	0.1 $\mu$ M-100 mM
	Incubation Time:	1 hour
	Result:	Induced the Gq pathway, recruited arrestin 3 and elicited $[Ca^{2+}]_i$ mobilization with EC <sub>50</sub> values of 42, 74 and 191 $\mu$ M, respectively.
<b>In Vivo</b>	cis-Epoxy succinic acid (1 mg/kg; i.v. once) has an effect on the blood pressure of rats <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Male Wistar rats <sup>[1]</sup>
	Dosage:	1 mg/kg
	Administration:	Intravenous injection; 1 mg/kg once
	Result:	Showed in vivo activity and increased blood pressure after injection.

## REFERENCES

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

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

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