

PRODUCT INFORMATION



ATI-2341 (trifluoroacetate salt)

Item No. 30990

Formal Name: N-(1-oxohexadecyl)-L-methionylglycyl-L-tyrosyl-L-glutaminy-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: C₁₀₄H₁₇₈N₂₆O₂₅S₂ • XCF₃COOH

FW: 2,256.8

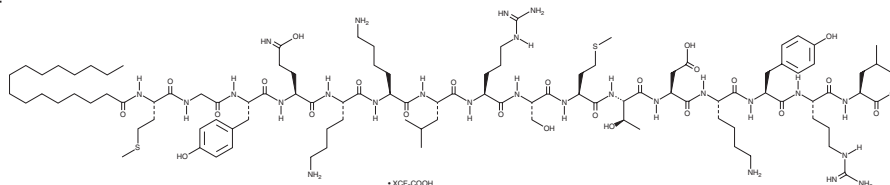
Purity: $\geq 98\%$

UV/Vis.: λ_{\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 α_i -signaling biased agonist of chemokine (C-X-C motif) receptor 4 (CXCR4).¹ It induces dissociation of G α_i and G γ_2 , indicating activation of G α_i -signaling, with an EC₅₀ value of 0.21 μ M in a bioluminescence resonance energy transfer (BRET) assay using HEK293T cells expressing CXCR4. ATI-2341 is selective for G α_i over G α_{13} (EC₅₀s = 0.53 and >1 μ M, respectively, in BRET engagement assays) and is biased for G α_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 μ mol/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).

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.

WARRANTY AND LIMITATION OF REMEDY

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