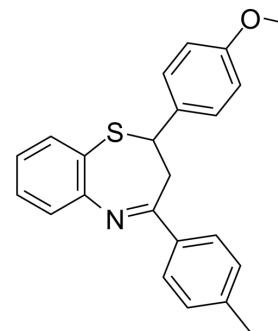


α -Glucosidase-IN-20

Cat. No.:	HY-151144
CAS No.:	420809-56-9
Molecular Formula:	C ₂₃ H ₂₁ NOS
Molecular Weight:	359.48
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-20 (Compound 3B) is a potent, orally active α -glucosidase inhibitor with an IC ₅₀ of 3.01 μ M. α -Glucosidase-IN-20 shows anti-diabetic activity ^[1] .								
In Vivo	<p>α-Glucosidase-IN-20 (Compound 3B; 10 and 20 mg/kg; p.o.; daily, for 4 weeks) has anti-diabetic activity in Streptozocin (HY-13753)-induced diabetic rats^[1].</p> <p>α-Glucosidase-IN-20 (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-20 (2000 mg/kg; p.o.; daily, 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; daily, 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; daily, 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 Aug 17.

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

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