

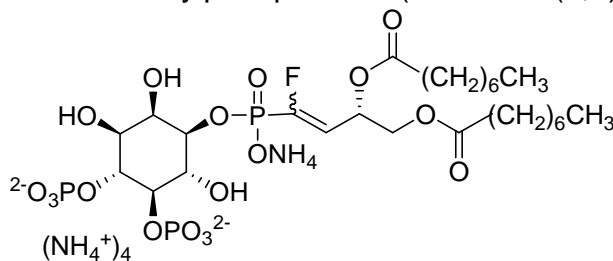


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Technical Data Sheet

For research use only
Not intended or approved for
diagnostic or therapeutic use.

Product Name: PtdIns(4,5)P₂ α-fluorovinylphosphonate (ms-PtdIns(4,5)P₂)



Catalog Number	MW (g/mol), NH ₄ ⁺ salt	Chemical Formula	Solubility
P-FV4508	845.7	C ₂₆ H ₆₃ FN ₅ O ₁₈ P ₃	H ₂ O, 1 mg/mL,

Storage: Phosphatidylinositol polyphosphates (PtdInsP_ns) and analogs are stable for at least one year when stored as a solid, protected from moisture, at -20 °C. Depending on the application, the lyophilized powders may be dissolved or suspended in water, buffers, or mixed solvents such as CHCl₃-MeOH and others employed for preparing mixed phospholipid liposomes. Plastic containers may be used for the storage of short-chain PtdInsP_ns; however, longer-chain PtdInsP_ns should be stored in glass containers to prevent material loss due to absorption to the vessel surface. Storage in basic buffers (pH > 9) will result in slow hydrolysis of the ester chains, and may cause phosphate or acyl migration to occur. Storage in acidic buffers (pH < 4) may cause decomposition or phosphate migration. After reconstitution, solutions of PtdInsP_ns should be flash frozen in liquid nitrogen and stored at -20 °C between uses. PtdInsP_ns are stable for at least three months when handled in this way. Repeated freeze/thaw cycles do not affect PtdInsP_ns. Do not store, reconstituted PtdInsP_ns, at 4 °C for more than 2-3 days.

Field of Interest: Metabolically stabilized PtdInsP_ns are resistant to enzymatic hydrolysis at a particular position and may demonstrate unique biological function due to the varied chemical structure compared to the natural analog. PtdIns(4,5)P₂ α-fluorovinylphosphonate is a long-lived analog of PtdIns(4,5)P₂ which will restore sensitivity of TRPM4 ion channels to Ca²⁺ activation. Ref: H. Zhang, *et al.* "Synthesis and Biological Activity of Phospholipase C-Resistant Analogues of Phosphatidylinositol 4,5-bisphosphate" *J. Am. Chem. Soc.* **2006**, *128*, 5642-5643.

Hazardous Properties and Cautions: No hazardous or toxic properties are known for this substance. PtdInsP_ns are not listed as a hazardous waste or as a Toxic Chemical subject to release reporting under the Emergency Planning and Community Right-to-Know Act. For solutions containing methanol or other solvents, see MSDS for Phosphoinositides in Solution available on request. PtdInsP_ns are not listed on the Chemical Inventory of the Toxic Substance Control Act, and is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

Warranty and Disclaimer: Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or refund purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.

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