

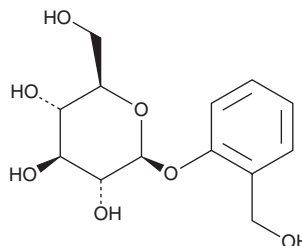
PRODUCT INFORMATION



Salicin

Item No. 17357

CAS Registry No.: 138-52-3
Formal Name: 2-(hydroxymethyl)phenyl-β-D-glucopyranoside
Synonyms: NSC 5751, D-(-)-Salicin
MF: C₁₃H₁₈O₇
FW: 286.3
Purity: ≥98%
UV/Vis.: λ_{max}: 214, 269 nm
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

Salicin is supplied as a crystalline solid. A stock solution may be made by dissolving the salicin in the solvent of choice, which should be purged with an inert gas. Salicin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of salicin in these solvents is approximately 3, 20, 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 salicin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of salicin in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Salicin is an alcoholic β-glucoside derived from willow bark that produces anti-inflammatory (including analgesic and antipyretic) effects very similar to that of aspirin (Item No. 70260).¹ It acts as a non-selective COX inhibitor, exhibiting IC₅₀ values > 100 μM for COX-1 and COX-2.²

References

1. Blobaum, A.L. and Marnett, L.J. Structural and functional basis of cyclooxygenase inhibition. *J. Med. Chem.* **50**(7), 1425-1441 (2007).
2. Warner, T.D., Giuliano, F., Vojnovic, I., et al. Nonsteroid drug selectivities for cyclo-oxygenase-1 rather than cyclo-oxygenase-2 are associated with human gastrointestinal toxicity: A full *in vitro* analysis. *Proc. Natl. Acad. Sci. USA* **96**(13), 7563-7568 (1999).

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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