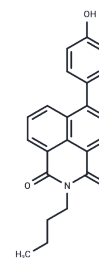


UGT1A1-IN-1

Chemical Properties

CAS No. :	2097024-37-6
Formula:	C ₂₂ H ₁₉ NO ₃
Molecular Weight:	345.39
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	UGT1A1-IN-1 (Compound 2) is a non-competitive inhibitor of UGT1A1 (UDP-glucuronosyltransferase 1A1). It inhibits the 1-O-glucuronidation process mediated by UGT1A1 with an IC ₅₀ of 1.33 μM and a K _i value of 5.02 μM. UGT1A1-IN-1 binds to UGT1A1 at the same ligand-binding site as Bilirubin. Additionally, it displays favorable reactivity in human liver microsomes (HLM) and serves as a practical, high-affinity fluorescent probe substrate for UGT1A1, facilitating the study of bilirubin metabolism disorders and enzyme activity.
Targets(IC ₅₀)	UGT
In vitro	In vitro HLM assays confirm that UGT1A1-IN-1 is a highly specific, non-competitive inhibitor of UGT1A1, with potency independent of substrate concentration. As a fluorescent probe, it generates a significant signal upon glucuronidation, serving as an effective surrogate for bilirubin to monitor UGT1A1 function [1].

Solubility Information

Solubility	DMSO: 14 mg/mL (40.53 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	2.8953 mL	14.4764 mL	28.9528 mL
5 mM	0.5791 mL	2.8953 mL	5.7906 mL
10 mM	0.2895 mL	1.4476 mL	2.8953 mL
50 mM	0.0579 mL	0.2895 mL	0.5791 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

Lv X, et al. A Practical and High-Affinity Fluorescent Probe for Uridine Diphosphate Glucuronosyltransferase 1A1: A Good Surrogate for Bilirubin. *J Med Chem.* 2017 Dec 14;60(23):9664-9675.

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