

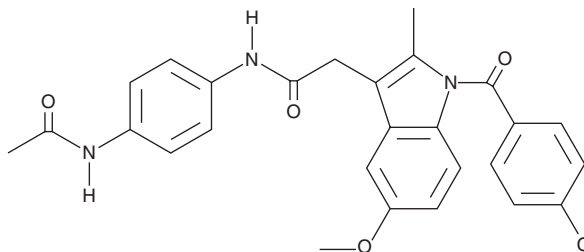
# PRODUCT INFORMATION



## N-(4-acetamidophenyl)-Indomethacin amide

Item No. 70278

**CAS Registry No.:** 261766-23-8  
**Formal Name:** N-(4-acetamidophenyl)-1-(4-chlorobenzoyl)-5-methoxy-2-methyl-1H-indole-3-acetamide  
**Synonym:** N-4AIA  
**MF:** C<sub>27</sub>H<sub>24</sub>ClN<sub>3</sub>O<sub>4</sub>  
**FW:** 490.0  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 267 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-(4-acetamidophenyl)-Indomethacin amide (N-4-AIA) is supplied as a crystalline solid. A stock solution may be made by dissolving the N-4-AIA in the solvent of choice, which should be purged with an inert gas. N-4-AIA is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of N-4-AIA in these solvents is approximately 15 and 23 mg/ml, respectively.

N-4-AIA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, N-4-AIA should first be dissolved in DMF and then diluted with the aqueous buffer of choice. N-4-AIA has a solubility of approximately 16 mg/ml in a 5:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

N-4-AIA is one of several aromatic amides of indomethacin reported to be potent and selective reversible inhibitors of COX-2.<sup>1</sup> N-4-AIA inhibits human recombinant and ovine COX-2 with IC<sub>50</sub> values of 0.12 and 0.625 μM, respectively.<sup>1,2</sup> It is about 400 times less potent as an inhibitor of human recombinant COX-1 and 80 times less potent as an inhibitor of ovine COX-1 than ovine COX-2.

### References

1. Kalgutkar, A.S., Marnett, A.B., Crews, B.C., *et al.* Ester and amide derivatives of the nonsteroidal antiinflammatory drug, indomethacin, as selective cyclooxygenase-2 inhibitors. *J. Med. Chem.* **43(15)**, 2860-2870 (2000).
2. Johnson, J.L. [Unpublished] (1999).

#### 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