Lanreotide

Cat. No.:	HY-P1959
CAS No.:	108736-35-2
Molecular Formula:	$C_{54}H_{69}N_{11}O_{10}S_2$
Molecular Weight:	1096.32
Sequence Shortening:	{d-2nal}-CY-{d-Trp}-KVCT-NH2 (Disulfide bridge: Cys2-Cys7)
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description

Lanreotide (BIM 23014) is a somatostatin analogue with antineoplastic activity. Lanreotide can be used for the research of carcinoid syndrome[1][2].

In Vitro

Lanreotide (BIM 23014) (100 nM; 0-48 h) enhanced radiation-induced apoptosis[1].
Lanreotide results in a dose-dependent decrease in GH3 cell colony forming units. Lanreotide at concentrations of 1, 10, 100, and 1000 nM results in cell survival rates of 75, 56, 39 and 27% respectively. The IC_{50} is 57 nM[1].
Lanreotide inhibits GH-secreting pituitary adenoma cell proliferation and hormone release in vitro[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Apoptosis Analysis[1]

Cell Line:	GH3
Concentration:	100 nM
Incubation Time:	48 h, 24 h, or immediately (0 h) before radiation
Result:	Increased apoptotic sub-G1 proportion compared with radiation alone.

In Vivo

Lanreotide (2.5-10mg/kg; s.c.; daily for 5 days) results in tumor growth inhibition[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male nude mice, 8 weeks old and 20–25 g in body weight (GH3 tumor-bearing nude mice) [1]
Dosage:	2.5, 5, 10 mg/kg
Administration:	Subcutaneous; daily for 5 days
Result:	Produced tumor growth inhibition.

REFERENCES

[1]. Ning S, et al. Lanreotide promotes apoptosis and is not radioprotective in GH3 cells.Endocr Relat Cancer. 2009 Sep;16(3):1045-55.

[2]. Florio T, et al. Characterization of the intracellular mechanisms mediating somatostatin and lanreotide inhibition of DNA synthesis and growth hormone release from dispersed human GH-secreting pituitary adenoma cells in vitro.Clin Endocrinol (Oxf). 2003 Jul;59(1):115-28.

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