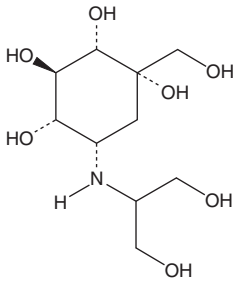
PRODUCT INFORMATION

Voglibose

Item No. 14179

CAS Registry No.:	83480-29-9
Formal Name:	3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)-D-*epi*-inositol
Synonym:	AO-128
MF:	$C_{10}H_{21}NO_7$
FW:	267.3
Purity:	≥95%
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

Voglibose is supplied as a crystalline solid. A stock solution may be made by dissolving the voglibose in the solvent of choice, which should be purged with an inert gas. Voglibose is soluble in the organic solvent DMSO at a concentration of approximately 2 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of voglibose can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of voglibose in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Voglibose is an inhibitor of α-glucosidases (IC_{50}s = 5.6, 0.11, 0.16, and 0.07 µM for human lysosomal α-glucosidase and rat maltase, isomaltase, and sucrase, respectively).[1] It is selective for human α- over β-glucosidase (IC_{50} = >1,000 µM). Voglibose (0.2 mg/kg) decreases body weight and food intake in sucrose-loaded Goto-Kakizaki (GK) type 2 diabetic rats.[2]

References

1. Kuriyama, C., Kamiyama, O., Ikeda, K., *et al.* In vitro inhibition of glycogen-degrading enzymes and glycosidases by six-membered sugar mimics and their evaluation in cell cultures. *Bioorg. Med. Chem.* **16(15)**, 7330-7336 (2008).
2. Goda, T., Suruga, K., Komori, A., *et al.* Effects of miglitol, an α-glucosidase inhibitor, on glycaemic status and histopathological changes in islets in non-obese, non-insulin-dependent diabetic Goto-Kakizaki rats. *Br. J. Nutr.* **98(4)**, 702-710 (2007).

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