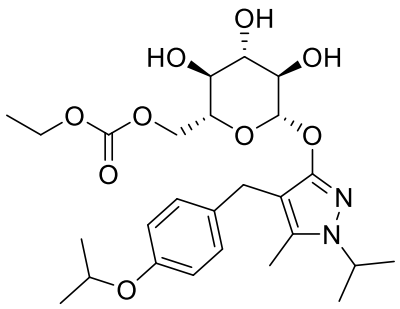
Product data sheet

MedKoo Cat#: 319897 Name: Remogliflozin etabonate CAS#: 442201-24-3 Chemical Formula: $C_{26}H_{38}N_2O_9$ Exact Mass: 522.2577 Molecular Weight: 522.60	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:

Remogliflozin etabonate, also known as GSK 189075A or GSK 189075, is a SGLT2 inhibitor under development for the treatment of type 2 diabetes. Remogliflozin etabonate is a pro-drug of remogliflozin. Remogliflozin inhibits the sodium-glucose transport proteins (SGLT), which are responsible for glucose reabsorption in the kidney. Blocking this transporter causes blood glucose to be eliminated through the urine. Remogliflozin is selective for SGLT2.

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. mg/mL	Max Conc. mM
DMSO	2	3.83

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.91 mL	9.57 mL	19.14 mL
5 mM	0.38 mL	1.91 mL	3.83 mL
10 mM	0.19 mL	0.96 mL	1.91 mL
50 mM	0.04 mL	0.19 mL	0.38 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

To be determined

In vivo study

1. Nakano S, Katsuno K, Isaji M, Nagasawa T, Buehrer B, Walker S, Wilkison WO, Cheatham B. Remogliflozin Etabonate Improves Fatty Liver Disease in Diet-Induced Obese Male Mice. J Clin Exp Hepatol. 2015 Sep;5(3):190-8. doi: 10.1016/j.jceh.2015.02.005. Epub 2015 Apr 28. PMID: 26628836; PMCID: PMC4632078.
2. Fujimori Y, Katsuno K, Nakashima I, Ishikawa-Takemura Y, Fujikura H, Isaji M. Remogliflozin etabonate, in a novel category of selective low-affinity sodium glucose cotransporter (SGLT2) inhibitors, exhibits antidiabetic efficacy in rodent models. J Pharmacol Exp Ther. 2008 Oct;327(1):268-76. doi: 10.1124/jpet.108.140210. Epub 2008 Jun 26. PMID: 18583547.

7. Bioactivity

Biological target:

Remogliflozin etabonate is a prodrug form of the sodium-glucose transporter 2 (SGLT2) inhibitor remogliflozin A. Remogliflozin etabonate inhibits human SGLT2 and SGLT1 (Kis = 1.95 and 43.1 μM, respectively). It inhibits increases in plasma glucose levels in a glucose tolerance test in a rat model of diabetes induced by streptozotocin. Remogliflozin etabonate (10 and 30 mg/kg twice per day

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for 6 weeks) also increases fasting plasma insulin levels and reduces fasting plasma glucose and triglyceride levels, as well as urinary glucose excretion, in a db/db mouse model of diabetes with hyperinsulinemia and obesity.

In vitro activity

To be determined

In vivo activity

In high-fat diet-fed Goto-Kakizaki rats, remogliflozin etabonate improved hyperglycemia, hyperinsulinemia, hypertriglyceridemia, and insulin resistance. Remogliflozin etabonate treatment exhibits antidiabetic efficacy in several rodent models. These findings suggest that remogliflozin etabonate may be a new and useful drug for the treatment of diabetes.

Reference: J Pharmacol Exp Ther. 2008 Oct;327(1):268-76. https://pubmed.ncbi.nlm.nih.gov/18583547/