

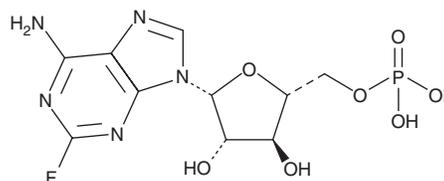
PRODUCT INFORMATION



Fludarabine Phosphate

Item No. 14251

CAS Registry No.: 75607-67-9
Formal Name: 2-fluoro-9-(5-O-phosphono-β-D-arabinofuranosyl)-9H-purin-6-amine
Synonyms: 2F-ara-AMP, 2-fluoro-ara-AMP, 2-fluoroadenine Arabinoside-5-phosphate, FAMP, NSC 312887, NSC 328002
MF: C₁₀H₁₃FN₅O₇P
FW: 365.2
Purity: ≥95%
UV/Vis.: λ_{max}: 261 nm
Supplied as: A crystalline 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

Fludarabine phosphate is supplied as a crystalline solid. Aqueous solutions of fludarabine phosphate can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of fludarabine phosphate in PBS, pH 7.2, is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Fludarabine phosphate is a prodrug form of fludarabine (Item No. 14128) and 2-fluoro-ara-ATP.¹ It is dephosphorylated *in vivo* to fludarabine and re-phosphorylated intracellularly to the active form, 2-fluoro-ara-ATP, which inhibits DNA synthesis.^{2,3} Fludarabine phosphate reduces viability of, and induces apoptosis in, N-Myc-overexpressing LASCPC-01 neuroendocrine prostate cancer cells (IC₅₀ = 17.67 μM).¹ It also reduces N-Myc protein levels when used at a concentration of 25 μM for at least 48 hours but does not reduce the levels of N-Myc mRNA. Fludarabine phosphate (120 mg/kg per day) reduces tumor volume in N-Myc-overexpressing 22Rv1-N-Myc and LASCPC-01, but not non-N-Myc-overexpressing 22Rv1, mouse xenograft models. Fludarabine phosphate is also an inhibitor of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) RNA-dependent RNA polymerase (RdRp; EC₅₀ = 0.93 μM).⁴ Formulations containing fludarabine phosphate have been used in the treatment of B cell chronic lymphocytic leukemia (CLL).

References

1. Elhasasna, H., Khan, R., Bhanumathy, K.K., *et al.* *Cells* **11**(14), 2246 (2022).
2. Mittelman, A., Savona, S., Puccio, C., *et al.* *Invest. New Drugs* **8**, S65-S67 (1990).
3. Plunkett, W., Chubb, S., Alexander, L., *et al.* *Cancer Res.* **40**(7), 2349-2355 (1980).
4. Zhao, J., Liu, Q., Yi, D., *et al.* *Antiviral Res.* **198**, 105254 (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.

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