

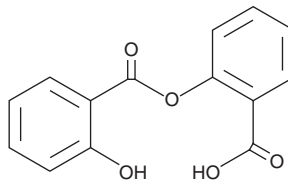
PRODUCT INFORMATION



Salsalate

Item No. 11911

CAS Registry No.: 552-94-3
Formal Name: 2-hydroxy-2-carboxyphenyl ester-
benzoic acid
Synonyms: Nobacid, NSC 49171
MF: C₁₄H₁₀O₅
FW: 258.2
Purity: ≥98%
UV/Vis.: λ_{max}: 207, 234, 308 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

Salsalate is supplied as a crystalline solid. A stock solution may be made by dissolving the salsalate in the solvent of choice, which should be purged with an inert gas. Salsalate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of salsalate in these solvents is approximately 3, 5, and 14 mg/ml, respectively.

Salsalate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, salsalate should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Salsalate has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Salsalate is a non-steroidal anti-inflammatory drug (NSAID) and prodrug form of salicylic acid.¹ It is converted to salicylic acid by hydrolysis. It inhibits prostaglandin E₂ (PGE₂; Item No. 14010) production in isolated human whole blood stimulated with LPS (IC₅₀ = 39.9 μM).² Salsalate (1,000 mg/kg) inhibits weight gain and decreases fasting plasma glucose and insulin levels, as well as decreases plasma cholesterol and triglyceride levels in a mouse model of non-alcoholic steatohepatitis (NASH) induced by a high-fat high-cholesterol diet.³ Formulations containing salsalate have been used in the treatment of pain associated with osteoarthritis and rheumatoid arthritis.

References

1. Shah, K., Gupta, J.K., Chauhan, N.S., *et al.* Prodrugs of NSAIDs: A Review. *Open Med. Chem. J.* (2017).
2. Cryer, B. and Feldman, M. Cyclooxygenase-1 and cyclooxygenase-2 selectivity of widely used nonsteroidal anti-inflammatory drugs. *Am. J. Med.* **104(5)**, 413-421 (1998).
3. Liang, W., Verschuren, L., Mulder, P., *et al.* Salsalate attenuates diet induced non-alcoholic steatohepatitis in mice by decreasing lipogenic and inflammatory processes. *Br. J. Pharmacol.* **172(22)**, 5293-5305 (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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/08/2022

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