

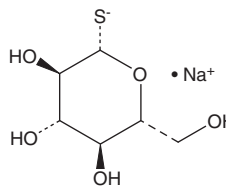
PRODUCT INFORMATION



1-thio-β-D-Glucose (sodium salt)

Item No. 16485

CAS Registry No.: 10593-29-0
Formal Name: 1-thio-β-D-glucopyranose, monosodium salt
MF: C₆H₁₁O₅S • Na
FW: 218.2
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

1-thio-β-D-Glucose (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the 1-thio-β-D-glucose (sodium salt) in the solvent of choice, which should be purged with an inert gas. 1-thio-β-D-Glucose (sodium salt) is soluble in the organic solvent DMSO at a concentration of approximately 10 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 1-thio-β-D-glucose (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 1-thio-β-D-glucose (sodium salt) 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-thio-β-D-Glucose is an analog of β-D-glucose in which sulfur replaces the hydroxyl group at the one position. The thiol group allows diverse chemical reactions, including the thiol-Michael addition reaction and polymerization.¹⁻³ 1-thio-β-D-Glucose can be labeled with technetium-99m for analytical and diagnostic procedures.⁴⁻⁶ It can also be used as a substrate for glucose oxidase, which leads to the production of 1-thio-β-D-gluconic acid.⁷

References

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WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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