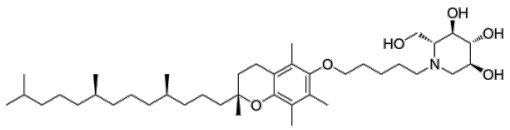
Product Data Sheet

Product Name: ToP-DNJ
Cat. No.: GC81592

Chemical Properties

Cas. No.	1508303-85-2		
Formula	$C_{40}H_{71}NO_6$	M.Wt	661.99
Solubility		Storage	Store at -20°C
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.		
Structure			



Background

ToP-DNJ is a selective endoplasmic reticulum α-glucosidase II (GluII) inhibitor with an IC_{50} value of 9.0 μM. ToP-DNJ selectively inhibits the two catalytic reactions of GluII, and exhibits stronger activity in the first step of converting di-glycosylated glycans to mono-glycosylated glycans. ToP-DNJ exhibits anti- DENV activity. ToP-DNJ can be used in studies related to dengue virus infection [1].

In Vivo, ToP-DNJ (2-10 mg/kg; i.v., p.o.; single dose) preferentially accumulates in the liver of BALB/c mice after both intravenous and oral single-dose administration, with an extended plasma terminal half-life of 8.79 h[1].

Caution: Product has not been fully validated for medical applications. For research use only.
Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

In Vitro, ToP-DNJ is a selective inhibitor of isolated endoplasmic reticulum α-glucosidase II, with an IC_{50} of 9.0 μM, and does not inhibit other tested α- or β-glucosidases at concentrations up to 50 μM[1]. ToP-DNJ inhibits both catalytic reactions of isolated endoplasmic reticulum α-glucosidase II, with higher inhibitory potency against the first reaction (IC_{50} = 14 μM) than against the second one (IC_{50} = 56 μM)[1]. ToP-DNJ exhibits anti-dengue virus activity in primary human monocyte-derived macrophages with an IC_{50} of 12.7 μM[1].

References:

[1]. Kiappes JL, et al. ToP-DNJ, a Selective Inhibitor of Endoplasmic Reticulum α-Glucosidase II Exhibiting Antiflaviviral Activity. ACS Chem Biol. 2018;13(1):60-65.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA