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## Product Data Sheet

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Product Name: DL-threo-2-methylisocitrate

Cat. No.: GC35880

### Chemical Properties

Cas. No. 71183-66-9

SMILES O[C@@](C)(C(O)=O)[C@@]([H])(C(O)=O)CC(O)=O.O[C@](C)(C(O)=O)[C@]([H])(C(O)=O)CC(O)=O

Formula  $C_{14}H_{20}O_{14}$  M.Wt 412.3

Solubility Soluble in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

### Background

DL-threo-2-methylisocitrate is a substrate of isocitrate lyase 1 (ICL1). IC50 value: Target: The Km of purified recombinant ICL1 for threo-D(s)L(s)-isocitrate (ICA) was determined to be 188 μM using Michaelis-Menten non-linear least squares fit, with a kcat of 5.24 s<sup>-1</sup>. The Km for DL-threo-2-methylisocitrate (MICA) was approximately fourfold higher at 718 μM with a kcat of 1.25 s<sup>-1</sup>.

[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.

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

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