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Produktinformation

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- Diagnostik & molekulare Diagnostik
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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

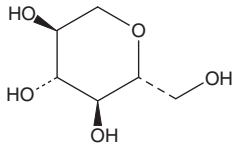
linkedin.com/company/szaboscandic

PRODUCT INFORMATION

1,5-Anhydro-D-glucitol

Item No. 29874

CAS Registry No.: 154-58-5
Synonyms: 1,5-AG, 1,5-Anhydroglucitol, 1,5-Anhydro-D-sorbitol, 1,5-Anhydrosorbitol, 1-Deoxy-D-glucopyranose, 1-Deoxy-D-glucose, 1,5-D-Sorbitol
MF: $C_6H_{12}O_5$
FW: 164.2
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

1,5-Anhydro-D-glucitol (1,5-AG) is supplied as a crystalline solid. A stock solution may be made by dissolving the 1,5-AG in the solvent of choice, which should be purged with an inert gas. 1,5-AG is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 1,5-AG in these solvents is approximately 2, 25, and 30 mg/ml, respectively.

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 1,5-AG can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 1,5-AG in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

1,5-AG is a monosaccharide and a metabolically inert analog of D-glucose that has been found in a variety of dietary sources including soy, white rice, pasta, vegetables, fish, and tea.[1,2] Renal reabsorption of 1,5-AG is blocked by glucose, and serum levels of 1,5-AG are decreased by repeated episodes of hypoglycemia. Serum levels of 1,5-AG have been used as a supplementary glycemic marker to hemoglobin A1c (HbA1c) levels in patients with diabetes mellitus.

References

1. Dungan, K.M. 1,5-anhydroglucitol (GlycoMark) as a marker of short-term glycemic control and glycemic excursions. *Expert Rev. Mol. Diagn.* **8(1)**, 9-19 (2008).
2. Kim, W.J. and Park, C.Y. 1,5-Anhydroglucitol in diabetes mellitus. *Endocrine* **43(1)**, 33-40 (2013).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM