

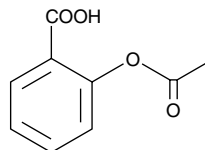
Product Information



Aspirin

Item No. 70260

CAS Registry No.: 50-78-2
Formal Name: 2-(acetyloxy)-benzoic acid
Synonym: Acetylsalicylic Acid
MF: C₉H₈O₄
FW: 180.2
Purity: ≥99%
Stability: ≥2 years at room temperature
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 226, 275 nm



Laboratory Procedures

For long term storage, we suggest that aspirin be stored as supplied at room temperature. It should be stable for at least two years.

Aspirin is supplied as a crystalline solid. A stock solution may be made by dissolving the aspirin in an organic solvent purged with an inert gas. Aspirin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of aspirin in these solvents is approximately 80, 41, 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. If an organic solvent-free solution of aspirin is needed, it can be prepared by dissolving the crystalline solid in aqueous buffers. The solubility of aspirin in PBS (pH 7.2) is approximately 2.7 mg/ml. Avoid adding aspirin to basic solutions (pH > 7.4), since base treatment will hydrolyze aspirin to salicylic acid. Store aqueous solutions of aspirin on ice and use within 30 minutes of preparation.

Aspirin is a non-selective, irreversible COX inhibitor. The IC₅₀ values for ovine COX-1 and -2 are 0.75 and 1.25 mM, respectively.¹ Aspirin acetylates COX-1 at Ser530 and COX-2 at Ser516 resulting in irreversible enzyme inhibition.

Reference

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).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/70260

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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