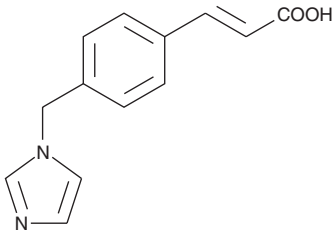
PRODUCT INFORMATION

Ozagrel

Item No. 70515

CAS Registry No.: 82571-53-7
Formal Name: 3-[4-(1H-imidiazol-1-ylmethyl)phenyl]-2E-propenic acid
Synonym: OKY-046
MF: $C_{13}H_{12}N_2O_2$
FW: 228.3
Purity: ≥98%
UV/Vis.: λ_{max}: 275 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Ozagrel is supplied as a crystalline solid. A stock solution may be made by dissolving the ozagrel in the solvent of choice, which should be purged with an inert gas. Ozagrel is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of ozagrel in these solvents is approximately 1 mg/ml.

Ozagrel is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ozagrel should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Ozagrel has a solubility of approximately 1 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Inhibition of thromboxane synthase (TXAS), especially in human platelets, has been a clinical objective for many years. 1-Alkyl (N-alkyl)-imidazole derivatives have been recognized as TXAS inhibitors since the early 1980s.[1-3] Ozagrel is a 1-alkyl imidazole derivative that acts as a selective inhibitor of TXAS with an IC_{50} of 11 nM. The beneficial effects of TXAS inhibition by ozagrel include improved motor coordination after experimental stroke[4] and antihypertensive effects in spontaneously hypertensive rats.[5]

References

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2. Wright, W.B., Tomcufcik, A.S., Chan, P.S., *et al.* Thromboxane synthase inhibitors and antihypertensive agents. 4,N-[(1H-imidazol-1-yl)alkyl] derivatives of quinazoline-2,4(1H,3H)-diones, quinazolin-4(3H)-ones, and 1,2,3-benzotriazin-4(3H)-ones. *J. Med. Chem.* **30,** 2277-2283 (1987).
3. Wright, W.B., Jr., Press, J.B., Chan, P.S., *et al.* Thromboxane synthetase inhibitors and antihypertensive agents. 1. N-[(1H-imidazol-1-yl)alkyl]aryl amides and N-[(1H-imidazol-1,2,4-triazol-1-yl)alkyl]aryl amides. *J. Med. Chem.* **29,** 523-530 (1986).
4. Ichikawa, K., Tazawa,S., Hamano, S., *et al.* Effect of ozagrel on locomotor and motor coordination after transient cerebral ischemia in experimental animal models. *Pharmacology* **59,** 257-265 (1999).
5. Press, J.B., Wright, W.B., Jr., Chan, P.S., *et al.* Thromboxane synthetase inhibitors and antihypertensive agents. 2. N-[(1H-Imidazol-1-yl)alkyl]-1H-isoindole-1,3(2H)-diones and N-[(1H-1,2,4-triazol-1-yl)alkyl]-1H-isoindole-1,3(2H)-diones as unique antihypertensive agents. *J. Med. Chem.* **29(5),** 816-819 (1986).

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