AdipoGen® LIFE SCIENCES

Standard & Innovative Biochemicals From the Manufacturer

GLP-1R, GIPR & GCGR Agonists

Peptide-based Tools for Obesity & Diabetes Research

The blazing success of weight loss drugs like Wegovy and Mounjaro has electrified obesity research and especially the pursuit of new treatments for obesity. Dozens of companies are jumping into the race to market medications that are oral, longer-lasting, avoid side effects or provide additional benefits besides weight loss. Many of these drugs are targeting glucagon-like peptide-1 receptor (GLP-1R), glucose-dependent insulinotropic polypeptide (GIPR) and glucagon receptor (GCGR), as well as other hormones involved in satiety and metabolism; some are using entirely novel mechanisms.

Available from Stock in BULK

PRODUCT NAME	PID	SIZE	DESCRIPTION
Liraglutide CAS: 204656-20-2	AG-CP3-0034	1 mg | 5 mg | 25 mg | 100 mg	Long-acting acylated GLP-1 receptor agonist.
Retatrutide . Na CAS: 2381089-83-2 (free acid)	AG-CP3-0044	1 mg | 5 mg | 25 mg | 100 mg	Novel triple agonist peptide of the GCG receptor, GIP receptor and GLP-1 receptor.
Semaglutide CAS: 910463-68-2	AG-CP3-0040	1 mg | 5 mg | 25 mg | 100 mg	Longer-acting alternative GLP-1 receptor agonist to Liraglutide.
Semaglutide . acetate CAS: 1997361-85-9	AG-CP3-0032	1 mg | 5 mg | 25 mg | 100 mg	Semaglutide salt form.
Tirzepatide CAS: 2023788-19-2	AG-CP3-0043	5 mg | 25 mg | 100 mg	Novel dual GIP and GLP-1 receptor agonist.

Available on Request NEW

PRODUCT NAME	PID	SIZE	DESCRIPTION
Mazdutide [LY-3305677] CAS: 2259884-03-0	AG-CP3-0045	1 mg | 5 mg | 25 mg	Novel long-acting dual GLP-1 and GCG receptor agonist.
Survodutide [BI 456906] CAS: 2805997-46-8	AG-CP3-0046	1 mg | 5 mg | 25 mg	Novel long-acting dual GLP-1 and GCG receptor agonist.

High Quality Biochemicals from Stock

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Targeting GLP-1, GIP & GCG in Obesity and Diabetes Research

Incretins are gut-derived hormones, members of the glucagon superfamily. There are two main incretin hormones in humans: **GIP** (glucose-dependent insulinotropic peptide; also known as gastric inhibitory peptide) and **GLP-1** (glucagon-like peptide-1). Both hormones are secreted by endocrine cells of the small intestine and are secreted on ingestion of glucose or nutrients to stimulate insulin secretion from pancreatic β cells. GIP and GLP-1 exert their effects by binding to their specific receptors, the GIP receptor (GIPR) and the GLP-1 receptor (GLP-1R), which belong to the G-protein coupled receptor family. Receptor binding mainly activates and increases the level of intracellular cyclic adenosine monophosphate in pancreatic β cells, thereby stimulating insulin secretion glucose-dependently **(see Figure)**. In addition to their insulinotropic effects, GLP-1 and GIP also have other metabolic effects, such as reducing glucagon secretion from the pancreas, slowing down gastric emptying and promoting satiety. **GCG (Glucagon)**, a hormone secreted from pancreatic α cells, acts in opposition to insulin by promoting gluconeogenesis and glycogenolysis and plays an essential role as regulator of glucose and lipid metabolism. GCGR plays a crucial role in managing blood sugar levels and energy balance.

