

Product data sheet



MedKoo Cat#: 330220 Name: Ozagrel free acid CAS: 82571-53-7 (free base) Chemical Formula: C ₁₃ H ₁₂ N ₂ O ₂ Exact Mass: 228.0899 Molecular Weight: 228.251	
Product supplied as: Powder	
Purity (by HPLC): ≥ 98%	
Shipping conditions: Ambient temperature	
Storage conditions: Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.	

1. Product description:

Ozagrel, also known as KCT-0809 and Cataclot, is a thromboxane A₂ synthase inhibitor used to treat cerebrovascular diseases.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMF	1.0	4.38
DMSO	33.67	147.50
DMSO:PBS (pH 7.2) (1:1)	1.0	4.38

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	4.38 mL	21.91 mL	43.81 mL
5 mM	0.88 mL	4.38 mL	8.76 mL
10 mM	0.44 mL	2.19 mL	4.38 mL
50 mM	0.09 mL	0.44 mL	0.88 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Matsunobu T, Okuno T, Yokoyama C, Yokomizo T. Thromboxane A synthase-independent production of 12-hydroxyheptadecatrienoic acid, a BLT₂ ligand. *J Lipid Res.* 2013 Nov;54(11):2979-87. doi: 10.1194/jlr.M037754. Epub 2013 Sep 5. PMID: 24009185; PMCID: PMC3793602.

In vivo study

1. Ishitsuka Y, Moriuchi H, Isohama Y, Tokunaga H, Hatamoto K, Kurita S, Irikura M, Iyama K, Irie T. A selective thromboxane A₂ (TXA₂) synthase inhibitor, ozagrel, attenuates lung injury and decreases monocyte chemoattractant protein-1 and interleukin-8 mRNA expression in oleic acid-induced lung injury in guinea pigs. *J Pharmacol Sci.* 2009 Oct;111(2):211-5. doi: 10.1254/jphs.09128sc. Epub 2009 Sep 26. PMID: 19783866.

2. Imamura T, Kiguchi S, Kobayashi K, Ichikawa K, Yamazaki Y, Kojima M. Effect of ozagrel, a selective thromboxane A₂-synthetase inhibitor, on cerebral infarction in rats. Comparative study with norphenazone, a free-radical scavenger. *Arzneimittelforschung.* 2003;53(10):688-94. doi: 10.1055/s-0031-1299813. PMID: 14650360.

7. Bioactivity

Biological target:

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Ozagrel (OKY-046) is an anti-asthmatic agent and a thromboxane A₂ (TXA₂) synthase inhibitor.

In vitro activity

Pretreatment of blood with ozagrel, an inhibitor of TxAS, also inhibited 12-HHT and TxB₂ production in a dose-dependent manner. Treatment of human platelets with 10 μM ozagrel almost completely inhibited thrombin-induced TxB₂ production, and 12-HHT production was inhibited by 40–60% (Fig. 2B, supplementary Fig. III-B). Conversely, production of PGD₂ and PGE₂ was markedly increased by ozagrel treatment.

Reference: J Lipid Res. 2013 Nov;54(11):2979-87. <https://pubmed.ncbi.nlm.nih.gov/24009185/>

In vivo activity

This study examined the effect of ozagrel, a thromboxane A₂ synthase inhibitor, on the accumulation of leucocytes and chemokine mRNA expression in lungs experimentally injured using oleic acid (OA). OA injection into guinea pigs rapidly increased thromboxane A₂ generation and subsequently increased total protein concentration and the numbers of macrophages and neutrophils in bronchoalveolar lavage fluid and increased monocyte chemoattractant protein-1 and interleukin-8 mRNA expression in the whole lung. Administration of ozagrel prevented these changes associated with OA injection.

Reference: J Pharmacol Sci. 2009 Oct;111(2):211-5. <https://pubmed.ncbi.nlm.nih.gov/19783866/>

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.