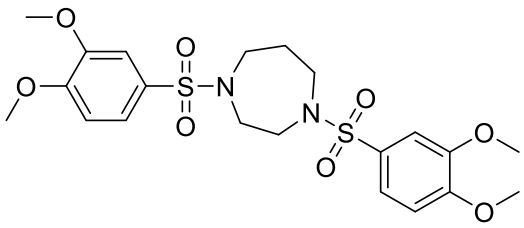
Product data sheet

MedKoo Cat#: 528518 Name: SB-756050 CAS#: 447410-57-3 Chemical Formula: $C_{21}H_{28}N_2O_8S_2$ Exact Mass: 500.1287 Molecular Weight: 500.58	
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:
SB-756050 is a G protein-coupled bile acid receptor 1 (GPBAR1) agonist potentially for the treatment of type 2 diabetes.

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
DMF	10	19.98
DMSO	10	19.98

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.00 mL	9.99 mL	19.98 mL
5 mM	0.40 mL	2.00 mL	4.00 mL
10 mM	0.20 mL	1.00 mL	2.00 mL
50 mM	0.04 mL	0.20 mL	0.40 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. Hodge RJ, Lin J, Vasist Johnson LS, Gould EP, Bowers GD, Nunez DJ; SB-756050 Project Team. Safety, Pharmacokinetics, and Pharmacodynamic Effects of a Selective TGR5 Agonist, SB-756050, in Type 2 Diabetes. Clin Pharmacol Drug Dev. 2013 Jul;2(3):213-22. doi: 10.1002/cpdd.34. Epub 2013 May 14. PMID: 27121782.

7. Bioactivity
Biological target:

SB-756050 is an agonist of TGR5 (EC50 = 1.3 μM for the human receptor). It is selective for TGR5 over the farnesoid X receptor (FXR) and a panel of other receptors, channels, and transporters.

In vitro activity

To be determined

In vivo activity

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In a type 2 diabetes clinical trial, SB-756050 was well-tolerated. It was readily absorbed, exhibited nonlinear pharmacokinetics with a less than dose-proportional increase in plasma exposure above 100 mg, and demonstrated no significant changes in exposure when co-administered with sitagliptin. The glucose effects of SB-756050 + sitagliptin were comparable to those of sitagliptin alone,despite differences in gut hormone plasma profiles.

Reference: Clin Pharmacol Drug Dev. 2013 Jul;2(3):213-22. https://pubmed.ncbi.nlm.nih.gov/27121782/