## Product data sheet

| MedKoo Cat\#: 317974 |  |
| :--- | :--- |
| Name: Glisoxepide |  |
| CAS: 25046-79-1 |  |
| Chemical Formula: $\mathrm{C}_{20} \mathrm{H}_{27} \mathrm{~N}_{5} \mathrm{O}_{5} \mathrm{~S}$ |  |
| Exact Mass: 449.17329 |  |
| Molecular Weight: 449.2388 |  |
| Product supplied as: | Powder |
| Purity (by HPLC): | $\geq 98 \%$ |
| Shipping conditions | Ambient temperature |
| Storage conditions: | Powder: $-20^{\circ} \mathrm{C} 3$ years; $4^{\circ} \mathrm{C} 2$ years. |
|  | In solvent: $-80^{\circ} \mathrm{C} 3$ months; $-20^{\circ} \mathrm{C} 2$ weeks. |



## 1. Product description:

Glisoxepide is a second-generation sulfonylurea with antihyperglycemic activity. Like other second-generation compounds, glisoxepide exerts greater binding affinity than the first-generation compounds. Glisoxepide shows peroxisome proliferator-activated receptor gamma agonistic activity, has a short half-life and is excreted in both the bile and urine.

## 2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is $100 \%$ guaranteed.

## 3. Solubility data

| Solvent | Max Conc. $\mathrm{mg} / \mathrm{mL}$ | Max Conc. mM |
| :--- | :--- | :--- |
| TBD | TBD | TBD |

## 4. Stock solution preparation table:

| Concentration / Solvent Volume / Mass | $\mathbf{1 ~ m g}$ | $\mathbf{5} \mathbf{~ m g}$ | $\mathbf{1 0} \mathbf{~ m g}$ |
| :--- | :--- | :--- | :--- |
| 1 mM | 2.23 mL | 11.13 mL | 22.26 mL |
| 5 mM | 0.45 mL | 2.23 mL | 4.45 mL |
| 10 mM | 0.22 mL | 1.11 mL | 2.23 mL |
| 50 mM | 0.04 mL | 0.22 mL | 0.45 mL |

## 5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of "Calculator"

## 6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Sato T, Costa AD, Saito T, Ogura T, Ishida H, Garlid KD, Nakaya H. Bepridil, an antiarrhythmic drug, opens mitochondrial KATP channels, blocks sarcolemmal KATP channels, and confers cardioprotection. J Pharmacol Exp Ther. 2006 Jan;316(1):182-8. doi: 10.1124/jpet.105.094029. Epub 2005 Sep 20. PMID: 16174795.
2. Fückel D, Petzinger E. Interaction of sulfonylureas with the transport of bile acids into hepatocytes. Eur J Pharmacol. 1992 Mar 31;213(3):393-404. doi: 10.1016/0014-2999(92)90628-h. PMID: 1618280.

In vivo study
TBD

## 7. Bioactivity

Biological target:
Glisoxepide, a sulphonamide derivative, is an orally available nonselective K(ATP) channel blocker, with antihyperglycemic activity and cardiovascular regulation effect.

In vitro activity

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Bepridil ( 10 microM) completely inhibited the pinacidil-induced Kir6.2+SUR2A channel current expressed in HEK 293 cells. Bepridil reversibly oxidized the flavoprotein and increased mitochondrial matrix volume in a concentration-dependent manner. Furthermore, bepridil significantly attenuated the ouabain-induced increase of $[\mathrm{Ca}(2+)](\mathrm{m})$. Pretreatment with bepridil for 5 min before ischemia improved the recovery of developed tension measured after 60 min of reperfusion. These effects of bepridil were abolished by the mitoK(ATP) channel blocker 5-hydroxydecanoate ( 500 microM ) and by the nonselective K(ATP) channel blocker glisoxepide (10 microM).

Reference: J Pharmacol Exp Ther. 2006 Jan;316(1):182-8. https://pubmed.ncbi.nlm.nih.gov/16174795/
In vivo activity
TBD
Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.

