

## Data Sheet (Cat.No.T19291)

DL-threo-2-methylisocitrate sodium

### Chemical Properties

CAS No.:	T19291
Formula:	C <sub>14</sub> H <sub>14</sub> Na <sub>6</sub> O <sub>14</sub>
Molecular Weight:	544.19
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



### Biological Description

Description	DL-threo-2-methylisocitrate is a substrate of isocitrate lyase 1 (ICL1). Using Michaelis-Menten nonlinear least squares fitting, kcat value was 5.24 s <sup>-1</sup> , the Km of the purified recombinant ICL1 of threonine-D(s)L(s)-isocitrate (ICA) was 188 μM. The Km of DL-threo-2-methylisocitrate (MICA) is approximately four times higher at 718 μM, and the kcat is 1.25 s <sup>-1</sup> .
Targets(IC <sub>50</sub> )	Others: None

### Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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#### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.838 mL	9.188 mL	18.376 mL
5 mM	0.368 mL	1.838 mL	3.675 mL
10 mM	0.184 mL	0.919 mL	1.838 mL
50 mM	0.037 mL	0.184 mL	0.368 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

#### Reference

1. Gould TA, et al. Dual role of isocitrate lyase 1 in the glyoxylate and methylcitrate cycles in Mycobacterium tuberculosis. Mol Microbiol. 2006 Aug;61(4):940-7.

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