

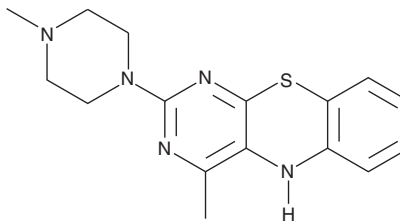
Product Information



15-Lipoxygenase Inhibitor 1

Catalog No. 10010468

CAS Registry No.: 928853-86-5
Formal Name: 4-methyl-2-(4-methylpiperazinyl)pyrimido[4,5-b]benzothiazine
Synonym: 15-LO Inhibitor 1
MF: C₁₆H₁₉N₅S
FW: 313.4
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in chloroform



Laboratory Procedures

For long term storage, we suggest that 15-lipoxygenase inhibitor 1 (15-LO inhibitor 1) be stored as supplied at -20°C. It should be stable for at least one year.

15-LO inhibitor 1 is supplied as a solution in chloroform. If aqueous stock solutions are required for biological experiments, they can best be prepared by diluting the organic solvent into aqueous buffers or isotonic saline. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Lipoxygenases (LOs) are non-heme iron-containing dioxygenases that catalyze the oxidation of polyunsaturated fatty acids to generate unsaturated fatty acid hydroperoxides.¹ The immediate products of 15-LO fatty acid oxidation act as mediators in inflammation, thrombosis, and cancer.² 15-LO inhibitor 1 is a heterocyclic pyrimidobenzothiazine compound that inhibits 15-LO with an IC₅₀ value of 18 μM.³ The inhibitor appears to act as an antioxidant, interfering with the redox cycle of 15-LO.³

References

1. Gaffney, B.J. Lipoxygenases: Structural principles and spectroscopy. *Annu. Rev. Biophys. Biomol. Struct.* **25**, 431-459 (1996).
2. Chanez, P., Bonnans, C., Chavis, C., *et al.* 15-Lipoxygenase. A janus enzyme? *Am. J. Respir. Cell Mol. Biol.* **27**, 655-658 (2002).
3. Bakavoli, M., Nikpour, M., Rahimizadeh, M., *et al.* Design and synthesis of pyrimido[4,5-b][1,4]benzothiazine derivatives, as potent 15-lipoxygenase inhibitors. *Bioorg. Med. Chem.* **15**, 2120-2126 (2007).

Related Products

15-Lipoxygenase (soybean P1) - Purified - Cat. No. 60700 • 15-Lipoxygenase (soybean P1) - Cat. No. 60712 • Ebselen - Cat. No. 70530 • Lipoxygenase Inhibitor Screening Assay Kit - Cat. No. 760700

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

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