

Product Data Sheet

Product Name: Copper ionophore I

Cat. No.: GC81544

Chemical Properties

Cas. No. 101264-90-8

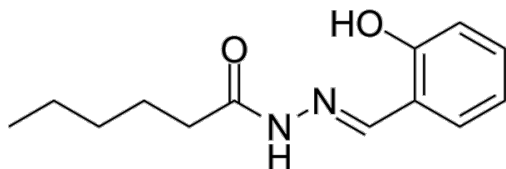
Formula $C_{13}H_{18}N_2O_2$ M.Wt 234.29

Solubility DMSO: 50 mg/mL (213.41 mM; Need ultrasonic) 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

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

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Copper ionophore I is an efficient copper ion carrier. Copper ionophore I can regulate various intracellular copper levels to induce cuproptosis, such as 4T1 ($IC_{50} = 0.45 \mu M$) and MDA-MB-231 ($IC_{50} = 1.21 \mu M$) cells. Copper ionophore I can induce an increase in ROS and cause mitochondrial dysfunction. Copper ionophore I can reduce the expression of FDX1, DLAT, and LIAS proteins. Copper ionophore I can activate immune related pathways and promote T cell infiltration. Copper ionophore I can be used for cancer research [1].

References:

[1]. Yu L, et al. Rational design of copper ionophores for efficient induction of cuproptosis via simple n-alkyl modification. Eur J Med Chem. 2026 Jan 5;301:118257.

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