

Product Data Sheet

LH-RH (7-10)

Pathway:

Cat. No.: HY-P3674

CAS No.: 38482-71-2Molecular Formula: $C_{19}H_{36}N_8O_4$ Molecular Weight: 440.54Sequence Shortening: LRPG-NH2

Target: GnRH Receptor

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

Analysis.

GPCR/G Protein

BIOLOGICAL ACTIVITY

DescriptionLH-RH (7-10) is a tetrapeptide, one of major degradation products of luteinising-hormone releasing hormone (LHRH) via pituitary and hypothalamus. LH-RH (7-10) produced in macrophages, type I-like and type II pneumocytes^[3].

In Vitro The formation of LHRH 4-10, LHRH 7-10, and LHRH 6-10Co-incubation are inhibited by known enzyme inhibitors including Captopril (HY-B0368) (an ACE inhibitor), Thiorphan (HY-W013375) (an EP24.11 inhibitor), and Ethylenediaminetetraacetic

acid (HY-Y0682) (an EP24.15 inhibitor)[3].

 $LH-RH~(7-10)~inhibits~the~binding~of~^{125}I-labeled~GnRH~to~monoclonal~antibody~P_{8}16_{62}~with~an~IC_{50}~value~of~1.7~nM^{[4]}. \\$

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

In Vivo LH-RH (7-10) (i.v.) increases esterase activity in plasma kinin system in rats^[1].

LH-RH (7-10) (ntracarotid infusion i.v.; single dose) stimulates a significant increase in plasma LH concentration in the iugular vein $^{[2]}$.

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Animal Model:	New Zealand White Rabbit ^[2]
Dosage:	100, 500 and 2500 ng dissolved in 0-9% (w/v) NaCl solution and diluted
Administration:	Ntracarotid infusion; infused with a constant volume of 7-5 mL per 30 min
Result:	Caused LH release in the female rabbit during various reproductive conditions.

REFERENCES

- [1]. Mandzhikyan, et al. Effect of luteinizing hormone releasing hormone fragments on the rat plasma kinin system. Russian. 1979; 69(2):115-118.
- [2]. Carlson JC, et al. The effect of LH-RH administration on LH release in the female rabbit. J Reprod Fertil. 1979 May;56(1):175-80.
- [3]. Yang X, et al. Enzymatic degradation of luteinizing hormone releasing hormone (LHRH)/[D-Ala6]-LHRH in lung pneumocytes. Pharm Res. 1998 Sep;15(9):1480-4.
- [4]. Talwar GP, et al. Bioeffective monoclonal antibody against the decapeptide gonadotropin-releasing hormone: reacting determinant and action on ovulation and estrus suppression. Proc Natl Acad Sci U S A. 1985 Feb;82(4):1228-31.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA

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