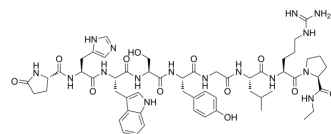


Fertirelin

Cat. No.: HY-P0053
CAS No.: 38234-21-8
Molecular Formula: C₅₅H₇₆N₁₆O₁₂
Molecular Weight: 1153.29
Sequence: {Glp}-His-Trp-Ser-Tyr-Gly-Leu-Arg-Pro
Sequence Shortening: {Glp}-HWSYGLRP
Target: GnRH Receptor
Pathway: GPCR/G Protein
Storage: Sealed storage, away from moisture
 Powder -80°C 2 years
 -20°C 1 year



* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (86.71 mM)
 H₂O : 100 mg/mL (86.71 mM; Need ultrasonic)
 * "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	0.8671 mL	4.3354 mL	8.6708 mL
	5 mM	0.1734 mL	0.8671 mL	1.7342 mL
	10 mM	0.0867 mL	0.4335 mL	0.8671 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: PBS
Solubility: 50 mg/mL (43.35 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (2.17 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (2.17 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (2.17 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Fertirelin is a GnRH and LH-RH analogue; it also becomes the treatment choice for reversing cow follicular cysts.

In Vivo

Fertirelin, an analog of GnRH 2.5 to 10 times more potent than native GnRH, has become the treatment of choice for reversing follicular cysts^[1]. Administration of high doses of Fertirelin is found to reduce superovulatory responses^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration ^[2]

Mice^[2]

Nulliparous female mice weighed 25-28 g (8-9 weeks) are used throughout the study. The mice are ddY strain and specific pathogen-free. As ovulation can be induced in mice at any time with administration of human chorionic gonadotrophin (hCG), 5.0 IU of hCG is injected subcutaneously into each mouse at 17:00, irrespective of the stage of the estrus cycle. This day is designated as Day 0. Nine groups are established according to the dose of Fertirelin ranging from 0.001 to 1.0 µg, and the administration are carried out at 22:00 on Day 0 and at 2:00, 6:00, 10:00 and 14:00 on Day 1^[2].

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

REFERENCES

[1]. Nakao T et al. Effect of fenprostalene 14 days after fertirelin treatment on intervals from treatment to conception in cows with follicular cysts diagnosed by milk progesterone test. J Vet Med Sci. 1993 Apr;55(2):207-10.

[2]. Nariai K, et al. Optimum dose of LH-RH analogue Fertirelin Acetate for the induction of superovulation in mice. Exp Anim. 2005 Jan;54(1):97-9.

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

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