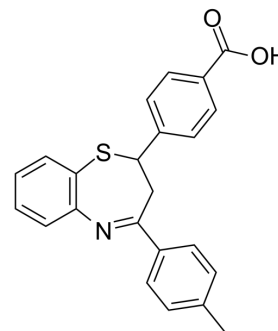


## $\alpha$ -Glucosidase-IN-18

<b>Cat. No.:</b>	HY-151142
<b>CAS No.:</b>	2820424-81-3
<b>Molecular Formula:</b>	C <sub>23</sub> H <sub>19</sub> NO <sub>2</sub> S
<b>Molecular Weight:</b>	373.47
<b>Target:</b>	Glucosidase
<b>Pathway:</b>	Metabolic Enzyme/Protease
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	$\alpha$ -Glucosidase-IN-18 (7B) is an orally active $\alpha$ -glucosidase inhibitor with an IC <sub>50</sub> value of 3.96 $\mu$ M. $\alpha$ -Glucosidase-IN-18 has antidiabetic activity <sup>[1]</sup> .
<b>In Vivo</b>	<p><math>\alpha</math>-Glucosidase-IN-18 (7B) (p.o., 10 or 20 mg/kg) has antidiabetic activity and significantly reduces blood glucose levels, from 392.16 mg/dL of diabetic control to 112.97 mg/dL at a concentration of 20 mg/kg after 28 days, while effectively slowing weight loss due to diabetes in male Wistar albino rats with streptozotocin-induced diabetes<sup>[1]</sup>.</p> <p><math>\alpha</math>-Glucosidase-IN-18 (7B) (p.o., 10 or 20 mg/kg) had an anti-hyperlipidemic effect with total CH levels from 226.03 mg/dL in the diabetic control to 136.4 mg/dL, LDL levels from 183.3 mg/dL to 114.18 mg/dL and TG levels from 189.35 mg/dL to 118.61 mg/dL in male Wistar albino rats with streptozotocin-induced diabetes<sup>[1]</sup>.</p> <p><math>\alpha</math>-Glucosidase-IN-18 (7B) decreases ALP levels from 3.01 mg/dL to 0.85 mg/dL and 0.79 mg/dL, SGPT levels from 59.43 mg/dL to 27.07 mg/dL and 23.91 mg/dL, SGOT levels from 49.67 mg/dL to 26.71 mg/dL and 23.08 mg/dL, serum creatinine from 3.01 mg/dL to 0.85 mg/dL and 0.79 mg/dL, and insulin levels from 0.369 mg/dL to 0.621 mg/dL and 0.639 mg/dL, respectively at doses of 10 and 20 mg/kg in male Wistar albino rats with streptozotocin-induced diabetes<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

### REFERENCES

[1]. Rabia Mehmood, et al. Synthesis of Novel 2,3-Dihydro-1,5-Benzothiazepines as  $\alpha$ -Glucosidase Inhibitors: In Vitro, In Vivo, Kinetic, SAR, Molecular Docking, and QSAR Studies. ACS Omega 2022, August 17, 2022.

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

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