



# LKT Laboratories, Inc.

## Diclofenac Impurity C

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### Product Information

**Product ID** D324090

**CAS No.** 27204-57-5

**Chemical Name** [2-[(2,6-Dichlorophenyl)amino]phenyl]methanol

**Synonym** Diclofenac EP impurity C; Diclofenac impurity 3; 2-[(2,6-Dichlorophenyl)amino]benzenemethanol; o-(2,6-Dichloroanilino)benzyl Alcohol ;Diclofenac Alcohol.

**Formula** C<sub>13</sub>H<sub>11</sub>Cl<sub>2</sub>NO

**Formula Wt.** 268.14

**Melting Point**

Purity ≥98%

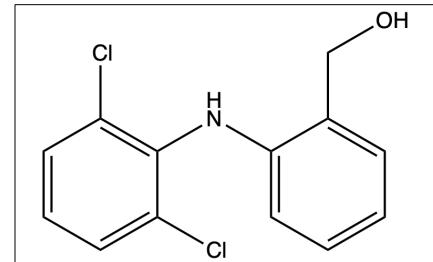
**Solubility**

**Store Temp** 4°C

**Ship Temp** Ambient

**Description** Diclofenac Impurity C (Diclofenac EP impurity C) is an impurity of Diclofenac.

Diclofenac is a non-steroidal anti-inflammatory drug (NSAID) that is clinically used to treat inflammation associated with arthritis and gout as well as other pain or inflammatory disorders; it is somewhat selective in inhibiting COX-2 over COX-1. Diclofenac exhibits anti-inflammatory, antipyretic, analgesic, antinociceptive, anticonvulsant, anti-angiogenic, anticancer chemotherapeutic, and chemopreventive activities. In vitro, the anticonvulsant/antiepileptic activity of diclofenac may stem from inhibition of delayed rectifier K<sup>+</sup> channel amplitude and acceleration of channel inactivation; it also increases the amplitude of M-type K<sup>+</sup> channels. This compound inhibits DMH-induced colon carcinogenesis in vivo, decreasing levels of COX-2, VEGF, and MCP-1. Diclofenac also decreases the epithelial-to-mesenchymal transition (EMT), suppressing squamous cell carcinoma tumor growth.



### Pricing and Availability

**Bulk quantities available upon request**

Product ID	Size	List Price
D324090	5 mg	\$121.10
D324090	25 mg	\$370.90
D324090	100 mg	\$1112.50

**References**

- Arumugam A, Weng Z, Talwelkar SS, et al. Inhibiting cyclooxygenase and ornithine decarboxylase by diclofenac and alpha-difluoromethylornithine blocks cutaneous SCCs by targeting Akt-ERK axis. *PLoS One*. 2013 Nov 8;8(11):e80076. PMID: 24260338.
- Akbari E, Mirzaei E, Shahabi Majd N. Long-term Morphine-treated Rats are more Sensitive to Antinociceptive Effect of Diclofenac than the Morphine-naive rats. *Iran J Pharm Res*. 2013 Winter;12(1):175-84. PMID: 24250586.
- Huang CW, Hung TY, Liao YK, et al. Underlying mechanism of regulatory actions of diclofenac, a nonsteroidal anti-inflammatory agent, on neuronal potassium channels and firing: an experimental and theoretical study. *J Physiol Pharmacol*. 2013 Jun;64(3):269-80. PMID: 23959723.
- Kaur J, Sanyal SN. Diclofenac, a selective COX-2 inhibitor, inhibits DMH-induced colon tumorigenesis through suppression of MCP-1, MIP-1 $\alpha$  and VEGF. *Mol Carcinog*. 2011 Sep;50(9):707-18. PMID: 21268133.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.