

# GnRHR (GRX-5): sc-69845

## BACKGROUND

Gonadotropin-releasing hormone (GnRH) is released in a pulsatile manner that varies with the reproductive cycle. This hypothalamic hormone is transported to the pituitary, where it binds to specific receptors and regulates the synthesis and release of luteinizing hormone (LH) and follicle-stimulating hormone (FSH). The GnRH receptor (GnRHR), like most G protein-coupled receptors, contains a seven transmembrane domain. However, unlike most G protein-coupled receptors, the GnRHR lacks an intracellular C-terminal domain. The GnRHR gene is thought to be regulated by GnRH and Activin A, and has been shown to undergo alternative splicing.

## REFERENCES

1. Tsutsumi, M., et al. 1992. Cloning and functional expression of a mouse gonadotropin-releasing hormone receptor. *Mol. Endocrinol.* 6: 1163-1169.
2. Chi, L., et al. 1993. Cloning and characterization of the human GnRH receptor. *Mol. Cell. Endocrinol.* 91: R1-R6.
3. Zhou, W., et al. 1994. Structure of the mouse gonadotropin-releasing hormone receptor gene: variant transcripts generated by alternative processing. *DNA Cell Biol.* 13: 605-614.
4. Kaiser, U.B., et al. 1995. A mechanism for the differential regulation of gonadotropin subunit gene expression by gonadotropin-releasing hormone. *Proc. Natl. Acad. Sci. USA* 92: 12280-12284.
5. Fernandez-Vazquez, G., et al. 1996. Transcriptional activation of the gonadotropin-releasing hormone receptor gene by Activin A. *Mol. Endocrinol.* 10: 356-366.
6. Kaiser, U.B., et al. 1997. Differential effects of gonadotropin-releasing hormone (GnRH) pulse frequency on gonadotropin subunit and GnRH receptor messenger ribonucleic acid levels *in vitro*. *Endocrinology* 138: 1224-1231.
7. Lin, X. and Conn, P.M. 1998. Transcriptional activation of gonadotropin-releasing hormone (GnRH) receptor gene by GnRH and cyclic adenosine monophosphate. *Endocrinology* 139: 3896-3902.

## CHROMOSOMAL LOCATION

Genetic locus: GNRHR (human) mapping to 4q13.2.

## SOURCE

GnRHR (GRX-5) is a mouse monoclonal antibody raised against synthetic peptide corresponding to amino acids 1-31 of GnRHR of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

GnRHR (GRX-5) is recommended for detection of GnRHR of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for GnRHR siRNA (h): sc-40012, GnRHR shRNA Plasmid (h): sc-40012-SH and GnRHR shRNA (h) Lentiviral Particles: sc-40012-V.

Molecular Weight of GnRHR: 68 kDa.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.