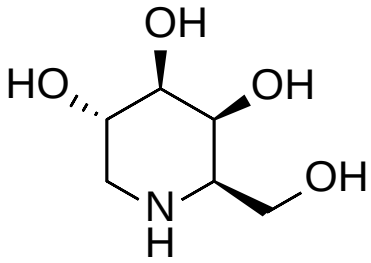
Product data sheet

MedKoo Cat#: 573849 Name: Migalastat CAS: 108147-54-2 (free base) Chemical Formula: $C_6H_{13}NO_4$ Exact Mass: 163.0845 Molecular Weight: 163.173	
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:
Migalastat is a potent inhibitor of glycolipid biosynthesis.

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
TBD	TBD	TBD

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	6.13 mL	30.64 mL	61.28 mL
5 mM	1.23 mL	6.13 mL	12.26 mL
10 mM	0.61 mL	3.06 mL	6.13 mL
50 mM	0.12 mL	0.61 mL	1.23 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

TBD

In vivo study

1. Braunstein H, Papazian M, Maor G, Lukas J, Rolfs A, Horowitz M. Misfolding of Lysosomal α-Galactosidase a in a Fly Model and Its Alleviation by the Pharmacological Chaperone Migalastat. Int J Mol Sci. 2020 Oct 7;21(19):7397. doi: 10.3390/ijms21197397. PMID: 33036426; PMCID: PMC7583893.

7. Bioactivity
Biological target:

Migalastat (GR181413A free base) is an orally active and competitive inhibitor of α-galactosidase A (α-Gal A) with an IC_{50} of 0.04 μM.

In vitro activity

TBD

In vivo activity

Western blots of the proteins indicated that there was an increase in stability of WT α-Gal A in flies treated with 50 μM migalastat (Figure 2A,B). There was a 2.5- and a 3-fold increase in the total amount of the A156V α-Gal A following 10 μM and 50 μM

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chaperone treatment, respectively, and elevation in the lysosomal fraction of the mutant protein, indicating that migalastat is able to bind the protein and to assist in its folding and trafficking from the ER to the lysosomes (Figure 2C,D). Moreover, even in the A285D-expressing flies, there was a 2.5-fold increase in the total amount of α-Gal A, as well as appearance of a small lysosomal fraction, following 20 μM migalastat treatment (Figure 2E,F).

Reference: Int J Mol Sci. 2020 Oct; 21(19): 7397. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7583893/

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.