

PRODUCT INFORMATION

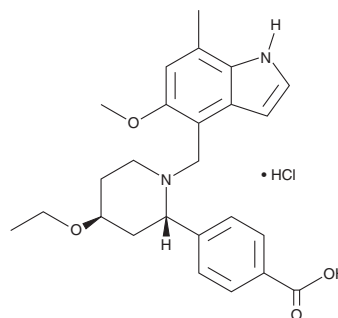


LNP023 (hydrochloride)

Item No. 37291

CAS Registry No.: 1646321-63-2
Formal Name: 4-[(2S,4S)-4-ethoxy-1-[(5-methoxy-7-methyl-1H-indol-4-yl)methyl]-2-piperidiny]-benzoic acid, monohydrochloride

Synonym: lptacopan
MF: C₂₅H₃₀N₂O₄ • HCl
FW: 459.0
Purity: ≥98%
UV/Vis.: λ_{max}: 225 nm
Supplied as: A 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

LNP023 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the LNP023 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. LNP023 (hydrochloride) is soluble in DMSO. It is also soluble in water. The solubility of LNP023 (hydrochloride) in water is approximately 50 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

LNP023 is a complement factor B (CFB) inhibitor (IC₅₀ = 10 nM).¹ It is selective for CFB over a panel of 41 proteases and 110 other enzymes, receptors, and ion channels (IC₅₀s = >30 μM for all).² LNP023 inhibits formation of the membrane attack complex induced by zymosan A (Item No. 21175) in isolated human whole blood (IC₅₀ = 150 nM).¹ It blocks hemolysis of erythrocytes isolated from patients with paroxysmal nocturnal hemoglobinuria (IC₅₀ = 400 nM), a disease characterized by immune-mediated red blood cell destruction, anemia, and blood clots. LNP023 (60 mg/kg twice per day) reduces levels of the alternative pathway cleavage products complement factor Ba, -C3d, and -C5a in the joints, levels of inflammatory cell infiltrates in joint tissues, and arthritis disease severity in a K/BxN serum transfer-induced mouse model of inflammatory arthritis. It also decreases proteinuria and serum levels of urea and creatine and prevents hair loss and kidney damage in an MRL-lpr mouse model of lupus nephritis when administered at a dose of 30 mg/kg per day.³

References

- Schubart, A., Anderson, K., Mainolfi, N., *et al.* Small-molecule factor B inhibitor for the treatment of complement-mediated diseases. *Proc. Natl. Acad. Sci. USA* **116**(16), 7926-7931 (2019).
- Mainolfi, N., Ehara, T., Karki, R.G., *et al.* Discovery of 4-((2S,4S)-4-Ethoxy-1-((5-methoxy-7-methyl-1H-indol-4-yl)methyl)piperidin-2-yl)benzoic acid (LNP023), a factor B inhibitor specifically designed to be applicable to treating a diverse array of complement mediated diseases. *J. Med. Chem.* **63**(11), 5697-5722 (2020).
- Chen, K., Deng, Y., Shang, S., *et al.* Complement factor B inhibitor LNP023 improves lupus nephritis in MRL/lpr mice. *Biomed. Pharmacother.* **153**:113433, (2022).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM