

# PRODUCT INFORMATION

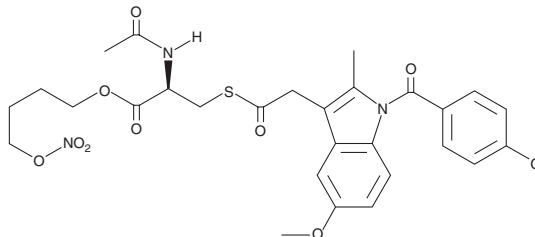


## NO-Indomethacin

Item No. 10005705

**CAS Registry No.:** 301838-28-8  
**Formal Name:** N-acetyl-D-cysteine-1-(4-chlorobenzoyl)-5-methoxy-2-methyl-1H-indole-3-acetic acid, 4-(nitrooxy)butyl ester

**Synonym:** NCX 2121  
**MF:** C<sub>28</sub>H<sub>30</sub>ClN<sub>3</sub>O<sub>9</sub>S  
**FW:** 620.1  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 322 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

NO-indomethacin is supplied as a crystalline solid. A stock solution may be made by dissolving the NO-indomethacin in the solvent of choice, which should be purged with an inert gas. NO-indomethacin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of NO-indomethacin in these solvents is approximately 0.5, 20, and 30 mg/ml, respectively.

NO-indomethacin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, NO-indomethacin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. NO-indomethacin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

NO-indomethacin is a hybrid molecule of indomethacin and a nitric oxide (NO) donor. This drug design combines the anti-inflammatory drug (NSAID) with the gastrointestinal protective effects of NO. Compounds of this class retain their anti-inflammatory and analgesic activity, but have reduced gastrointestinal and kidney toxicity compared to the NSAID alone.<sup>1</sup> NO-indomethacin also enhances the cancer chemopreventative activity of indomethacin. NO-indomethacin exhibits an IC<sub>50</sub> of 82 μM, compared to >1,000 μM for indomethacin alone, for the inhibition of pancreatic cancer cell (PaCa-2) growth after 24 hours in culture.<sup>2</sup>

### References

- Wallace, J.F., Elliott, S.N., Del Soldato, P., *et al.* Gastrointestinal-sparing anti-inflammatory drugs: The development of nitric oxide-releasing NSAIDs. *Drug Development Research* **42**, 144-149 (1997).
- Kashfi, K., Ryann, Y., Qiao, L.L., *et al.* Nitric oxide-donating nonsteroidal anti-inflammatory drugs inhibit the growth of various cultured human cancer cells: Evidence of a tissue type-independent effect. *J. Pharmacol. Ther.* **303**(3), 1273-1282 (2002).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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