

Product Datasheet

Genz-123346

Catalog No. **BP-02508** · CAS **491833-30-8** · Form **free base** · Physical state **solid** · Color **White to off-white** · Version **1.0** · Revision **2026-09-10**

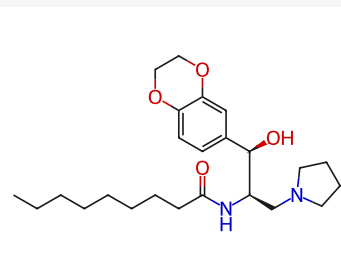
FOR RESEARCH USE ONLY. NOT FOR HUMAN OR VETERINARY USE.

Target Glucosylceramide Synthase (GCS)	Research area Metabolic Disease; Cancer
--	---

Molecular formula **C₂₄H₃₈N₂O₄**

Molecular weight **418.5695**

STRUCTURE



DESCRIPTION

Genz-123346 free base is an orally available inhibitor of glucosylceramide synthase. Genz-123346 blocks the conversion of ceramide to glucosylceramide (GL1) and inhibits GM1 with an IC₅₀ of 14 nM .

BIOLOGICAL ACTIVITY

Blockade of GlcCer accumulation with the GlcCer synthase inhibitor Genz-123346 effectively inhibits cystogenesis in mouse models orthologous to human autosomal dominant PKD (Pkd1 conditional knockout mice) and nephronophthisis (jck and pcy mice). Molecular analysis in vitro and in vivo indicates that Genz-123346 acts through inhibition of the two key pathways dysregulated in PKD: Akt protein kinase-mammalian target of rapamycin signaling and cell cycle machinery. In the Zucker diabetic fatty rat, Genz-123346 lowered glucose and A1C levels and improved glucose tolerance. Genz-123346 also prevented the loss of pancreatic beta-cell function normally observed in the Zucker diabetic fatty rat and preserved the ability of the animals to secrete insulin. In the diet-induced obese mouse, Genz-123346 normalized A1C levels and improved glucose tolerance.

SOLUBILITY

Soluble in DMSO

REFERENCES

- [1]. Zhao H, et al. Inhibiting glycosphingolipid synthesis improves glycemic control and insulin sensitivity in animal models of type 2 diabetes. Diabetes. 2007 May;56(5):1210-8.
- [2]. Chai L, et al. The chemosensitizing activity of inhibitors of glucosylceramide synthase is mediated primarily through modulation of P-gp function. Int J Oncol. 2011 Mar;38(3):701-11.
- [3]. Shen W, et al. Inhibition of glucosylceramide synthase stimulates autophagy flux in neurons. J Neurochem. 2014 Jun;129(5):884-94

[4]. Natoli TA, et al. Inhibition of glucosylceramide accumulation results in effective blockade of polycystic kidney disease in mouse models. Nat Med. 2010 Jul;16(7):788-92.

Tel: +86 20 31130026 · Fax: +86 20 36822386 · tech@biochemprobe.com · www.biochemprobe.com

BiochemProbe is the catalog brand of Guangzhou Yuyuan Biotech Co., Ltd. · For research use only.

Lot CoA and SDS are separate documents.