Open Peer Review on Qeios

Empagliflozin

National Cancer Institute

Source

National Cancer Institute. Empagliflozin. NCI Thesaurus. Code C158136.

An orally available competitive inhibitor of sodium-glucose co-transporter 2 (SGLT2; SLC5A2) with antihyperglycemic activity. Upon oral administration, empagliflozin selectively and potently inhibits SGLT2 in the kidneys, thereby suppressing the reabsorption of glucose in the proximal tubule. Inhibition of SGLT2 increases urinary glucose excretion by the kidneys, resulting in a reduction of plasma glucose levels in an insulin-independent manner. SGLT2, a transport protein exclusively expressed in the proximal renal tubules, mediates approximately 90% of renal glucose reabsorption from tubular fluid.