Product Data Sheet

Product Name: NS2B/NS3-IN-3 dihydrochloride
Cat. No.: GC78930

Chemical Properties

Cas. No.			
Formula	$C_{19}H_{23}Cl_2N_3O_2$	M.Wt	396.31
Solubility	H_2O: 10 mg/mL (25.23 mM; Need ultrasonic)	Storage	Store at -20°C, away from moisture
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Caution: Product has not been fully validated for medical applications. For research use only.
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Structure

Background

NS2B/NS3-IN-3 dihydrochloride is an inhibitor of Flavivirus NS2B-NS3 protease, with an IC_{50} of 0.32 μM against Zika virus NS2B-NS3 protease. NS2B/NS3-IN-3 dihydrochloride also exhibits inhibitory effects on dengue virus type 2 NS2B-NS3 protease and West Nile virus NS2B-NS3 protease. NS2B/NS3-IN-3 dihydrochloride inhibits the intracellular replication of Zika virus. NS2B/NS3-IN-3 dihydrochloride can be used in studies related to flavivirus infections [1].

In Vitro, NS2B/NS3-IN-3 (compound 66) dihydrochloride potently inhibits recombinant Zika virus NS2B-NS3 protease with an IC_{50} of 0.32 μM; it also inhibits recombinant dengue virus type 2 NS2B-NS3 protease with an IC_{50} of approximately 1-2 μM, and exhibits a non-competitive inhibition mode[1]. NS2B/NS3-IN-3 (1-10 μM; 48 h) dihydrochloride exhibits dose-dependent antiviral activity

against Zika virus (strain FLR) in human U87 glioma cells, with an EC68 of 1 μM, and shows no toxicity to U87 cells at a concentration of 10 μM[1].

References:

[1]. Nie S, et al. Synthesis, structure-activity relationship and antiviral activity of indole-containing inhibitors of Flavivirus NS2B-NS3 protease. European journal of medicinal chemistry. 2021 Dec 05;225:113767.