



# LKT Laboratories, Inc.

## Ozagrel Hydrochloride

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### Product Information

Product ID O9702

CAS No. 82571-53-7

#### Chemical Name

Synonym 3-[4-(1H-imidazol-1-ylmethyl)phenyl]-2E-propenoic acid,  
OKY-046

Formula  $C_{13}H_{12}N_2O_2 \cdot HCl$

Formula Wt. 264.71

Melting Point

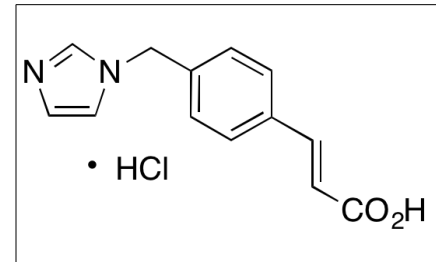
Purity  $\geq 98\%$

Solubility

Store Temp Ambient

Ship Temp Ambient

**Description** Ozagrel is an inhibitor of thromboxane A<sub>2</sub> (TxA<sub>2</sub>) synthase that displays antithrombotic, anti-asthma, and anti-allergic activities. In vivo, ozagrel decreases airway responses to inhalation of leukotriene C<sub>4</sub> (LTC<sub>4</sub>) and TxA<sub>2</sub> analog STA<sub>2</sub>, inhibiting secondary release of TxA<sub>2</sub>. In other animal models of bronchoconstriction, ozagrel increases levels of prostaglandin I<sub>2</sub> (PGI<sub>2</sub>), inhibiting histamine release. In clinical settings, ozagrel decreases airway contraction in subjects with exercise-induced asthma. In diabetic mice, this compound inhibits retinal arteriolar constriction, preventing decreases in retinal blood flow associated with diabetes-induced retinopathy. Additionally, ozagrel displays cardioprotective activity, decreasing infarct size and thrombus formation in animal models of ischemia-induced myocardial injury. Ozagrel is also hepatoprotective, inhibiting expression of Jun, Fos, and C/EBP homologous protein (CHOP), preventing acetaminophen-induced liver injury.



**Bulk quantities available upon request**

Product ID	Size
O9702	10 mg
O9702	25 mg
O9702	100 mg

**References** Sathler PC, Santana M, Lourenço AL, et al. Human thromboxane synthase: comparative modeling and docking evaluation with the competitive inhibitors Dazoxiben and Ozagrel. *J Enzyme Inhib Med Chem.* 2013 Aug 5. Epub ahead of print. PMID: 23914925.

Tomishima Y, Ishitsuka Y, Matsunaga N, et al. Ozagrel hydrochloride, a selective thromboxane A<sub>2</sub> synthase inhibitor, alleviates liver injury induced by acetaminophen overdose in mice. *BMC Gastroenterol.* 2013 Jan 30;13:21. PMID: 23363429.

Lee S, Morgan GA, Harris NR. Ozagrel reverses streptozotocin-induced constriction of arterioles in rat retina. *Microvasc Res.* 2008 Nov;76(3):217-23. PMID: 18718478.

Fujimura M, Ogawa H, Saito M, et al. Inhibitory effect of inhalation of a thromboxane synthetase inhibitor on bronchoconstriction induced by aerosolized leukotriene C<sub>4</sub> and thromboxane A<sub>2</sub> analogue in anesthetized guinea pigs. *Allergy.* 1991 Oct;46(7):534-9. PMID: 1796779.

Hoshino M, Fukushima Y. Effect of OKY-046 (thromboxane A<sub>2</sub> synthetase inhibitor) on exercise-induced asthma. *J Asthma.* 1991;28(1):19-29. PMID: 1849133.

Nambu F, Murakata S, Shiraji T, et al. OKY-046 inhibits anaphylactic bronchoconstriction and reduces histamine level in bronchoalveolar lavage fluid in sensitized guinea pigs. *Prostaglandins.* 1990 Jun;39(6):623-37. PMID:

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