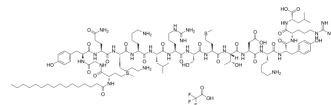


ATI-2341 TFA

Cat. No.:	HY-P0172A
Molecular Formula:	C ₁₀₆ H ₁₇₉ F ₃ N ₂₆ O ₂₇ S ₂
Molecular Weight:	2370.84
Sequence Shortening:	1-Oxohexadecyl-MGYQKKLRSMTDKYRL
Target:	CXCR
Pathway:	GPCR/G Protein; Immunology/Inflammation
Storage:	Sealed storage, away from moisture Powder -80°C 2 years -20°C 1 year



* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (21.09 mM; Need ultrasonic)																					
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent</th> <th rowspan="2">Mass</th> <th colspan="3">Concentration</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Preparing Stock Solutions</td> <td>1 mM</td> <td>0.4218 mL</td> <td>2.1090 mL</td> <td>4.2179 mL</td> </tr> <tr> <td>5 mM</td> <td>0.0844 mL</td> <td>0.4218 mL</td> <td>0.8436 mL</td> </tr> <tr> <td>10 mM</td> <td>0.0422 mL</td> <td>0.2109 mL</td> <td>0.4218 mL</td> </tr> </tbody> </table>	Solvent	Mass	Concentration			1 mg	5 mg	10 mg	Preparing Stock Solutions	1 mM	0.4218 mL	2.1090 mL	4.2179 mL	5 mM	0.0844 mL	0.4218 mL	0.8436 mL	10 mM	0.0422 mL	0.2109 mL	0.4218 mL
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	Please refer to the solubility information to select the appropriate solvent.																					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (1.05 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (1.05 mM); Clear solution 																					

BIOLOGICAL ACTIVITY

Description	ATI-2341 is a potent and functionally selective allosteric agonist of C-X-C chemokine receptor type 4 (CXCR4), which functions as a biased ligand, favoring G _{ai} activation over G _{α13} . ATI-2341 activates the inhibitory heterotrimeric G protein (G _i) to promote inhibition of cAMP production and induce calcium mobilization. ATI-2341 is a potent and efficacious mobilizer of bone marrow polymorphonuclear neutrophils (PMNs) and hematopoietic stem and progenitor cells (HSPCs) ^[1] [2].
In Vitro	CXCR4 ^[1] MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Int Immunopharmacol. 2022 Sep 30;112:109288.

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REFERENCES

[1]. Quoyer 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 U S A. 2013 Dec 24;110(52):E5088-97.

[2]. Tchernychev B, et al. Discovery of a CXCR4 agonist pepducin that mobilizes bone marrow hematopoietic cells. Proc Natl Acad Sci U S A. 2010 Dec 21;107(51):22255-9.

Caution: Product has not been fully validated for medical applications. For research use only.

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