

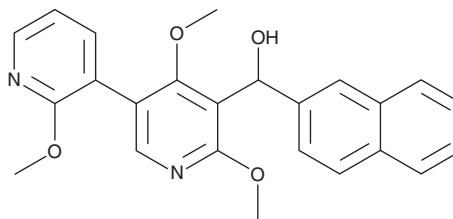
PRODUCT INFORMATION



Lipoxygenin

Item No. 26310

CAS Registry No.: 2247911-68-6
Formal Name: 2',4,6-trimethoxy- α -2-naphthalenyl-[3,3'-bipyridine]-5-methanol
MF: C₂₄H₂₂N₂O₄
FW: 402.4
Purity: \geq 98%
UV/Vis.: λ_{max} : 225 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 2 years



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

Laboratory Procedures

Lipoxygenin is supplied as a crystalline solid. A stock solution may be made by dissolving the lipoxygenin in the solvent of choice, which should be purged with an inert gas. Lipoxygenin is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of lipoxygenin in these solvents is approximately 30 mg/ml.

Lipoxygenin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, lipoxygenin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Lipoxygenin has a solubility of approximately 0.5 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

Lipoxygenin is an inhibitor of 5-lipoxygenase (5-LO) with an IC₅₀ value of 5 μ M for inhibition of 5-LO product synthesis in isolated human granulocytes stimulated with the cation ionophore A23187 (Item No. 22030).¹ It inhibits hedgehog-dependent signaling in Shh-LIGHT2 cells and TGF- β -, activin A-, bone morphogenic protein (BMP)-, or Wnt-dependent signaling in HEK293T cells (IC₅₀s = 9.3, 3.2, 8.2, 9.6, and 3.7 μ M, respectively, in luciferase reporter assays). Lipoxygenin (5 and 10 μ M) increases levels of troponin T (TnnT), a marker of cardiomyocyte differentiation, in human induced pluripotent stem cells (iPSCs) stimulated with BMP4 and the glycogen synthase kinase 3 (GSK3) inhibitor CHIR99021 (Item No. 13122).

Reference

1. Brand, S., Roy, S., Schröder, P., *et al.* Combined proteomic and *in silico* target identification reveal a role for 5-lipoxygenase in developmental signaling pathways. *Cell Chem. Biol.* **25(9)**, 1095-1106 (2018).

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.

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