celia
Research Protocols

Weight and Metabolism

Orforglipron 24mg

About

Orforglipron Capsules are being studied for their potential to support metabolic health, appetite regulation, and weight management. Orforglipron is an oral, non-peptide GLP-1 receptor agonist being explored in research for its role in supporting glucose regulation, appetite control, and overall metabolic function.

What's Included

- One bottle contains 30 capsules
- Each capsule is 24mg

Clinical Research Potential Benefits:

- May support weight loss and appetite control
- May support healthy blood sugar regulation
- May improve metabolic function and energy balance
- May support insulin sensitivity and glucose metabolism

Clinical Research Suggested Use:

- Take 1 capsule every other day in the AM
- Can be taken with or without food
- Duration: 3 months

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Orforglipron Mechanism of Action

- **GLP-1 Receptor Agonism:**
  - Orforglipron is a non-peptide, small molecule agonist of the glucagon-like peptide-1 (GLP-1) receptor, a G protein–coupled receptor (GPCR) expressed in pancreatic, gastrointestinal, and central nervous system tissues.
- **cAMP Signaling Pathway Activation:**
  - Binding to the GLP-1 receptor activates adenylate cyclase, increasing intracellular cyclic AMP (cAMP) levels. This enhances protein kinase A (PKA) and Epac signaling pathways, which mediate downstream metabolic effects.
- **Glucose-Dependent Insulin Secretion:**
  - Augments insulin secretion from pancreatic beta cells in a glucose-dependent manner, reducing the risk of hypoglycemia while improving postprandial glycemic control.
- **Glucagon Suppression:**
  - Decreases glucagon secretion from pancreatic alpha cells during hyperglycemic states, contributing to reduced hepatic glucose output.
- **Gastric Motility Modulation:**
  - Delays gastric emptying through vagal-mediated mechanisms, resulting in slower nutrient absorption and attenuated postprandial glucose excursions.
- **Central Appetite Regulation:**
  - Activates GLP-1 receptors in the hypothalamus and brainstem (including the arcuate nucleus and area postrema), modulating neuropeptides involved in appetite regulation such as POMC and NPY/AgRP pathways.
- **Energy Homeostasis:**
  - Influences energy balance through combined peripheral and central effects, including reduced caloric intake and potential modulation of energy expenditure.
- **Insulin Sensitivity and Metabolic Effects:**
  - Being studied for its role in improving peripheral insulin sensitivity and reducing metabolic dysfunction through integrated endocrine and neurohormonal signaling pathways.