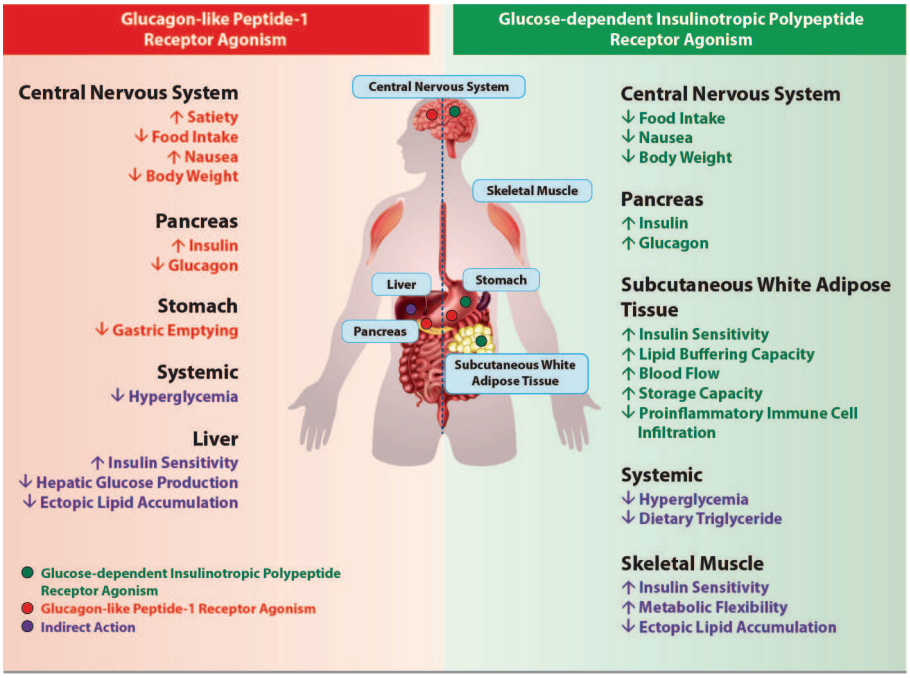

FIGURE: GLP-1R and GIPR Agonists Effects.

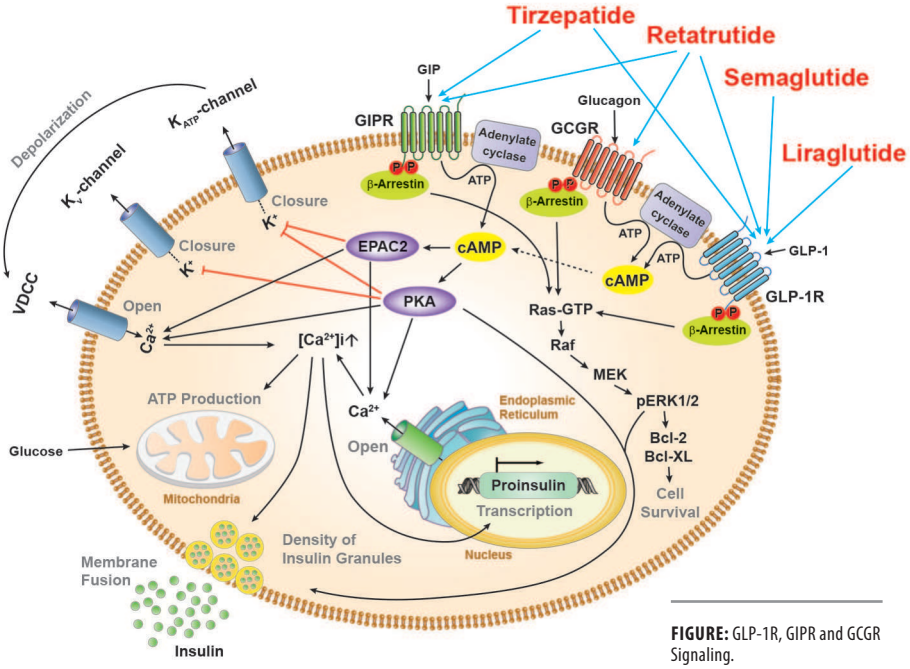

FIGURE: GLP-1R, GIPR and GCGR Signaling.

SELECTED REVIEWS: GLP-1 Receptor Agonists: Beyond Their Pancreatic Effects: X. Zhao, et al.; Front. Endocrinol. **12,** 721135 (2021) • GLP-1 and GIP receptor signaling in beta cells – A review of receptor interactions and co-stimulation: A. Mayendraray, et al.; Peptides **151,** 170749 (2022) • Tirzepatide, a dual GIP/GLP-1 receptor co-agonist for the treatment of type 2 diabetes with unmatched effectiveness regarding glycaemic control and body weight reduction: M.A. Nauck & D.A. D'Alessio; Cardiovasc. Diabetol. **21,** 169 (2022)