

GLUT4-IN-2

Chemical Properties

CAS No. : 2454113-83-6

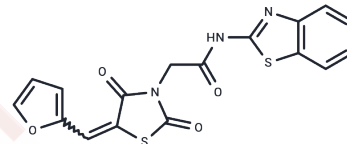
Formula: C17H11N3O4S2

Molecular Weight: 385.42

Store at low temperature

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	GLUT4-IN-2 is a specific GLUT4 inhibitor that inhibits GLUT1 and GLUT4. GLUT4-IN-2 has antitumor activity, induces apoptosis and cell cycle arrest, and can be used for cancer research.
Targets(IC50)	Apoptosis, transporter
In vitro	In CME, K562, KCL-22, MB-231, and HS-27 cells, GLUT4-IN-2 (1-100 μ M; 48 hours) exhibited potent cytotoxicity, with cytotoxic concentration 50% (CC50) values of 1.7, 91.9, 15.3, 45.1, and 44.0 μ M for CME, K562, KCL-22, MB-231, and HS-27 cells, respectively[1].
In vivo	In 8-10 week old SCID mice (CEM xenograft tumor model), GLUT4-IN-2 (50 mg/kg; i.p.; administered on days 1-5, 8-12, 15-18) showed potent antitumor activity in vivo[1].

Solubility Information

Solubility	DMSO: 80 mg/mL (207.57 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (8.56 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5946 mL	12.9729 mL	25.9457 mL
5 mM	0.5189 mL	2.5946 mL	5.1891 mL
10 mM	0.2595 mL	1.2973 mL	2.5946 mL
50 mM	0.0519 mL	0.2595 mL	0.5189 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Tilekar K, et al. Structure guided design and synthesis of furyl thiazolidinedione derivatives as inhibitors of GLUT 1 and GLUT 4, and evaluation of their anti-leukemic potential. Eur J Med Chem. 2020 Sep 15;202:112603.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel: 781-999-4286 E_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481