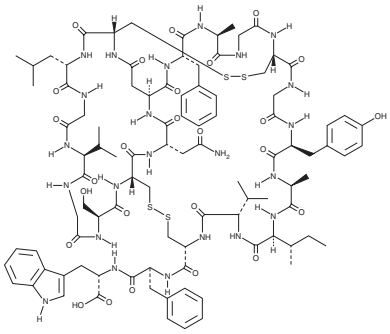
PRODUCT INFORMATION

Siamycin I

Item No. 27783



CAS Registry No.:	164802-68-0
Synonyms:	BMY 29304, FR 901724
MF:	$C_{97}H_{131}N_{23}O_{26}S_4$
FW:	2,163.5
Purity:	≥85%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Bacterium/*Streptomyces* sp.

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Siamycin I is supplied as a solid. A stock solution may be made by dissolving the siamycin I in the solvent of choice, which should be purged with an inert gas. Siamycin I is soluble in organic solvents such as methanol and DMSO.

Description

Siamycin I is a tricyclic peptide originally isolated from *Streptomyces* and has antiviral and antibacterial activities.[1,2] It is active against laboratory strains and clinical isolates of HIV-1 (ED_{50}s = 0.05-0.45 and 0.89-5.7 µM, respectively), as well as the CBL-20 strain of HIV-2 (ED_{50} = 0.45 µM), *in vitro*.[1] Siamycin I inhibits HIV-induced fusion of C8166 T cells with HIV-1-infected CEM-SS cells with an ED_{50} value of 0.08 µM. It is also active against *B. subtilis*, *M. luteus*, and *S. aureus* (MICs = 1.6-6.3 µg/ml).[2] Siamycin I inhibits autophosphorylation of the *E. faecalis* quorum sensing kinase FsrC induced by gelatinase biosynthesis-activating pheromone (GBAP).[3]

References

1. Lin, P.F., Samanta, H., Bechtold, C.M., *et al.* Characterization of siamycin I, a human immunodeficiency virus fusion inhibitor. *Antimicrob. Agents Chemother.* **40(1),** 133-138 (1996).
2. Tsunakawa, M., Hu, S.L., Hoshino, Y., *et al.* Siamycins I and II, new anti-HIV peptides: I. Fermentation, isolation, biological activity and initial characterization. *J. Antibiot. (Tokyo)* **48(5),** 433-434 (1995).
3. Ma, P., Nishiguchi, K., Yuille, H.M., *et al.* Anti-HIV siamycin I directly inhibits autophosphorylation activity of the bacterial FsrC quorum sensor and other ATP-dependent enzyme activities. *FEBS Lett.* **585(17),** 2660-2664 (2011).

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