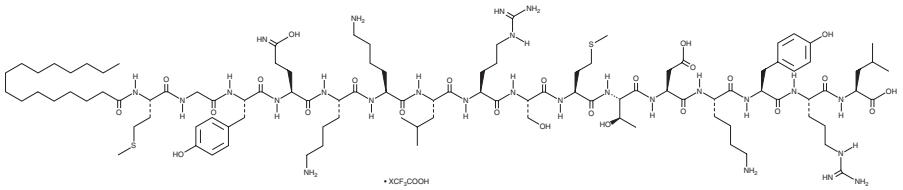
# PRODUCT INFORMATION

## ATI-2341 (trifluoroacetate salt)

*Item No. 30990*

**Formal Name:** N-(1-oxohexadecyl)-L-methionylglycyl-L-tyrosyl-L-glutaminyl-L-lysyl-L-lysyl-L-leucyl-L-arginyl-L-seryl-L-methionyl-L-threonyl-L-α-aspartyl-L-lysyl-L-tyrosyl-L-arginyl-L-leucine, trifluoroacetate salt



**MF:** $C_{104}H_{178}N_{26}O_{25}S_2 \bullet XCF_3COOH$

**FW:** 2,256.8

**Purity:** ≥98%

**UV/Vis.:** $\lambda_{max}$: 225 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

ATI-2341 (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the ATI-2341 (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. ATI-2341 (trifluoroacetate salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of ATI-2341 (trifluoroacetate salt) in these solvents is approximately 30 mg/ml.

### Description

ATI-2341 is a pepducin $G\alpha_i$-signaling biased agonist of chemokine (C-X-C motif) receptor 4 (CXCR4).[1] It induces dissociation of $G\alpha_i$ and $G\gamma_2$, indicating activation of $G\alpha_i$-signaling, with an $EC_{50}$ value of 0.21 µM in a bioluminescence resonance energy transfer (BRET) assay using HEK293T cells expressing CXCR4. ATI-2341 is selective for $G\alpha_i$ over $G\alpha_{13}$ ($EC_{50}$s = 0.53 and >1 µM, respectively, in BRET engagement assays) and is biased for $G\alpha_i$ engagement over β-arrestin-2, G protein-coupled receptor kinase 2 (GRK2), or GRK3 recruitment, exhibiting bias factor values of 24, 24.9, and 30, respectively. It induces chemotaxis of CCRF-CEM T cells, which endogenously express CXCR4, in a concentration-dependent manner. ATI-2341 (0.45 µmol/kg) increases peritoneal lavage fluid infiltration of polymorphonuclear leukocytes (PMNs) in mice.[2]

### References


1. Quoyer, J., Janz, J.M., Luo, J., *et al.* Pepducin targeting the C-X-C chemokine receptor type 4 acts as a biased agonist favoring activation of the inhibitory G protein. *Proc. Natl. Acad. Sci. USA* **110(52)**, 5088-5097 (2013).
2. Tchernychev, B., Ren, Y., Sachdev, P., *et al.* Discovery of a CXCR4 agonist pepducin that mobilizes bone marrow hematopoietic cells. *Proc. Natl. Acad. Sci. USA* **107(51)**, 22255-22259 (2010).





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