

GnRH I (FL-92): sc-20941

BACKGROUND

Human reproduction is controlled by the hypothalamic-pituitary-gonadal axis laid down early in fetal development. Luteinizing hormone releasing hormone (LHRH), also known as gonadotropin releasing hormone (GnRH), luteinizing hormone releasing hormone (LHRH), also known as gonadotropin releasing hormone (GnRH), luteinizing hormone releasing hormone (LHRH), also known as gonadotropin releasing hormone (GnRH), is a decapeptide that is an important molecule in the hypothalamic-pituitary-gonadal axis control circuit. GnRH is produced by hypothalamic neurons and secreted in a pulsatile manner into the capillary plexus of the median eminence. GnRH affects the release of luteinizing hormone and follicle stimulating hormone from gonadotropic cells in the anterior pituitary. In addition to hypothalamic GnRH (GnRH I), a second GnRH form (GnRH II) functions primarily in the midbrain. GnRH is expressed in the acrosomal region of human sperm and in the anterior pituitary tissue and cancer cells. Unlike GnRH I, GnRH II is highly expressed outside the brain, particularly in the kidney, bone marrow and prostate, suggesting that it may have multiple functions. GnRH binds to a specific G protein-coupled receptor in the pituitary to regulate synthesis and secretion of gonadotropins.

CHROMOSOMAL LOCATION

Genetic locus: GNRH1 (human) mapping to 8p21.2; GnRH1 (mouse) mapping to 14 D1.

SOURCE

GnRH I (FL-92) is a rabbit polyclonal antibody raised against amino acids 1-92 representing full length Progonadoliberin I precursor of human origin.

PRODUCT

Each vial contains 200 µg IgG 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

GnRH I (FL-92) is recommended for detection of Progonadoliberin I precursor and Gonadoliberin I and GnRH-associated peptide I active peptides of mouse, rat and 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GnRH I (FL-92) is also recommended for detection of Progonadoliberin I precursor and Gonadoliberin I and GnRH-associated peptide I active peptides in additional species, including equine.

Suitable for use as control antibody for GnRH I siRNA (h): sc-39542, GnRH I siRNA (m): sc-39543, GnRH I shRNA Plasmid (h): sc-39542-SH, GnRH I shRNA Plasmid (m): sc-39543-SH, GnRH I shRNA (h) Lentiviral Particles: sc-39542-V and GnRH I shRNA (m) Lentiviral Particles: sc-39543-V.

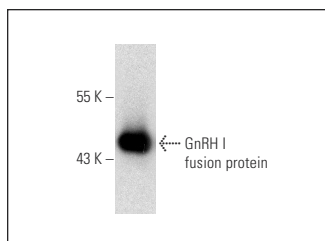
Molecular Weight of GnRH I pre-proform: 10 kDa.

Molecular Weight of GnRH I proform: 7.6 kDa.

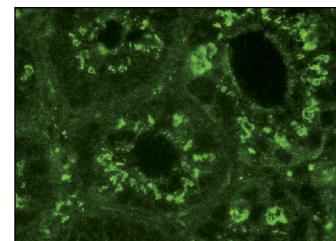
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), 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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



GnRH I (FL-92): sc-20941. Western blot analysis of human recombinant GnRH I fusion protein.



GnRH I (FL-92): sc-20941. Immunofluorescence staining of normal mouse intestine frozen section showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

1. Szymanski, L. and Bakker, J. 2012. Aromatase knockout mice show normal steroid-induced activation of gonadotrophin-releasing hormone neurones and luteinising hormone surges with a reduced population of kisspeptin neurones in the rostral hypothalamus. *J. Neuroendocrinol.* 24: 1222-1233.
2. Smarr, B.L., et al. 2012. The dorsomedial suprachiasmatic nucleus times circadian expression of Kiss1 and the luteinizing hormone surge. *Endocrinology* 153: 2839-2850.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **GnRH I (A-4): sc-271918** or **GnRH I (C-9): sc-373690**, our highly recommended monoclonal alternatives to GnRH I (FL-92). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **GnRH I (A-4): sc-271918**.