Brand Name: Segluromet
Generic: ertugliflozin and metformin hydrochloride
Type: small molecule
Year Accepted/Phase: 2017

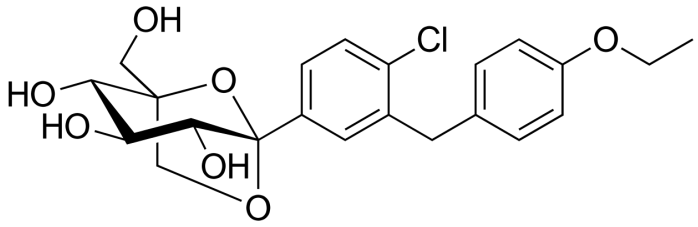
Mechanism:

Ertugliflozin: Inhibits SGLT2 in the proximal renal tubules, reducing glucose reabsorption and increasing glucose excretion in urine.

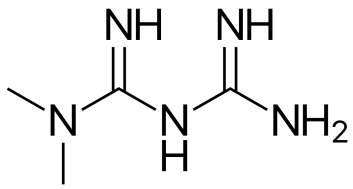
Metformin Hydrochloride: Decreases hepatic glucose production, intestinal glucose absorption, and improves insulin sensitivity by increasing peripheral glucose uptake.

Chemical Structure:

Ertugliflozin



Metformin



Indication:

Segluromet is indicated as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus when treatment with both ertugliflozin and metformin is appropriate.

Clinical trials:

VERTIS MET Trial (Phase III)

Pubmed: https://pubmed.ncbi.nlm.nih.gov/30614616/

Purpose: Evaluate the efficacy and safety of ertugliflozin as an add-on to metformin in patients with type 2 diabetes mellitus inadequately controlled on metformin alone.
Dates: Conducted from 2013 to 2016.
Results: The trial showed that the addition of ertugliflozin to metformin significantly reduced HbA1c levels compared to placebo. Ertugliflozin also led to reductions in fasting plasma glucose (FPG) and body weight. The combination was generally well-tolerated, with a safety profile consistent with the known effects of each individual component.
Impact: The positive results supported the approval of Segluromet as an effective treatment for improving glycemic control in adults with type 2 diabetes.

VERTIS FACTORIAL Trial (Phase III)

Pubmed: https://pubmed.ncbi.nlm.nih.gov/29266675/

Purpose: Evaluate the efficacy and safety of ertugliflozin in combination with metformin in patients with type 2 diabetes.
Dates: Conducted from 2014 to 2017.
Results: The combination of ertugliflozin and metformin demonstrated significant reductions in HbA1c compared to either component alone. Improvements in fasting plasma glucose and body weight were also observed. The combination was well-tolerated, with a safety profile consistent with the individual components.
Impact: This trial further supported the use of Segluromet in improving glycemic control in adults with type 2 diabetes mellitus.