

GNF-PF-3777

Chemical Properties

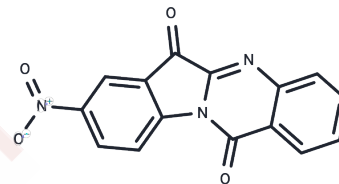
CAS No. : 77603-42-0

Formula: C₁₅H₇N₃O₄

Molecular Weight: 293.23

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	GNF-PF-3777 (8-Nitrotryptanthrin) is a potent inhibitor of human indoleamine 2,3-dioxygenase 2 (hIDO2) with a K_i of 0.97 μ M.
Targets(IC50)	IDO, Indoleamine 2,3-Dioxygenase (IDO)
In vitro	GNF-PF-3777 (Compound 5i) is a potent hIDO2 inhibitor with superior efficiency far better than that of the most frequently-used inhibitor L-1-MT. GNF-PF-3777 demonstrates much stronger inhibition (1.87 μ M) than both L-1-MT (82.53 μ M) and D-1-MT (262.75 μ M). GNF-PF-3777 exhibits significant antitrypanosomal activity (EC ₅₀ : 0.82 μ M) [2]. GNF-PF-3777 has a microplate Alamar Blue assay (MABA) minimum inhibitory concentration (MIC) value of 0.032 μ g/mL. GNF-PF-3777 also has a LORA MIC value of 2.4 μ g/mL, while the majority of analogs lack LORA activity [3].

Solubility Information

Solubility	DMSO: 0.73 mg/mL (2.49 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	3.4103 mL	17.0515 mL	34.1029 mL
5 mM	0.6821 mL	3.4103 mL	6.8206 mL
10 mM	0.341 mL	1.7051 mL	3.4103 mL
50 mM	0.0682 mL	0.341 mL	0.6821 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

Li J, et al. Establishment of a human indoleamine 2, 3-dioxygenase 2 (hIDO2) bioassay system and discovery of tryptanthrin derivatives as potent hIDO2 inhibitors. Eur J Med Chem. 2016 Nov 10;123:171-9.

Scovill J, et al. Antitrypanosomal activities of tryptanthrins. Antimicrob Agents Chemother. 2002 Mar;46(3):882-3.

Hwang JM, et al. Design, synthesis, and structure-activity relationship studies of tryptanthrins as antitubercular agents. J Nat Prod. 2013 Mar 22;76(3):354-67.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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