

## RG7697

<b>Cat. No.:</b>	HY-P10271
<b>Molecular Formula:</b>	C <sub>211</sub> H <sub>316</sub> N <sub>46</sub> O <sub>61</sub>
<b>Molecular Weight:</b>	4473.04
<b>Sequence:</b>	Tyr-{Aib}-Glu-Gly-Thr-Phe-Thr-Ser-Asp-Tyr-Ser-Ile-Tyr-Leu-Asp-Lys-Gln-Ala-Ala-{Aib}-Glu-Phe-Val-Asn-Trp-Leu-Leu-Ala-Gly-Gly-Pro-Ser-Ser-Gly-Ala-Pro-Pro-Pro-Ser-{Lys(C16 acid)}-NH <sub>2</sub>
<b>Sequence Shortening:</b>	Y-{Aib}-EGTFTSDYSIYLDKQAA-{Aib}-EFVNWLLAGGPSSGAPPPS-{Lys(C16 acid)}-NH <sub>2</sub>
<b>Target:</b>	GLP Receptor
<b>Pathway:</b>	GPCR/G Protein
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.

### BIOLOGICAL ACTIVITY

<b>Description</b>	RG7697 is a dual agonist for glucagon-like peptide receptor (GLP Receptor) and glucosedependent insulinotropic polypeptide receptor (GIPR), with EC <sub>50</sub> of 5 and 3 pM, respectively. RG7697 exhibits antihyperglycemic property <sup>[1]</sup> .								
<b>IC<sub>50</sub> &amp; Target</b>	EC <sub>50</sub> : 3 pM (GIPR), 5 pM (GLP Receptor)								
<b>In Vivo</b>	<p>RG7697 (3-30 nmol/kg, s.c., daily for 7 days; or once every two weeks for 30 days) increases insulin secretion and metabolism, decreases glucose excursion, and ameliorates diet induced type 2 diabetes and obesity in C57BL/6 mice model [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>Diet induced type 2 diabete and obesity in C57BL/6 mice<sup>[1]</sup></td> </tr> <tr> <td>Dosage:</td> <td>3-30 nmol/kg</td> </tr> <tr> <td>Administration:</td> <td>s.c., daily for 7 days or once every week for 30 days</td> </tr> <tr> <td>Result:</td> <td>Reduced body weight, blood glucose and food intake. Decreased intraperitoneal glucose tolerance, plasma insulin and cholesterol.</td> </tr> </table>	Animal Model:	Diet induced type 2 diabete and obesity in C57BL/6 mice <sup>[1]</sup>	Dosage:	3-30 nmol/kg	Administration:	s.c., daily for 7 days or once every week for 30 days	Result:	Reduced body weight, blood glucose and food intake. Decreased intraperitoneal glucose tolerance, plasma insulin and cholesterol.
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### REFERENCES

[1]. Schmitt C, et al., Pharmacodynamics, pharmacokinetics and safety of multiple ascending doses of the novel dual glucose-dependent insulinotropic polypeptide/glucagon-like peptide-1 agonist RG7697 in people with type 2 diabetes mellitus. *Diabetes Obes Metab.* 2017 Oct;19(10):1436-1445.

[2]. Finan B, et al., Unimolecular dual incretins maximize metabolic benefits in rodents, monkeys, and humans. *Sci Transl Med.* 2013 Oct 30;5(209):209ra151.

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

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