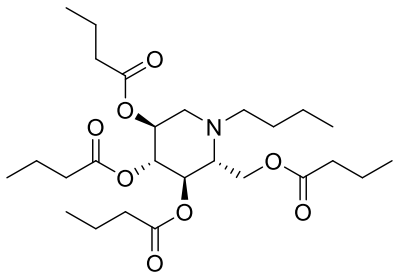
Product data sheet

MedKoo Cat#: 461884 Name: Glycovir CAS#: 131262-82-3 (free base) Chemical Formula: $C_{26}H_{45}NO_8$ Exact Mass: 499.3145 Molecular Weight: 499.64	
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:
Glycovir, also known as SC-49483, is an anti-HIV prodrug. Glycovir is an alpha-glucosidase-1 inhibitor, and a candidate anti-HIV agent targeted against viral glycoprotein processing in host cell endoplasmic reticulum.

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	TBD	TBD

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.00 mL	10.01 mL	20.01 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

TBD

In vivo study

1. Khan KN, Snook SS, Semler DE, Baron DA, Alden CL. Pathology of perbutylated-N-butyl-1-deoxynojiromycin (an alpha-glucosidase-1 inhibitor) in Sprague-Dawley rats. Toxicol Pathol. 1996 Sep-Oct;24(5):531-8. doi: 10.1177/019262339602400501. PMID: 8923673.

7. Bioactivity
Biological target:

Glycovir is an alpha-glucosidase-1 inhibitor, and a candidate anti-HIV agent targeted against viral glycoprotein processing in host cell endoplasmic reticulum.

In vitro activity

TBD

Product data sheet

In vivo activity

The potential toxicity of perbutylated-N-butyl-1-deoxynojiromycin (p-N-butyl-DNJ, SC-49483), was evaluated in Sprague-Dawley rats after 4, 13, or 26 wk of oral administration at doses ranging from 300 to 3,670 mg/kg/day. In these studies, the target organs of p-N-butyl-DNJ effects were thyroid gland, salivary gland, stomach, and pancreas. The most prominent histologic change in these organs was the presence of clear or lightly eosinophilic vacuoles in the cytoplasm of thyroid follicular cells, gastric chief cells, salivary gland acinar cells, and exocrine pancreatic acinar cells. Ultrastructurally, these vacuoles were consistent with dilated rough endoplasmic reticulum, which sometimes contained homogeneously stained, moderately electron-dense material. The vacuoles in thyroid follicular cells contained pale eosinophilic colloidlike material consistent with accumulated thyroglobulin, as shown by immunohistochemical staining methods. The biological functions of these organs were not adversely affected as evidenced by the absence of clinical signs and the results of selected hormonal analyses. The morphologic changes were completely reversed after a 4-wk recovery period. It is believed that morphologic changes in thyroid follicular cells, salivary gland acinar cells, pancreatic acinar cells, and gastric chief cells were the result of nonspecific inhibition of host alpha-glucosidase(s) by p-N-butyl-DNJ, causing clinically silent perturbation in host cell glycoprotein processing and/or glycoprotein transport.

Reference: Toxicol Pathol. Sep-Oct 1996;24(5):531-8. https://pubmed.ncbi.nlm.nih.gov/8923673/