# PRODUCT INFORMATION

## AP-III-a4

*Item No. 19933*

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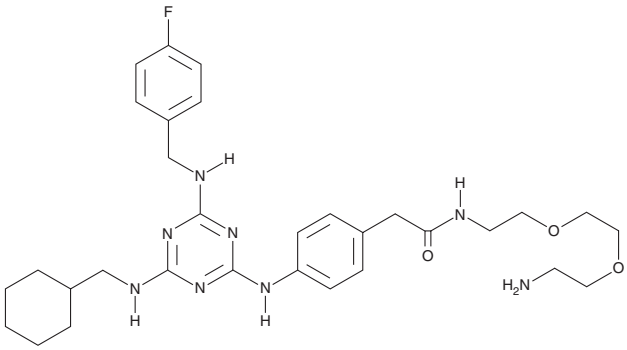
|---|---|
| **CAS Registry No.:** | 1177827-73-4 |
| **Formal Name:** | N-[2-[2-(2-aminoethoxy)ethoxy]ethyl]-4-[[4-[(cyclohexylmethyl)amino]-6-[[(4-fluorophenyl)methyl]amino]-1,3,5-triazin-2-yl]amino]-benzeneacetamide |
| **Synonym:** | ENOblock |
| **MF:** | $C_{31}H_{43}FN_8O_3$ |
| **FW:** | 594.7 |
| **Purity:** | ≥95% |
| **UV/Vis.:** | $\lambda_{max}$: 211, 268 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

AP-III-a4 is supplied as a crystalline solid. A stock solution may be made by dissolving the AP-III-a4 in the solvent of choice, which should be purged with an inert gas. AP-III-a4 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of AP-III-a4 in these solvents is approximately 30 mg/ml.

AP-III-a4 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AP-III-a4 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. AP-III-a4 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

AP-III-a4 is a small molecule enolase inhibitor ($IC_{50}$ = 0.576 µM) that inhibited cancer cell metastasis in an *in vivo* zebrafish cancer cell xenograft model.[1] It also reduced hyperglycemia and hyperlipidemia in C57BL/Ksj-*db/db* mice, a transgenic model of type 2 diabetes.[2] Another study found that AP-III-a4 did not directly block enolase activity *in vitro* and suggested the mechanism is indirect.[3]

### References


1. Jung, D.-W., Kim, W.-H., Park, S.-H., *et al.* A unique small molecule inhibitor of enolase clarifies its role in fundamental biological processes. *ACS Chem Biol.* **8(6)**, 1271-1282 (2013).
2. Cho, H., Um, J., Lee, J.-H., *et al.* ENOblock, a unique small molecule inhibitor of the non-glycolytic functions of enolase, alleviates the symptoms of type 2 diabetes. *Sci. Rep.* **7**, 44186 (2017).
3. Satani, N., Lin, Y.-H., Hammoudi, N., *et al.* ENOblock does not inhibit the activity of the glycolytic enzyme enolase. *PLoS One* **11(12)**, e0168739 (2016).





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