SANTA CRUZ BIOTECHNOLOGY, INC.

LHR (8G9A2): sc-293165

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Lutropin (also designated luteinizing hormone) plays a role in spermatogenesis and ovulation by stimulating the testis 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 testis abundantly express luteinizing hormone/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 2p16.3.

REFERENCES

1. 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.
2. Minegishi, T., et al. 1990. Cloning and sequencing of human LH/hCG receptor cDNA. Biochem. Biophys. Res. Commun. 172: 1049-1054.
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 (human) mapping to 2p16.3; Lhcgr (mouse) mapping to 17 E4.

SOURCE

LHR (8G9A2) is a mouse monoclonal antibody raised against the extracellular domain of LHR of human origin.

PRODUCT

Each vial contains 50 µg IgG_1 in 0.5 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

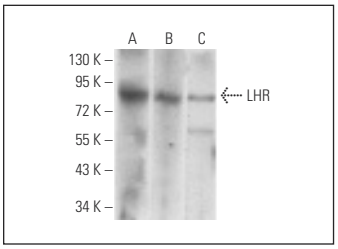
LHR (8G9A2) is recommended for detection of LHR of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for LHR siRNA (h): sc-40105, LHR siRNA (m): sc-40106, LHR shRNA Plasmid (h): sc-40105-SH, LHR shRNA Plasmid (m): sc-40106-SH, LHR shRNA (h) Lentiviral Particles: sc-40105-V and LHR shRNA (m) Lentiviral Particles: sc-40106-V.

Molecular Weight of LHR: 85 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Hep G2 cell lysate: sc-2227 or SMMC-7721 whole cell lysate.

DATA



LHR (8G9A2): sc-293165. Western blot analysis of LHR expression in Hep G2 (**A**), Jurkat (**B**) and SMMC-7721 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Gao, S., et al. 2016. Effects of HCG on human epithelial ovarian cancer vasculogenic mimicry formation *in vivo*. Oncol. Lett. 12: 459-466.
2. Milon, A., et al. 2019. Do estrogens regulate lipid status in testicular steroidogenic Leydig cell? Acta Histochem. 121: 611-618.
3. Tang, Z.R., et al. 2021. Terazosin reduces steroidogenic factor 1 and upregulates heat shock protein 90 expression in LH-induced bovine ovarian theca cells. Free Radic. Biol. Med. 163: 190-195.
4. Ricci, G., et al. 2022. KISS1R and ANKRD31 cooperate to enhance leydig cell gene expression via the cytoskeletal-nucleoskeletal pathway. Front. Cell Dev. Biol. 10: 877270.

RESEARCH USE

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

PROTOCOLS

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