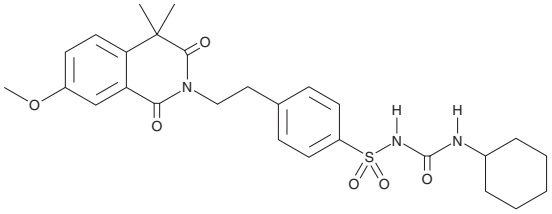
PRODUCT INFORMATION

Gliquidone

Item No. 29596

CAS Registry No.:	33342-05-1
Formal Name:	N-[(cyclohexylamino)carbonyl]-4-[2-(3,4-dihydro-7-methoxy-4,4-dimethyl-1,3-dioxo-2(1H)-isoquinolinyl)ethyl]-benzenesulfonamide
Synonym:	AR-DF 26
MF:	$C_{27}H_{33}N_3O_6S$
FW:	527.6
Purity:	≥98%
UV/Vis.:	λ_{max}: 224 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Gliquidone is supplied as a crystalline solid. A stock solution may be made by dissolving the gliquidone in the solvent of choice, which should be purged with an inert gas. Gliquidone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of gliquidone in ethanol is approximately 1 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Gliquidone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, gliquidone should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Gliquidone has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Gliquidone is a second generation sulfonylurea that selectively inhibits ATP-sensitive potassium channel currents (IK_{ATP}) in pancreatic β-cells (IC_{50}s = 0.45, 119.1, and 149.7 µM for HIT-T15 cells, cardiomyocytes, and vascular smooth muscle cells, respectively).[1] It is also a peroxisome proliferator-activated receptor γ (PPARγ) agonist (EC_{50} = 10 µM in a transactivation assay).[2] Gliquidone (0.2 nmol/g) decreases plasma levels of D-glucose and stimulates insulin release in anesthetized rats.[3] It decreases blood glucose levels, serum alkaline phosphatase (ALP), aspartate aminotransferase (AST), and alanine aminotransferase (ALT) activities, and hepatic lipid peroxidation and increases hepatic glutathione (GSH) levels in a rat model of diabetes induced by streptozotocin (STZ; Item No. 13104) when administered at a dose of 10 mg/kg.[4]

References

1. Liu, S.-Y., Tian, H.M., Liao, D.Q., *et al. Diabetes Res. Clin. Pract.* **109(2)**, 334-339 (2015).
2. Scarsi, M., Podvinec, M., Roth, A., *et al. Mol. Pharmacol.* **71(2)**, 398-406 (2015).
3. García-Martínez, J.A., Villanueva-Peñacarrillo, M.L., Valverde, I., *et al. Pharmacol. Res.* **36(5)**, 369-372 (1997).
4. Yanardag, R., Ozsoy-Sacan, O., Orak, H., *et al. Drug Chem. Toxicol.* **28(4)**, 483-497 (2005).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM