

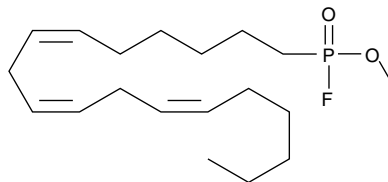
Product Information



Methyl γ -Linolenyl Fluorophosphonate

Item No. 70664

CAS Registry No.: 1370451-91-4
Formal Name: 6Z,9Z,12Z-octadecatrienyl-phosphonofluoridic acid, methyl ester
Synonym: M γ LnFP
MF: C₁₉H₃₄FO₂P
FW: 344.4
Purity: \geq 98%
Stability: \geq 1 year at -20°C
Supplied as: A solution in methyl acetate



Laboratory Procedures

For long term storage, we suggest that Methyl γ -Linolenyl Fluorophosphonate (M γ LnFP) be stored as supplied at -20°C. It should be stable for at least one year.

M γ LnFP is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of M γ LnFP in these solvents is approximately 3 mg/ml.

M γ LnFP is sparingly soluble in aqueous buffers. Therefore, further dilutions of the organic solvent solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Store aqueous solutions of M γ LnFP on ice and use within 12 hours of preparation. Although the aqueous solutions of M γ LnFP may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

M γ LnFP is an analog of methyl arachidonyl fluorophosphonate (MAFP; Item No. 70660), which has been widely studied as an inhibitor of phospholipases, FAAH, and as a CB receptor ligand.¹⁻³ The pharmacology of the γ -linolenyl analog of MAFP has not been completely investigated.

References

- Huang, Z., Liu, S., Street, I., *et al.* Methyl arachidonyl fluorophosphonate, a potent irreversible cPLA₂ inhibitor, blocks the mobilization of arachidonic acid in human platelets and neutrophils. *Mediators Inflamm.* **3**, 307-308 (1994).
- Deutsch, D.G., Omeir, R., Arreaza, G., *et al.* Methyl arachidonyl fluorophosphonate: A potent irreversible inhibitor of anandamide amidase. *Biochem. Pharmacol.* **53**, 255-260 (1997).
- Lio, Y.-C., Reynolds, L.J., Balsinde, J., *et al.* Irreversible inhibition of Ca²⁺-independent phospholipase A₂ by methyl arachidonyl fluorophosphonate. *Biochim. Biophys. Acta* **1302**, 55-60 (1996).

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