

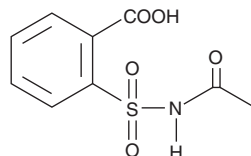
# PRODUCT INFORMATION



## N-acetyl-2-carboxy Benzenesulfonamide

Item No. 10008284

**CAS Registry No.:** 849067-18-1  
**Formal Name:** 2-[(acetylamino)sulfonyl]-benzoic acid  
**MF:** C<sub>9</sub>H<sub>9</sub>NO<sub>5</sub>S  
**FW:** 243.2  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 206, 224, 276 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

N-acetyl-2-carboxy Benzenesulfonamide is supplied as a crystalline solid. A stock solution may be made by dissolving the N-acetyl-2-carboxy benzenesulfonamide in an organic solvent purged with an inert gas. N-acetyl-2-carboxy Benzenesulfonamide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of N-acetyl-2-carboxy benzenesulfonamide in these solvents is approximately 30 mg/ml.

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 N-acetyl-2-carboxy benzenesulfonamide can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of N-acetyl-2-carboxy benzenesulfonamide in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

N-acetyl-2-carboxy Benzenesulfonamide is a structural analog of aspirin that acts as a non-selective inhibitor of cyclooxygenase (COX) with a COX-2 selectivity index of 0.23.<sup>1</sup> *In vitro* studies showed that N-acetyl-2-carboxy Benzenesulfonamide is a more potent inhibitor of COX-1/COX-2 with IC<sub>50</sub> values of 0.06 μM and 0.25 μM, respectively, than aspirin with IC<sub>50</sub> values of 0.35 μM and 2.4 μM, respectively.

### Reference

1. Chen, Q.-H., Rao, P.N.P., and Knaus, E.E. Design, synthesis, and biological evaluation of N-acetyl-2-carboxybenzenesulfonamides: A novel class of cyclooxygenase-2 (COX-2) inhibitors. *Bioorg. Med. Chem.* **13(7)**, 2459-2468 (2005).

#### 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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