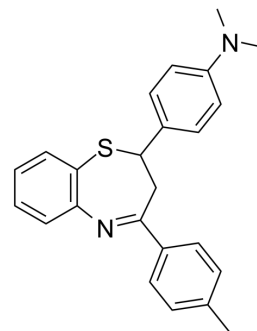


α-Glucosidase-IN-15

Cat. No.:	HY-151135
CAS No.:	2820424-85-7
Molecular Formula:	C ₂₄ H ₂₄ N ₂ S
Molecular Weight:	372.53
Target:	Glucosidase
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	α-Glucosidase-IN-15 (Compound 14B) is a potent, orally active α-glucosidase inhibitor with an IC ₅₀ of 3.34 μM. α-Glucosidase-IN-15 shows antidiabetic activity ^[1] .								
IC₅₀ & Target	IC ₅₀ : 3.34 μM (α-glucosidase) ^[1]								
In Vivo	<p>α-Glucosidase-IN-15 (Compound 14B) (10 and 20 mg/kg; p.o.; b.w. for 4 weeks) shows antidiabetic activity in Streptozocin (HY-13753)-induced diabetic rats^[1].</p> <p>α-Glucosidase-IN-15 (10 and 20 mg/kg; p.o.; once) significantly decreases the serum glucose level after the administration of glucose (3 g/kg, oral) in rats^[1].</p> <p>α-Glucosidase-IN-15 (2000mg/kg; p.o.; b.w. for 2 weeks) demonstrates no mortality in mice^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Male Wistar albino rats (170–200 g), Streptozotocin-induced diabetes model^[1]</td> </tr> <tr> <td>Dosage:</td> <td>10 and 20 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Oral administration, b.w. for 4 weeks</td> </tr> <tr> <td>Result:</td> <td>Decreased the level of blood glucose, reversed Streptozocin-induced body weight loss. Showed antihyperlipidemic effects on Streptozotocin-induced diabetes, reduced to a significant level of serum biomarkers.</td> </tr> </table>	Animal Model:	Male Wistar albino rats (170–200 g), Streptozotocin-induced diabetes model ^[1]	Dosage:	10 and 20 mg/kg	Administration:	Oral administration, b.w. for 4 weeks	Result:	Decreased the level of blood glucose, reversed Streptozocin-induced body weight loss. Showed antihyperlipidemic effects on Streptozotocin-induced diabetes, reduced to a significant level of serum biomarkers.
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REFERENCES

[1]. Mehmood R, et al. Synthesis of Novel 2, 3-Dihydro-1, 5-Benzothiazepines as α-Glucosidase Inhibitors: In Vitro, In Vivo, Kinetic, SAR, Molecular Docking, and QSAR Studies. ACS Omega, 2022.

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

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