

DVD-445

Chemical Properties

CAS No. : 2375846-41-4

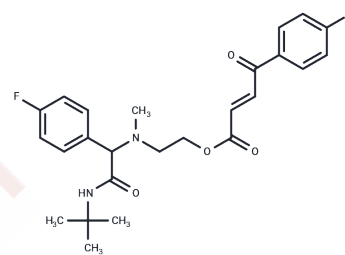
Formula: C₂₅H₂₈F₂N₂O₄

Molecular Weight: 458.5

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	DVD-445 is an effective and covalent thioredoxin reductase 1 (TrxR1) inhibitor with an IC ₅₀ of 0.60 μM. DVD-445 is a peptidomimetic compound synthesised via the Ugi reaction, featuring an electrophilic moiety and demonstrating promising anticancer potential.
Targets(IC ₅₀)	Others
In vitro	DVD-445 exhibits cytotoxic effects on SH-SY5Y cells, U87 cells, HaCaT cells, and peripheral blood mononuclear cells (PBMCs), with IC ₅₀ values of 10.99 μM, 9.70 μM, 8.30 μM, and 55.71 μM, respectively [1].

Solubility Information

Solubility	DMSO: 80 mg/mL (174.48 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.181 mL	10.9051 mL	21.8103 mL
5 mM	0.4362 mL	2.181 mL	4.3621 mL
10 mM	0.2181 mL	1.0905 mL	2.181 mL
50 mM	0.0436 mL	0.2181 mL	0.4362 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

Jovanović M, et al. Novel electrophilic amides amenable by the Ugi reaction perturb thioredoxin system via thioredoxin reductase 1 (TrxR1) inhibition: Identification of DVD-445 as a new lead compound for anticancer therapy. Eur J Med Chem. 2019 Aug 1;181:111580.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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