Product Data Sheet

Product Name: Tolbutamide
CAS No.: 64-77-7
Cat. No.: HY-B0401
MWT: 270.35
Formula: C\textsubscript{12}H\textsubscript{18}N\textsubscript{2}O\textsubscript{3}S
Purity: >98%

Solubility: DMSO: \geq 34 \text{ mg/mL}

Mechanisms:
Pathways: Membrane Tranporter/Ion Channel; Target: Potassium Channel

Biological Activity:
Tolbutamide is a first generation potassium channel blocker, sulfonylurea oral hypoglycemic drug.
Target: Potassium Channel
Tolbutamide is an oral antihyperglycemic agent used for the treatment of non-insulin-dependent diabetes mellitus (NIDDM). Tolbutamide act by stimulating \(\beta\) cells of the pancreas to release insulin. Sulfonylureas increase both basal insulin secretion and meal-stimulated insulin release. Tolbutamide belongs to a class of medications called sulfonylureas. Tolbutamide inhibits both the basal and the cyclic AMP-stimulated protein kinase activities and the IC\textsubscript{50} of Tolbutamide is 4 mM. Similar Tolbutamide concentrations are required for half maximal inhibition of in vitro lipolysis induced by hormones (norepinephrine and ACTH) or by dibutyryl cyclic AMP plus theophylline. Tolbutamide also inhibits both soluble and membrane-bound protein kinase from canine...

References:

Caution: Not fully tested. For research purposes only
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