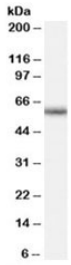
GNRHR Goat Polyclonal Antibody / GnRH Receptor Antibody (R35341)

Catalog No.	Formulation	Size
R35341-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Dog
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	2798
Applications	Western blot: 0.5-2ug/ml ELISA (peptide) LOD: 1:32000
Limitations	This GNRHR Goat Polyclonal Antibody / GnRH Receptor Antibody is available for research use only.



GNRHR Antibody by WB in Human PBMC Lysate. Western blot analysis of human peripheral blood mononuclear cell (PBMC) lysate using GNRHR Goat Polyclonal Antibody at 0.5 ug/ml. A prominent band is detected at approximately 55-60 kDa, within the reported molecular weight range for GNRHR.

Description

GNRHR Goat Polyclonal Antibody / GnRH Receptor Antibody recognizes the gonadotropin-releasing hormone receptor, a seven-transmembrane G protein-coupled receptor encoded by the GNRHR gene. Also known as the gonadoliberin receptor or luteinizing hormone-releasing hormone receptor, GNRHR mediates the effects of gonadotropin-releasing hormone (GnRH), a hypothalamic neuropeptide essential for reproductive endocrine regulation. The receptor is primarily

expressed by gonadotroph cells of the anterior pituitary, where it controls the synthesis and secretion of luteinizing hormone (LH) and follicle-stimulating hormone (FSH).

GnRH is released from hypothalamic neurons into the hypophyseal portal circulation and reaches the anterior pituitary in a pulsatile manner. Binding to GNRHR activates intracellular signaling predominantly through Gq/11 proteins and phospholipase C beta. This pathway generates inositol trisphosphate and diacylglycerol, promoting intracellular calcium mobilization and protein kinase C activation. These events contribute to gonadotropin secretion and transcriptional regulation of hormone subunit genes. Additional signaling pathways, including mitogen-activated protein kinase cascades, influence cellular responses to receptor stimulation.

The mammalian type I GnRH receptor has an unusual structural characteristic: it lacks the conventional intracellular C-terminal tail present in most G protein-coupled receptors. This feature contributes to distinctive receptor trafficking, internalization, and desensitization properties. Physiological responses also depend on the frequency and duration of GnRH stimulation. Pulsatile signaling supports normal gonadotropin production, whereas prolonged stimulation can suppress pituitary responsiveness. Differences in GnRH pulse frequency help regulate the relative synthesis of LH and FSH throughout reproductive development and adult endocrine function.

Inherited GNRHR variants can impair reproductive maturation by disrupting receptor folding, membrane trafficking, ligand recognition, or intracellular signaling. Inactivating mutations are associated with congenital hypogonadotropic hypogonadism, a disorder characterized by insufficient gonadotropin secretion and impaired reproductive development. Investigations of these variants have helped establish relationships between receptor structure and endocrine function, including the importance of proper cell-surface expression for responsiveness to hypothalamic stimulation.

GNRHR expression has also been investigated in reproductive tissues and certain malignancies, where researchers have examined potential relationships between receptor signaling, cellular proliferation, and responses to GnRH analogs. Interpretation of these findings depends on experimental context and confirmation of receptor expression. NSJ Bioreagents offers this GNRHR Goat Polyclonal Antibody to support research into receptor expression, neuroendocrine communication, reproductive hormone regulation, and the molecular mechanisms governing GnRH-dependent signaling.

For additional GNRHR research, explore our GnRH Receptor Antibody F1G4, a monoclonal antibody associated with published studies investigating GnRH receptor expression and signaling.

Application Notes

Optimal dilution of the GNRHR Goat Polyclonal Antibody / GnRH Receptor Antibody should be determined by the researcher.

Immunogen

Amino acids QKWTQKKEKGK were used as the immunogen for this GNRHR antibody.

Storage

Aliquot and store the GNRHR antibody at -20oC.

Alternate Names

Gonadotropin-releasing hormone receptor antibody, Gonadoliberin receptor antibody, Luteinizing hormone-releasing hormone receptor antibody, LH-RH receptor antibody

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