LKT Laboratories, Inc.

Diclofenac Chloroacetyl impurity

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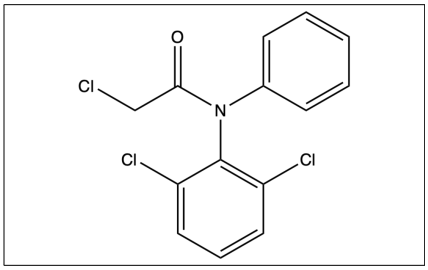
Product Information

Product ID D324104
CAS No. 15308-01-7
Chemical Name 2-Chloro-N-(2,6-dichlorophenyl)-N-phenylacetamide

Synonym Acetamide, 2-chloro-N-(2,6-dichlorophenyl)-N-phenyl-, ZA3DY2Z4ZR, Diclofenac Related Compound (N-Chloroacetyl-N-phenyl-2,6-dichloroaniline); Diclofenac impurity 5.

Formula $C_{14}H_{10}Cl_3NO$
Formula Wt. 314.59
Melting Point
Purity ≥99%
Solubility



Pricing and Availability

Bulk quanitites available upon request

Product ID	Size	List Price
D324104	100 mg	$108.80
D324104	500 mg	$286.10

Store Temp 4°C
Ship Temp Ambient
Description Diclofenac Chloroacetyl impurity 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+ channel amplitude and acceleration of channel inactivation; it also increases the amplitude of M-type K+ 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

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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.