



# LKT Laboratories, Inc.

## Diclofenac Sodium

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### Product Information

**Product ID** D3209

**CAS No.** 15307-79-6

**Chemical Name** 2-[(2,6-Dichlorophenyl)amino]benzeneacetic acid

**Synonym** Voltarol

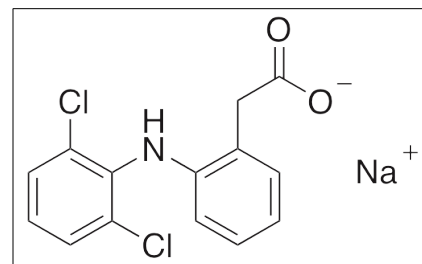
**Formula**  $C_{14}H_{10}Cl_2NO_2Na$

**Formula Wt.** 318.14

**Melting Point** 283-285°C

**Purity** ≥98%

**Solubility** Soluble in water or acetone.



**Bulk quantities available upon request**

Product ID	Size
D3209	10 g
D3209	25 g
D3209	100 g

**Store Temp** Ambient

**Ship Temp** Ambient

**Description** 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.

**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-1α 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.