

# PRODUCT INFORMATION



## Methyl $\alpha$ -Linolenyl Fluorophosphonate

Item No. 70662

**Formal Name:** 9Z,12Z,15Z-octadecatrienyl-phosphonofluoridic acid, methyl ester

**Synonym:** MLnFP

**MF:** C<sub>19</sub>H<sub>34</sub>FO<sub>2</sub>P

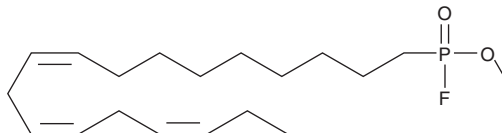
**FW:** 344.4

**Purity:**  $\geq$ 98%

**Supplied as:** A 10 mg/ml solution in methyl acetate

**Storage:** -20°C

**Stability:**  $\geq$ 4 years



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

### Laboratory Procedures

Methyl  $\alpha$ -linolenyl fluorophosphonate (MLnFP) 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 MLnFP in these solvents is approximately 6, 8, and 5 mg/ml, respectively.

MLnFP is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of MLnFP should be diluted with the aqueous buffer of choice. The solubility of MLnFP in PBS (pH 7.2) is approximately <0.5 mg/ml (colloidal suspension). 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 MLnFP on ice and use within 12 hours of preparation. Although the aqueous solutions of MLnFP may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

### Description

MLnFP 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.<sup>1-3</sup> The pharmacology of the  $\alpha$ -linolenyl analog of MAFP has not been completely investigated.

### References

1. Huang, Z., Liu, S., Street, I., *et al.* Methyl arachidonyl fluorophosphonate, a potent irreversible cPLA<sub>2</sub> inhibitor, blocks the mobilization of arachidonic acid in human platelets and neutrophils. *Mediators Inflamm.* **3**, 307-308 (1994).
2. 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).
3. Lio, Y.-C., Reynolds, L.J., Balsinde, J., *et al.* Irreversible inhibition of Ca<sup>2+</sup>-independent phospholipase A<sub>2</sub> by methyl arachidonyl fluorophosphonate. *Biochim. Biophys. Acta* **1302**, 55-60 (1996).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 04/07/2026

#### 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