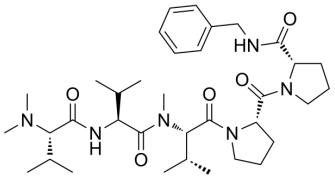
Cemadotin

Cat. No.:	HY-13589
CAS No.:	159776-69-9
Molecular Formula:	$C_{35}H_{56}N_6O_5$
Molecular Weight:	640.86
Target:	Microtubule/Tubulin
Pathway:	Cell Cycle/DNA Damage; Cytoskeleton
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Cemadotin (LU103793) is an analogue of Dolastatin 15 (HY-P1126) which is naturally occurring cytotoxic peptides. Cemadotin blocks cells at mitosis, and exhibits K_i value of 1 μM for inhibiting tubulin. Cemadotin can be used to research anticancer[1].
IC_{50} & Target	K_i: 1 μM (tubulin)[1]
In Vitro	Cemadotin (0-100 μM; 35 min) inhibits polymerization dose-dependently in Tubulin-treated Strongylocentrotus purpuratus [1]. Cemadotin (0-1000 nM) preferentially suppresses the rate and extent of growing excursions of tubulin, and suppression is dependent upon the drug concentration[1]. Cemadotin (0-1 μM) markedly increases the rescue frequency but had little effect on the catastrophe frequency[1]. Cemadotin (400 pM~300 nM; 72 h) inhibits cancer cells HEK 293, F9 and HL60[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[2]

Cell Line:	HEK 293, F9 and HL60
Concentration:	400 pM~300 nM
Incubation Time:	72 h
Result:	Exhibited cytotoxicity against HEK 293, F9 and HL60 with IC_{50}s of 0.7 nM, 14.8 nM and 0.5 nM, respectively.

REFERENCES

[1]. Jordan MA, et al. Suppression of microtubule dynamics by binding of cemadotin to tubulin: possible mechanism for its antitumor action. Biochemistry. 1998 Dec 15;37(50):17571-8.

[2]. Bernardes GJ, et al. A traceless vascular-targeting antibody-drug conjugate for cancer therapy. Angew Chem Int Ed Engl. 2012 Jan 23;51(4):941-4.

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

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