



Product Information

Anti-Gonadotropin Releasing Hormone (GnRH)

Developed in Rabbit
Affinity Isolated Antibody

Product Number **G 8294**

Product Description

Anti-Gonadotropin Releasing Hormone (GnRH) was developed in rabbit using the synthetic peptide pyroEHWSYGLRP(G-NH₂) corresponding to human GnRH as the immunogen. This sequence is completely conserved in rat and tree shrew, and is 78% conserved in zebrafish. The antibody was affinity purified.

Anti-Gonadotropin Releasing Hormone, (GnRH) recognizes GnRH in mouse embryo brain tissue, staining neurons in the organum vasculosum of the lamina terminalis (OVLT).

Gonadotropin releasing hormone (GnRH), also known as luteinizing hormone releasing hormone (LHRH), is a key molecule in the regulation of reproduction in vertebrates. GnRH, a decapeptide, is produced by neurons in the medial basal hypothalamus (MBH) and secreted in a pulsatile manner into the cardiovascular system.¹ The frequency and amplitude of GnRH pulses determine secretion of follicle stimulating hormone (FSH) and luteinizing hormone (LH) from the pituitary. Higher frequencies (greater than one pulse per hour) stimulate LH secretion, while lower frequencies stimulate FSH secretion. The generation of GnRH pulses is effected by numerous stimuli, such as neural, hormonal, and environmental. Therefore, behavioral and physiological conditions such as sleep, exercise, and stress can affect the GnRH pulses and cause a disruption of the normal cycle.

Recent studies show that GnRH may also have a role in mediating cancers of the reproductive system.² GnRH analogs have been shown to inhibit the growth of human uterine leiomyoma cells by suppressing proliferation and inducing apoptosis.³ GnRH analogs have been used to treat a wide variety of reproductive cancers, including prostate cancer, although the side effects of using such compounds are often quite severe.⁴

Reagent

Anti-Gonadotropin Releasing Hormone (GnRH) is supplied as 100 µg of affinity isolated antibody in phosphate buffered saline containing 1.0 mg/ml bovine serum albumin and 0.05 % sodium azide as preservative.

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling.

Storage/Stability

Store at -20 °C. For extended storage, freeze in working aliquots. Avoid repeated freezing and thawing. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

The recommended working dilution is 1 µg/ml for immunohistochemistry. In immunohistochemical procedures, 4% paraformaldehyde is recommended as a preservative.

Note: In order to obtain best results and assay sensitivities of different techniques and preparations, determination of optimal working dilutions by titration test is recommended.

References

1. Norwitz, E.R., Endocrinology, **143**, 985-997 (2002).
2. Moretti, R.M., et al., Endocr. Relat. Cancer, **10**, 161-167 (2003).
3. Bifulco, G., et al., Mol. Hum. Reprod., **10**, 43-48 (2004).
4. Marks, L.S., Urology, **62**, 36-42 (2003).

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