

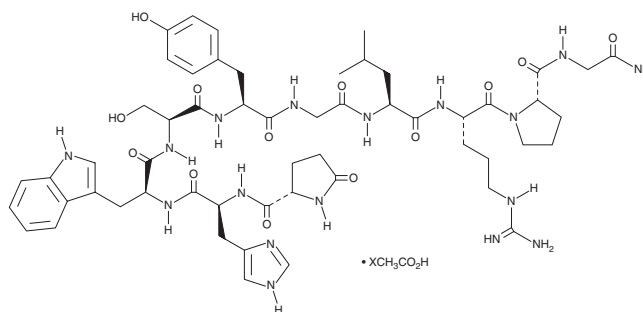
PRODUCT INFORMATION



Gonadorelin (acetate)

Item No. 24240

CAS Registry No.: 34973-08-5
Formal Name: luteinizing hormone-releasing factor (swine), acetate
MF: $C_{55}H_{75}N_{17}O_{13} \cdot XC_2H_4O_2$
FW: 1,182.3
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 221, 276 nm
Supplied as: A crystalline solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Gonadorelin (acetate) is supplied as a crystalline solid. A stock solution may be made by dissolving the gonadorelin (acetate) in the solvent of choice, which should be purged with an inert gas. Gonadorelin (acetate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of gonadorelin (acetate) in ethanol is approximately 0.25 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of gonadorelin (acetate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of gonadorelin (acetate) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Gonadorelin is a tropic hormone and agonist of the gonadotropin-releasing hormone receptor (GNRHR; $K_i = 13$ nM in CHO cells expressing the human receptor).¹ It stimulates luteinizing hormone (LH) and follicle-stimulating hormone (FSH) release from rat anterior pituitary cultures when administered at a dose of 0.1 μg .² It also stimulates LH release from bovine anterior pituitary cultures at a concentration of 1 μM .³ *In vivo*, gonadorelin induces ovulation in rats pretreated with fluphenazine (Item No. 23555; $ED_{50} = 610.3$ ng/kg).⁴ Formulations containing gonadorelin have been used as diagnostic agents to assess pituitary gland function.

References

1. Nederpelt, I., Georgi, V., Schiele, F., et al. Characterization of 12 GnRH peptide agonists - a kinetic perspective. *Br. J. Pharmacol.* **173**(1), 128-141 (2016).
2. Yanaihara, N., Yanaihara, C., Sakagami, M., et al. Synthesis and biological evaluation of LH and FSH releasing hormone and its analogs. *J. Med. Chem.* **16**(4), 373-377 (1973).
3. Bellmann, A., Schneider, F., Kanitz, W., et al. Effect of GnRH and its antagonist (Antarelix) on LH release from cultured bovine anterior pituitary cells. *Acta Vet. Hung.* **50**(1), 79-92 (2002).
4. Banik, U.K. and Givner, M.L. Simple potency test for LH-RH preparations. *J. Biol. Stand.* **8**(2), 151-156 (1980).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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