Open Peer Review on Qeios

Sotagliflozin

National Cancer Institute

Source

National Cancer Institute. Sotagliflozin. NCI Thesaurus. Code C119623.

An orally bioavailable inhibitor of the sodium-glucose co-transporter subtype 1 (SGLT 1) and 2 (SGLT 2), with potential antihyperglycemic activity. Upon oral administration, sotagliflozin binds to and blocks both SGLT 1 in the gastrointestinal (GI) tract and SGLT 2 in the kidneys, thereby suppressing the absorption of glucose from the GI tract and the reabsorption of glucose by the proximal tubule into the bloodstream, respectively. This decreases glucose uptake and enhances the urinary excretion of glucose, which lowers and/or normalizes blood glucose levels. SGLT 1 is the primary transporter responsible for glucose absorption from the GI tract. SGLT 2, a transport protein exclusively expressed in the proximal renal tubules, mediates approximately 90% of renal glucose reabsorption from tubular fluid.