

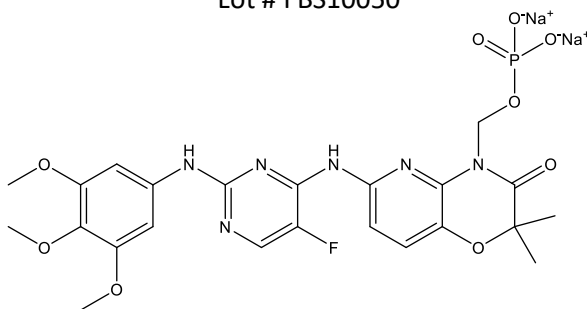
Catalog #10-4144

Fostamatinib disodium

CAS# 1025687-58-4

[6-[[5-Fluoro-2-(3,4,5-trimethoxyanilino)pyrimidin-4-yl]amino]-2,2-dimethyl-3-oxopyrido[3,2-b][1,4]oxazin-4-yl]methyl phosphate Disodium salt; R788

Lot # FBS10050



Fostamatinib is a prodrug of the spleen tyrosine kinase inhibitor (Syk) R406 and is approved for the treatment of chronic immune thrombocytopenia. It has demonstrated significant reduction in inflammatory mediators such as TNF α , IL-1, IL-6, and IL-8 in arthritis models.¹ Syk IC₅₀ = 41 nM – Fostamatinib also inhibits Flt3, Lyn, and Lck with similar potency in vitro but displays higher selectivity Syk in cellular assays.² Significantly inhibits LPS-induced inflammatory response via blocking STAT1/3 signaling.³ Fostamatinib restored myeloid homeostasis in severe COVID-19.⁴ Displayed synergistic effects with anti-PDL1 therapy against neuroblastoma.⁵ Fostamatinib induces metabolic reprogramming of acute myeloid leukemia stem cells.⁶

- 1) Bajpai *et al.* (2009), *Fostamatinib, a Syk inhibitor prodrug for the treatment of inflammatory diseases*; *iDrug* **12** 174
- 2) McAdoo and Tam (2011), *Fostamatinib Disodium*; *Drugs Future* **36** 273
- 3) Guo *et al.* (2024), *Fostamatinib, a Spleen Tyrosine Kinase Inhibitor, Exerts Anti-Inflammatory Activity via Inhibiting STAT1/3 Signaling Pathways*; *J. Inflamm. Res.* **17** 9757
- 4) Wigerblad *et al.* (2023), *Spleen tyrosine kinase inhibition restores myeloid homeostasis in COVID-19*; *Sci. Adv.* **9** eade8272
- 5) Rohila *et al.* (2023), *Targeting macrophage Syk enhances responses to immune checkpoint blockade and radiotherapy in high-risk neuroblastoma*; *Front. Immunol.* **14** 1148317
- 6) Polak *et al.* (2020), *SYK inhibition targets acute myeloid leukemia stem cells by blocking their oxidative metabolism*; *Cell Death Dis.* **11** 956

PHYSICAL DATA

Molecular Weight:	624.43
Molecular Formula:	C ₂₃ H ₂₄ FN ₆ O ₉ P·2Na
Purity:	>98% (HPLC)
	NMR: (Conforms)
Solubility:	DMSO (12 mg/mL with warming)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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Focus Biomolecules LLC 400 Davis Drive, Suite 600 Plymouth Meeting PA 19462

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