



LKT Laboratories, Inc.

Isoflurane

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Product Information

Product ID I7258

CAS No. 26675-46-7

Chemical Name 2-chloro-2-(difluoromethoxy)-1,1,1-trifluoroethane

Synonym 1-Chloro-2,2,2-trifluoroethyl difluoromethyl ether; Forane; 2-Chloro-2-(difluoromethoxy)-1,1,1-trifluoroethane

Formula C₃H₂ClF₅O

Formula Wt. 184.49

Melting Point

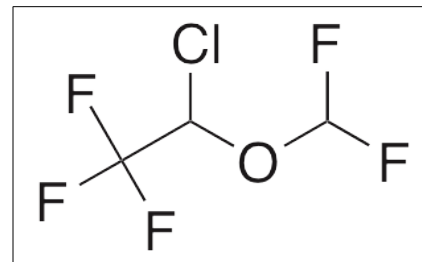
Purity ≥98%

Solubility Soluble in water (4.47 mg/ml at 37 °C), and organic liquids including fats and oils

Store Temp Ambient

Ship Temp Ambient

Description Isoflurane is an anesthetic most commonly used in veterinary medicine. Isoflurane exhibits cardiomodulatory, neuromodulatory, and pro-inflammatory activities. In diabetic rats, isoflurane decreases cardiac force and intracellular Ca²⁺ amplitude. Isoflurane also increases IL-6 and NF-κB levels in glioma cells and microglia. In other cellular models, isoflurane inhibits L-type voltage-gated Ca²⁺ channel currents at resting membrane potential. Additionally, isoflurane binds and modulates signaling by ATP synthase and NADH dehydrogenase. Isoflurane also inhibits delayed rectifier and A-type K⁺ channels and NMDA receptors, activates Ca²⁺ ATPase and ATP-sensitive K⁺ channels, and potentiates GABA-A and glycine (GlyR) receptors.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
I7258	250 mg	\$45.00
I7258	1 g	\$65.00
I7258	5 g	\$85.00
I7258	25 g	\$125.00

References Shen X, Bhatt N, Xu J, et al. Effect of isoflurane on myocardial energetic and oxidative stress in cardiac muscle from Zucker diabetic Fatty rat. *J Pharmacol Exp Ther*. 2014 Apr;349(1):21-8. PMID: 24431470.

Fanchaouy M, Cubano L, Maldonado H, et al. PKC independent inhibition of voltage gated calcium channels by volatile anesthetics in freshly isolated vascular myocytes from the aorta. *Cell Calcium*. 2013 Oct;54(4):257-65. PMID: 23948226.

Zhang L, Zhang J, Yang L, et al. Isoflurane and sevoflurane increase interleukin-6 levels through the nuclear factor-kappa B pathway in neuroglioma cells. *Br J Anaesth*. 2013 Jun;110 Suppl 1:i82-91. PMID: 23604542.

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