

Product Data Sheet

Product Name: Ozagrel
Cat. No.: GC15757

Chemical Properties

Cas. No. 82571-53-7

Chemical Name (E)-3-[4-(imidazol-1-ylmethyl)phenyl]prop-2-enoic acid

SMILES C1=CC(=CC=C1CN2C=CN=C2)C=CC(=O)O

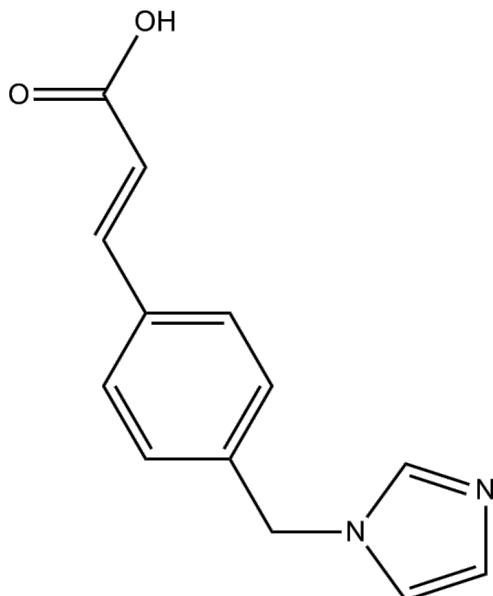
Formula $C_{13}H_{12}N_2O_2$ M.Wt 228.25

Solubility ≥ 10.8 mg/mL in DMSO, ≥ 13.23 mg/mL in EtOH with ultrasonic and warming, ≥ 17.03 mg/mL in Water Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Caution: Product has not been fully validated for medical applications. For research use only.

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Ozagrel (OKY-046) is an antiplatelet agent working as a thromboxane A₂ synthesis inhibitor. Target: Thromboxane A₂ Synthase. Ozagrel was selected as the best compound of highly selective inhibitors of TXA₂ synthase. The inhibition of TXA₂ synthase by ozagrel was more effective on human and rabbit enzymes than those of other species. Ozagrel increased 6-keto-PGF₁ α , one of stable metabolites of PGI₂, in various isolated cells and tissues perhaps via accumulated PG endoperoxides resulted by the inhibition of TXA₂ synthase [1]. Ozagrel was estimated to be a reversible mixed-type inhibitor of diphenolase activity with the constants (K (S₁), K (S₂), K (i₁), and K (i₂)) determined to be 2.21, 3.89, 0.454, and 0.799 mM, respectively [2]. Infusion of OKY-046 significantly inhibited pulmonary thromboxane B₂ delivery, attenuated the early increase in pulmonary vascular resistance, and blocked the increase in systemic vascular resistance. In addition, OKY-046 blunted and delayed the decrease in cardiac output and maintained end-systolic pressure-diameter relation, +dp/dt, and lung lymph flow at baseline values [3].

References:

- [1]. Nakazawa, M., et al., [Research and development of ozagrel, a highly selective inhibitor of TXA₂ synthase]. Yakugaku Zasshi, 1994. 114(12): p. 911-33.
- [2]. Li, S.B., et al., In vitro effect of ozagrel on mushroom tyrosinase. Protein J, 2009. 28(3-4): p. 182-8.
- [3]. Westphal, M., et al., Selective thromboxane A₂ synthase inhibition by OKY-046 prevents cardiopulmonary dysfunction after ovine smoke inhalation injury. Anesthesiology, 2005. 102(5): p. 954-61.

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