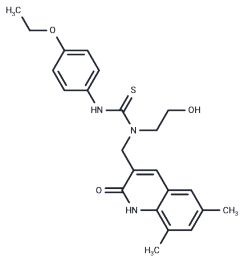
Data Sheet (Cat.No.T13477)

TargetMol

β-Glucuronidase-IN-1

Chemical Properties



CAS No. : 484006-66-8

Formula: C23H27N3O3S

Molecular Weight: 425.54

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	β-Glucuronidase-IN-1 is an E. coli β-glucuronidase (β-glucuronidase) inhibitor with a potent, selective, non-competitive, and orally active IC50 and Ki value of 283 nM and 164 nM, respectively, against E. coli β-glucuronidase.
Targets(IC50)	Antibacterial
In vitro	β-Glucuronidase-IN-1 (0.01-100 μM) inhibits E. coli β-glucuronidase activity in a dose-dependent manner(IC50 and Ki of 283 nM and 164 nM, respectively).[1] β-Glucuronidase-IN-1 (100 μM; 24-72 hours) maintains potent efficacy in living bacterial cells with EC50 of 17.7 nM.[1]
In vivo	β-Glucuronidase-IN-1 (10 μg; oral gavage; twice per day; 11 days) shields the gastrointestinal epithelium of mice from damage induced by CPT-11, preserving the glandular structure in the treated intestinal tissues.[1]

Solubility Information

Solubility	DMSO: 30 mg/mL (70.5 mM),Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.7 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.350 mL	11.7498 mL	23.4996 mL
5 mM	0.470 mL	2.350 mL	4.6999 mL
10 mM	0.235 mL	1.175 mL	2.350 mL
50 mM	0.047 mL	0.235 mL	0.470 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

Wallace BD, et al. Alleviating cancer drug toxicity by inhibiting a bacterial enzyme.Science. 2010 Nov 5;330(6005): 831-5.