SANTA CRUZ BIOTECHNOLOGY, INC.

LHR (M-17): sc-26343

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Lutropin (also designated luteinizing hormone) plays a role in spermatogenesis and ovulation by stimulating the testes and ovaries to produce steroids. Gonadotropin (also designated choriogonadotropin) production in the placenta maintains estrogen and progesterone levels during the first trimester of pregnancy. Ovaries and testes abundantly express luteinizing hormon/choriogonadotropin receptor (LHR) as a seven transmembrane, G protein-coupled receptor glycoprotein. LHR influences the protective effect of pregnancy and gonadotropin against breast cancer. The expression of LHR on breast carcinoma correlates in part to the degree of tumor differentiation. LHR-positive breast tumors occur more frequently in tumors with greater cell differentiation in premenopausal women. The gene encoding human LHR maps to chromosome 2p21.

REFERENCES

1. Minegishi, T., et al. 1990. Cloning and sequencing of human LH/hCG receptor cDNA. Biochem. Biophys. Res. Commun. 172: 1049-1054.
2. Rousseau-Merck, M.F., et al. 1990. Localization of the human luteinizing hormone/choriogonadotropin receptor gene (LHCGR) to chromosome 2p21. Cytogenet. Cell Genet. 54: 77-79.
3. Vuhai-Luuthi, M.T., et al. 1990. Monoclonal antibodies against luteinizing hormone receptor. Immunochemical characterization of the receptor. Endocrinology 127: 2090-2098.
4. Hakola, K., et al. 1998. Recombinant forms of rat and human luteinizing hormone and follicle-stimulating hormone; comparison of functions *in vitro* and *in vivo*. J. Endocrinol. 158: 441-448.
5. Vaananen, J.E., et al. 1998. Regulation of prostaglandin F2α-receptor mRNA in human granulosa-luteal cells by human chorionic gonadotropin and prostaglandin. Endocrine 8: 261-267.
6. Meduri, G., et al. 2003. Luteinizing hormone receptor status and clinical, pathologic, and prognostic features in patients with breast carcinomas. Cancer 97: 1810-1816.

CHROMOSOMAL LOCATION

Genetic locus: Lhcgr (mouse) mapping to 17 E4.

SOURCE

LHR (M-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of LHR of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-26343 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

LHR (M-17) is recommended for detection of LHR of mouse and, to a lesser extent, rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for LHR siRNA (m): sc-40106, LHR shRNA Plasmid (m): sc-40106-SH and LHR shRNA (m) Lentiviral Particles: sc-40106-V.

Molecular Weight of LHR: 85 kDa.

Positive Controls: mouse testis extract: sc-2405.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Suzuki, O., et al. 2011. Use of sample mixtures for standard curve creation in quantitative western blots. Exp. Anim. 60: 193-196.

STORAGE

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

PROTOCOLS

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