

AMY-101 acetate

Cat. No.:	HY-P1717B		
Molecular Formula:	C ₈₅ H ₁₂₁ N ₂₃ O ₂₀ S ₂		
Molecular Weight:	1849.16		
Sequence:	Tyr-Ile-Cys-Val-{Trp(Me)}-Gln-Asp-Trp-{Sar}-Ala-His-Arg-Cys-{N(Me)Ile}-NH ₂ (Disulfide bridge:Cys3-Cys13) <small>YICV-{Trp(Me)}-QDW-{Sar}-AHRC-{N(Me)Ile}-NH₂ (Disulfide bridge:Cys3-Cys13) (acetate salt)</small>		
Sequence Shortening:	YICV-{Trp(Me)}-QDW-{Sar}-AHRC-{N(Me)Ile}-NH ₂ (Disulfide bridge:Cys3-Cys13)		
Target:	Complement System; SARS-CoV		
Pathway:	Immunology/Inflammation; Anti-infection		
Storage:	Protect from light		
	Powder	-80°C	2 years
		-20°C	1 year
	* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)		

SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (54.08 mM; Need ultrasonic)
 H₂O : < 0.1 mg/mL (insoluble)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	0.5408 mL	2.7039 mL	5.4079 mL
	5 mM	0.1082 mL	0.5408 mL	1.0816 mL
	10 mM	0.0541 mL	0.2704 mL	0.5408 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

AMY-101 acetate (Cp40 acetate), a peptidic inhibitor of the central complement component C3 (K_D = 0.5 nM), inhibits naturally occurring periodontitis in non-human primates (NHPs). AMY-101 acetate (Cp40 acetate) exhibits a favorable anti-inflammatory activity in models with COVID-19 severe pneumonia with systemic hyper inflammation^{[1][2]}.

IC₅₀ & Target

KD: 0.5 nM (C3)^[1].

In Vivo

AMY-101 can improve the periodontal condition of NHPs with natural chronic periodontitis^[1].
 AMY-101 can induce a long-lasting anti-inflammatory effect^[1].
 AMY-101 (4 mg/kg bodyweight, subcutaneous injection. once per 24 hr for a total of 28 days) causes a significant and long-lasting reduction in PPD, an index that measures tissue destruction^[1].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Fifteen adult male cynomolgus monkeys (<i>Macaca fascicularis</i>) (7-15 years old; 5.0-7.6 kg body weight) ^[1] .
Dosage:	0.1 mg/site; 50 µL of 2 mg/mL solution.
Administration:	Injected locally. (Either three times per week or once a week for 6 weeks followed by a 6-week follow-up period without treatment.)
Result:	Does not cause irritation in healthy gingiva.

CUSTOMER VALIDATION

- Nucleic Acids Res. 2021 Jan 8;49(D1):D11113-D11121.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Kajikawa T, et al. Safety and Efficacy of the Complement Inhibitor AMY-101 in a Natural Model of Periodontitis in Non-human Primates. *Mol Ther Methods Clin Dev.* 2017 Aug 18;6:207-215.

[2]. Mastaglio S, et al. The first case of COVID-19 treated with the complement C3 inhibitor AMY-101. *Clin Immunol.* 2020 Apr 29:108450.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA