Product Data Sheet

Threonyl-seryl-lysine

Cat. No.: HY-114707 CAS No.: 71730-64-8 Molecular Formula: $C_{13}H_{26}N_4O_6$ Molecular Weight: 334.37

Target: GnRH Receptor
Pathway: GPCR/G Protein

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

OH OHO NH2

BIOLOGICAL ACTIVITY

DescriptionThreonyl-seryl-lysine, a bovine pineal antireproductive tripeptide, has antigonadotropic activity. Threonyl-seryl-lysine binds to luteinizing hormone-releasing hormone (LHRH) at a site comprised of LHRH 2-5^{[1][3]}.

In Vivo Threonyl-seryl-lysine (175 ng, i.p.) reduces the 5-day compensatory ovarian hypertrophy in unilaterally ovariectomized (UO)

 $mice^{\lfloor 1 \rfloor}$.

Threonyl-seryl-lysine (1 or 5 μg, i.p.) delays vaginal opening time in female Charles River CD rats^[2].

Threonyl-seryl-lysine (1 and 10 μ g, s.c., for 15 days) increases the weight of ovaries and of adrenals in mice^[4].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Unilaterally ovariectomized (UO) mice
Dosage:	175 ng
Administration:	Intraperitoneal injection (i.p.)
Result:	Reduced serum follicle stimulating hormone (FSH) in UO mice.

REFERENCES

- [1]. Orts RJ, et al. Inhibitory properties of a bovine pineal tripeptide, threonylseryllysine, on serum follicle-stimulating hormone. Neuroendocrinology. 1980 Aug;31(2):92-5.
- $\hbox{$[2]$. Benson B. Bovine pineal tripeptide threonylseryllysine retards puberty in female rats. J Pineal Res. 1989; 6(4):351-7.}$
- [3]. Root-Bernstein RS, et al. Bovine pineal antireproductive tripeptide binds to luteinizing hormone-releasing hormone: a model for peptide modulation by sequence specific peptide interactions? Brain Res Bull. 1986 Oct;17(4):519-28.
- [4]. Vaughan M K, et al. Influence of Thr-Ser-Lys (TSL), a recently isolated pineal peptide, on ovarian and uterine weights and estrous cycles in mice, hamsters and rats. Pineal function (Mathews CD, Seamark RF, eds.), 1981: 165-172.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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