

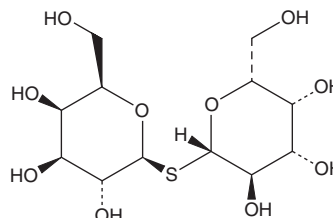
PRODUCT INFORMATION



Thiodigalactoside

Item No. 17154

CAS Registry No.: 51555-87-4
Formal Name: β -D-galactopyranosyl 1-thio- β -D-galactopyranoside
Synonyms: D-Galactopyranosyl- β -D-thiogalactopyranoside, Galactosyl 1-thiogalactoside, TDG
MF: C₁₂H₂₂O₁₀S
FW: 358.4
Purity: \geq 98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

Thiodigalactoside is supplied as a crystalline solid. A stock solution may be made by dissolving the thiodigalactoside in the solvent of choice, which should be purged with an inert gas. Thiodigalactoside is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of thiodigalactoside in these solvents is approximately 20 and 1 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 thiodigalactoside can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of thiodigalactoside in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Galectins are a family of glycan-binding lectins with diverse regulatory roles in physiological processes.^{1,2} They have significant roles in inflammation and cancer.^{1,2} Thiodigalactoside is a diglycan that binds galectins-1, -3, -8, and -9 with K_d values between 24 and 78 μ M.^{3,4} It is used to investigate the roles of these galectins in cell signaling and carcinogenesis.⁵⁻⁷

References

1. Ebrahim, A.H., Alalawi, Z., Mirandola, L., et al. *Ann. Transl. Med.* **2(9)**, 88-95 (2014).
2. Than, N.G., Romero, R., Balogh, A., et al. *J. Pathol. Transl. Med.* **49(3)**, 181-208 (2015).
3. Salameh, B.A., Cumpstey, I., Sundin, A., et al. *Bioorg. Med. Chem.* **18(14)**, 5367-5378 (2010).
4. van Hattum, H., Branderhorst, H.M., Moret, E.E., et al. *J. Med. Chem.* **56(3)**, 1350-1354 (2013).
5. Ito, K., Scott, S.A., Cutler, S., et al. *Angiogenesis* **14(3)**, 293-307 (2011).
6. Kuo, P., Bratman, S.V., Shultz, D.B., et al. *Clin. Cancer Res.* **20(21)**, 5558-5569 (2014).
7. Mukherjee, R., Kim, S.W., Park, T., et al. *Int. J. Obes. (Lond)* **39(9)**, 1349-1358 (2015).

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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