

17 β -HSD11 (S-15): sc-160113

BACKGROUND

17 β -HSD11 (17 β hydroxysteroid dehydrogenase type 11), also designated dehydrogenase/reductase SDR family member 8 (DHRS8) or retinal short-chain dehydrogenase/reductase 2 (retSDR2), belongs to the 17 β -HSD family of proteins, which regulate the availability of steroids within various tissues throughout the body. 17 β -HSD11 is a 300 amino acid protein that converts androstan-3- α ,17- β -diol (3- α -diol) to androsterone, suggesting it may participate in androgen metabolism during steroidogenesis. 17 β -HSD11 is widely expressed with highest levels found in retina, pancreas, kidney, liver, lung, adrenal, small intestine, ovary and heart as well as in steroidogenic cells such as syncytiotrophoblasts, sebaceous gland, Leydig cells and granulosa cells of the dominant follicle and corpus luteum. 17-HSD11 localizes on the endoplasmic reticulum (ER) membrane under normal conditions and redistributes to lipid droplets (LDs) upon the induction of LD formation.

REFERENCES

1. Brereton, P., et al. 2001. Pan1b (17 β HSD11)-enzymatic activity and distribution in the lung. *Mol. Cell. Endocrinol.* 171: 111-117.
2. Chai, Z., et al. 2003. 17 β -hydroxysteroid dehydrogenase type XI localizes to human steroidogenic cells. *Endocrinology* 144: 2084-2091.
3. Fujimoto, Y., et al. 2004. Identification of major proteins in the lipid droplet-enriched fraction isolated from the human hepatocyte cell line HuH7. *Biochim. Biophys. Acta* 1644: 47-59.
4. Horiguchi, Y., et al. 2008. Identification and characterization of the ER/lipid droplet-targeting sequence in 17 β -hydroxysteroid dehydrogenase type 11. *Arch. Biochem. Biophys.* 479: 121-130.
5. Poirier, D. 2009. Advances in development of inhibitors of 17 β hydroxysteroid dehydrogenases. *Anticancer Agents Med. Chem.* 9: 642-660.
6. Nakamura, Y., et al. 2009. 17 β -hydroxysteroid dehydrogenase type 11 (Pan1b) expression in human prostate cancer. *Neoplasma* 56: 317-320.

CHROMOSOMAL LOCATION

Genetic locus: HSD17B11 (human) mapping to 4q22.1; Hsd17b11 (mouse) mapping to 5 E5.

SOURCE

17 β -HSD11 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of 17 β -HSD11 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, Ready P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

17 β -HSD11 (S-15) is recommended for detection of 17 β -HSD11 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other 17 β -HSD family members.

17 β -HSD11 (S-15) is also recommended for detection of 17 β -HSD11 in additional species, including equine and bovine.

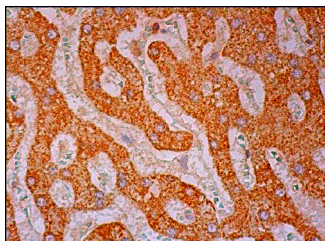
Suitable for use as control antibody for 17 β -HSD11 siRNA (h): sc-89007, 17 β -HSD11 siRNA (m): sc-108261, 17 β -HSD11 shRNA Plasmid (h): sc-89007-SH, 17 β -HSD11 shRNA Plasmid (m): sc-108261-SH, 17 β -HSD11 shRNA (h) Lentiviral Particles: sc-89007-V and 17 β -HSD11 shRNA (m) Lentiviral Particles: sc-108261-V.

Molecular Weight of 17 β -HSD11: 33 kDa.

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. 3) Immunohistochemistry: use ImmunoCruz[™]: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



17 β -HSD11 (S-15): sc-160113. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

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.