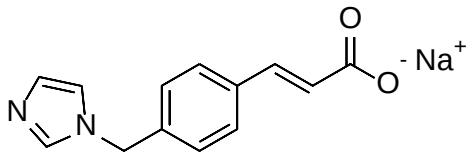
Product data sheet

MedKoo Cat#: 328502 Name: Ozagrel Sodium CAS: 189224-26-8 (sodium) Chemical Formula: $C_{13}H_{11}N_2NaO_2$ Molecular Weight: 250.2328	
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 Sodium, 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
DMSO	3.63	14.49
Water	50.0	199.81

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	4.00 mL	19.98 mL	39.96 mL
5 mM	0.80 mL	4.00 mL	7.99 mL
10 mM	0.40 mL	2.00 mL	4.00 mL
50 mM	0.08 mL	0.40 mL	0.80 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:
Ozagrel sodium (OKY-046 sodium) is a thromboxane A2 (TXA2) synthase inhibitor.

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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 A(2) 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 A(2) 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/