

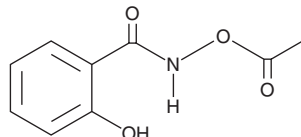
# PRODUCT INFORMATION



## O-Acetyl Salicylhydroxamic Acid

Item No. 70263

**CAS Registry No.:** 199854-00-7  
**Formal Name:** N-(acetyloxy)-2-hydroxy benzamide  
**Synonyms:** AcSHA, O-ASHA  
**MF:** C<sub>9</sub>H<sub>9</sub>NO<sub>4</sub>  
**FW:** 195.2  
**Purity:** ≥98%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

O-Acetyl salicylhydroxamic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the O-acetyl salicylhydroxamic acid in the solvent of choice, which should be purged with an inert gas. O-Acetyl salicylhydroxamic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of O-acetyl salicylhydroxamic acid in these solvents is approximately 25, 50, 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 O-acetyl salicylhydroxamic acid can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of O-acetyl salicylhydroxamic acid in PBS (pH 7.2) is approximately 0.2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

O-Acetyl Salicylhydroxamic Acid (O-ASHA) is an irreversible, non-selective inhibitor of COX-1 and COX-2. Aspirin is the best-studied example of an irreversible COX inhibitor, acting *via* the acetylation of the active site serine residue 529 in human COX-1. O-ASHA inhibits ovine COX-1 in a time-dependent, irreversible manner with a 50% B/B<sub>0</sub> value of approximately 4.5 mM.<sup>1</sup>

### Reference

1. Loll, P.J., Sharkey, C.T., O'Connor, S.J., *et al.* O-acetylsalicylhydroxamic acid, a novel acetylating inhibitor of prostaglandin H<sub>2</sub> synthase: structural and functional characterization of enzyme-inhibitor interactions. *Mol. Pharmacol.* **60**(6), 1407-1413 (2001).

#### 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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