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Glibornuride

National Cancer Institute

Source

National Cancer Institute. *Glibornuride*. NCI Thesaurus. Code C123430.

An orally bioavailable sulfonamide urea derivative with antihyperglycemic activity. Upon administration, glibornuride binds to and blocks the sulfonylurea receptor type 1 (SUR1) subunit of the ATP-sensitive inwardly-rectifying potassium (K(ATP)) channels on the membranes of pancreatic beta cells. This prevents the inward flow of positively charged potassium (K⁺) ions into the cell, and induces a calcium ion (Ca²⁺) influx through voltage-sensitive calcium channels, which triggers exocytosis of insulin-containing granules. Insulin stimulates glycogen synthesis and inhibits gluconeogenesis, which together lower blood glucose levels.