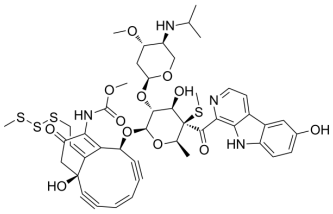
Shishijimicin A

Cat. No.:	HY-N10537
CAS No.:	503860-50-2
Molecular Formula:	$C_{46}H_{52}N_4O_{12}S_4$
Molecular Weight:	981.18
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Shishijimicin A is a novel antitumor agent found from the Ascidian Didemnum proliferum. Shishijimicin A shows anti-tumor activity with highly potent cytotoxicities[1][2]. Shishijimicin A is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAc) with molecules containing Azide groups.

In Vitro

Shishijimicin A (compound 1) (0.47-2.0 pg/mL) shows high cytotoxicity for 3Y1, Hela and P388 cells[1].
Shishijimicin A (0.13-1000 nM) shows high cytotoxicity for MES SA, MES SA DX and HEK 293T cells[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cytotoxicity Assay[1]

Cell Line:	3Y1, Hela and P388 cells
Concentration:	0.47-2.0 pg/mL
Incubation Time:	
Result:	Showed IC_{50} values of 2.0, 1.8, and 0.47 pg/mL for 3Y1, Hela and P388 cells, respectively.

Cell Cytotoxicity Assay[2]

Cell Line:	MES SA, MES SA DX and HEK 293T cells
Concentration:	0.13-1000 nM
Incubation Time:	
Result:	Showed IC_{50} values of 0.13, >1000, and 0.016 nM for MES SA, MES SA DX and HEK 293T cells, respectively.

REFERENCES

[1]. Naoya Oku, et al. Shishijimicins A-C, novel enediyne antitumor antibiotics from the ascidian Didemnum proliferum(1). J Am Chem Soc. 2003 Feb 26;125(8):2044-5.

[2]. K C Nicolaou, et al. Streamlined Total Synthesis of Shishijimicin A and Its Application to the Design, Synthesis, and Biological Evaluation of Analogues thereof and

Practical Syntheses of PhthNSSMe and Related Sulfenylating Reagents. J Am Chem Soc. 2018 Sep 26;140(38):12120-12136.

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

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