
Product Data Sheet

Product Name: TM-1
Cat. No.: GC65502

Chemical Properties

Cas. No. 921099-13-0

Formula C₂₆H₃₂N₂O₆ M.Wt 468.54

Solubility 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

TM-1 is a potent inhibitor of pyruvate dehydrogenase kinase (PDHK1). TM-1 inhibits PDHK1 and PDHK2 with IC₅₀s of 2.97 μM and 5.2 μM, respectively. TM-1 blocks pyruvate dehydrogenase complex (PDHC) phosphorylation, and inhibits cell proliferation[1].

TM-1 (0-10 μM) inhibits PDHK1 activity with the inhibition rate of 80.5% (dosage at 10 μM) and an IC₅₀ value of 2.97 μM[1]. TM-1 (0-2.1 μM; 12 h) shows anti-osteosarcoma activity and inhibits MG-63 cells with an EC₅₀ value of 14.5 μM[1]. TM-1 (3, 6, 12 μM; 24 h) decreases PDHC phosphorylation of both Ser293 and Ser232 sites in a dose-dependent manner[1].

[1]. Fang A, et al. Identification of pyruvate dehydrogenase kinase 1 inhibitors with anti-osteosarcoma activity. *Bioorg Med Chem Lett*. 2017 Dec 15;27(24):5450-5453.

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

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