

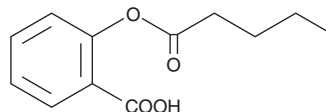
PRODUCT INFORMATION



Valeroyl Salicylate

Item No. 70670

CAS Registry No.: 64206-54-8
Formal Name: 2-[(1-oxopentyl)oxy]-benzoic acid
Synonym: 2-Valeryloxybenzoic Acid
MF: C₁₂H₁₄O₄
FW: 222.2
Purity: ≥95%
Supplied as: A crystalline solid
Storage: Room temperature
Stability: ≥4 years



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

Laboratory Procedures

Valeroyl salicylate is supplied as a crystalline solid. A stock solution may be made by dissolving the valeroyl salicylate in the solvent of choice. Valeroyl salicylate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of valeroyl salicylate in these solvents is approximately 95, 43, and 70 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 valeroyl salicylate can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of valeroyl salicylate in PBS, pH 7.2, is approximately 6 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Valeroyl salicylate is a selective, irreversible inhibitor of COX-1. The IC₅₀ values for ovine COX-1 and -2 are 0.8 mM and 15 mM, respectively.¹ The half-lives for inactivation of human recombinant and ovine COX-1 in the presence of 500 μM valeroyl salicylate are 12 and 45 minutes, respectively.^{1,2}

References

1. Johnson, J.L., Wimsatt, J., Buckel, S.D., *et al.* Purification and characterization of prostaglandin H synthase-2 from sheep placental cotyledons. *Arch. Biochem. Biophys.* **324**, 26-34 (1995).
2. Bhattacharyya, D.K., Lecomte, M., Dunn, J., *et al.* Selective inhibition of prostaglandin endoperoxide synthase-1 (cyclooxygenase-1) by valerylsalicylic acid. *Arch. Biochem. Biophys.* **317**, 19-24 (1995).

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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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