

Product Data Sheet

Product Name: ALDOA-IN-1

Cat. No.: GC81447

Chemical Properties

Cas. No.

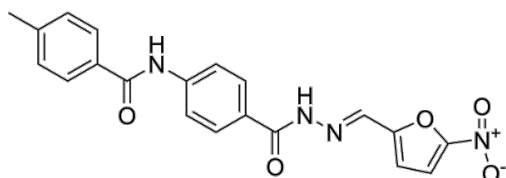
Formula $C_{20}H_{16}N_4O_5$ M.Wt 392.36

Solubility DMSO: 100 mg/mL (254.87 mM; ultrasonic and warming and heat to 60°C) 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

ALDOA-IN-1 is an aldolase A (ALDOA) inhibitor. ALDOA-IN-1 directly inhibits ALDOA enzymatic activity, thereby reducing lactate production, downregulating HIF-1 α expression, and ultimately inducing cancer cell apoptosis. ALDOA-IN-1 can be used for research on colorectal cancer [1].

In Vitro, ALDOA-IN-1 (Compound 3d) (0.1-1000 μ M; 24 h) potently and selectively inhibits proliferation of HT-29 human colorectal cancer cells with an IC₅₀ of 0.101 $\pm$ 0.066 μ M, suppresses

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

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ALDOA activity, reduces lactate production, downregulates HIF-1 α expression, and induces late-stage apoptosis and necrosis in HT-29 cells, while showing minimal cytotoxicity toward L929 mouse fibroblast cells^[1].

References:

[1]. Şenkardeş S, et al. Synthesis, Cytotoxicity, and Molecular Modeling of Novel Benzamide-Derived Hydrazone Derivatives as ALDOA Inhibitors in Colorectal Cancer. Polycyclic Aromatic Compounds. 2026 Jan 9:1-2.

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