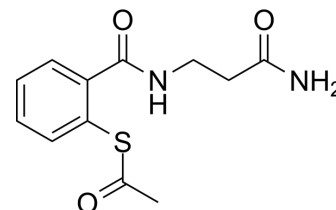


SAMT-247

Cat. No.:	HY-102077
CAS No.:	850715-59-2
Molecular Formula:	C ₁₂ H ₁₄ N ₂ O ₃ S
Molecular Weight:	266.32
Target:	HIV
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	SAMT-247 is a microbicide that selectively inactivate the viral nucleocapsid protein NCp7, causing zinc ejection and preventing RNA encapsidation. SAMT-247 shows good antiviral activity ^{[1][2]} .
IC₅₀ & Target	HIV-1 _{III} B 0.6 μM (EC50)
In Vitro	SAMT-247 covalently modifies the Gag polyprotein ^[2] . SAMT-247 shows antiviral activity with an EC ₅₀ of 0.6 μM in CEM-SS cells infected with HIV-1 _{III} B. SAMT-247 shows low cellular toxicity (TC ₅₀ > 100 μM) ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	A 1% gel formulation of SAMT-247 protected five of six rhesus macaques from vaginal challenge with a CCR5 (R5) -tropic SHIV ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Helmold Hait S, et al. An SAMT-247 Microbicide Provides Potent Protection against Intravaginal Simian Immunodeficiency Virus Infection of Rhesus Macaques, whereas an Added Vaccine Component Elicits Mixed Outcomes. *J Immunol.* 2020 Jun 15;204(12):3315-3328.

[2]. Miller Jenkins LM, et al. Small-molecule inactivation of HIV-1 NCp7 by repetitive intracellular acyl transfer. *Nat Chem Biol.* 2010 Dec;6(12):887-9.

[3]. Cheng-Mayer C, et al. Delay of simian human immunodeficiency virus infection and control of viral replication in vaccinated macaques challenged in the presence of a topical microbicide. *AIDS.* 2011 Sep 24;25(15):1833-41.

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

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