

# GnRHR2 (67-R): sc-100301

## 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). GnRHR2 (Gonadotropin-releasing hormone (type 2) receptor 2), also known as GnRH II-R, is a 379 amino acid multi-pass membrane protein that is expressed in a variety of tissues, where it functions as a G protein-coupled receptor for GnRH. Localized to the cell membrane, GnRHR2 mediates its own receptor activity via association with G proteins, thereby activating a phosphatidylinositol-calcium second messenger system that regulates GnRHR2 function. GnRHR2 is thought to have potent antiproliferative effects on ovarian and endometrial cancer cells, suggesting a possible role in tumor suppression. Due to alternative splicing events, GnRHR2 is expressed as two isoforms.

## REFERENCES

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- Eicke, N., et al. 2005. GnRH II receptor-like antigenicity in human placenta and in cancers of the human reproductive organs. *Eur. J. Endocrinol.* 153: 605-612.
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## CHROMOSOMAL LOCATION

Genetic locus: GNRHR2 (human) mapping to 1q21.1.

## SOURCE

GnRHR2 (67-R) is a mouse monoclonal antibody raised against recombinant GnRHR2 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

GnRHR2 (67-R) is recommended for detection of GnRHR2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GnRHR2 siRNA (h): sc-108007, GnRHR2 shRNA Plasmid (h): sc-108007-SH and GnRHR2 shRNA (h) Lenti-viral Particles: sc-108007-V.

Molecular Weight of GnRHR2 precursor: 42 kDa.

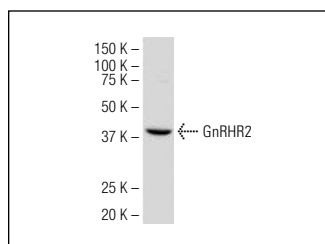
Molecular Weight of glycosylated GnRHR2: 54 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz >Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use >Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



GnRHR2 (67-R): sc-100301. Western blot analysis of GnRHR2 expression in HeLa whole cell lysate.

## SELECT PRODUCT CITATIONS

- Montagnani Marelli, M., et al. 2009. Type I gonadotropin-releasing hormone receptor mediates the antiproliferative effects of GnRH-II on prostate cancer cells. *J. Clin. Endocrinol. Metab.* 94: 1761-1767.

## STORAGE

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

## RESEARCH USE

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