

Splenopentin diacetate

Cat. No.:	HY-P0085
CAS No.:	105184-37-0
Molecular Formula:	C ₃₅ H ₅₉ N ₉ O ₁₃
Molecular Weight:	813.9
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Splenopentin diacetate is a synthetic immunomodulating pentapeptide corresponding to the residues 32-36 of the splenic hormone splenin. Splenopentin diacetate influences both early T and B cell differentiation, to increase the number of antibody-forming cells in mice after gamma irradiation ^{[1][2]} .	
In Vitro	Splenopentin (1-100 µM) augments human NK cells and has no cytotoxicity ^[2] . Splenopentin (0.1 ng/mL-10 µg/mL; 3 h) induces phenotypic differentiation of both T- and B-cell precursor cells ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	Splenopentin (1 mg/kg; i.p. three times a week for 7-90 d) accelerates Langerhans cell recruitment and leads to pretreatment levels of Langerhans cell (LC) density in the skin of mice ^[4] . Splenopentin (0.01-100 µg per mouse; i.p.) has no demonstrable effect on neuromuscular transmission of mice ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Female Balb/c/BLN mice were injected Cyclophosphamide or Dexamethasone for 5 consecutive days ^[4]
	Dosage:	1 mg/kg
	Administration:	i.p. three times a week for 7-90 days
	Result:	Reached the normal number of epidermal LCs at 28 days after the beginning of Cyclophosphamide treatment. Accelerated restoration process and reached the normal LC density in the skin after 70 days in Dexamethasone treatment groups.

REFERENCES

- [1]. Singh VK, et, al. Thymopentin and splenopentin as immunomodulators. Current status. Immunol Res. 1998;17(3):345-68.
- [2]. Rastogi A, et, al. Augmentation of human natural killer cells by splenopentin analogs. FEBS Lett. 1993 Feb 8;317(1-2):93-5.
- [3]. Audhya T, et, al. Contrasting biological activities of thymopietin and splenin, two closely related polypeptide products of thymus and spleen. Proc Natl Acad Sci U S A. 1984 May;81(9):2847-9.

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

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