

17 β -HSD14 (G-16): sc-131359

BACKGROUND

17 β -HSD14 (17 β hydroxysteroid dehydrogenase type 14), also designated dehydrogenase/reductase SDR family member 10 (DHRS10) or Retinal short-chain dehydrogenase/reductase SDR3, belongs to the 17 β -HSD family of proteins, which regulate the availability of steroids within various tissues throughout the body. 17 β -HSD14 is a 270 amino acid protein that converts oestradiol to oestrone. It exists as a homotetramer that localizes to the cytoplasm and is highly expressed in brain, placenta, liver and kidney. The gene encoding 17 β -HSD14 maps to chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEA-CAM and PSG families, and Fc receptors (FcRs).

REFERENCES

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2. Trettel, F., et al. 2000. A fine physical map of the CACNA1A gene region on 19p13.1-p13.2 chromosome. *Gene* 241: 45-50.
3. Buchet-Poyau, K., et al. 2002. Search for the second Peutz-Jeghers syndrome locus: exclusion of the STK13, PRKCG, KLK10, and PSCD2 genes on chromosome 19 and the STK11IP gene on chromosome 2. *Cytogenet. Genome Res.* 97: 171-178.
4. Moodie, S.J., et al. 2002. Analysis of candidate genes on chromosome 19 in coeliac disease: an association study of the KIR and LILR gene clusters. *Eur. J. Immunogenet.* 29: 287-291.
5. Grimwood, J., et al. 2004. The DNA sequence and biology of human chromosome 19. *Nature* 428: 529-535.
6. Parham, P. 2005. Immunogenetics of killer cell immunoglobulin-like receptors. *Mol. Immunol.* 42: 459-462.
7. Lukacik, P., et al. 2007. Structural and biochemical characterization of human orphan DHRS10 reveals a novel cytosolic enzyme with steroid dehydrogenase activity. *Biochem. J.* 402: 419-427.

CHROMOSOMAL LOCATION

Genetic locus: Hsd17b14 (mouse) mapping to 7 B4.

SOURCE

17 β -HSD14 (G-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of 17 β -HSD14 of mouse 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, sc-131359 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

17 β -HSD14 (G-16) is recommended for detection of 17 β -HSD14 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with other 17 β -HSD family members.

17 β -HSD14 (G-16) is also recommended for detection of 17 β -HSD14 in additional species, including canine.

Suitable for use as control antibody for 17 β -HSD14 siRNA (m): sc-108264, 17 β -HSD14 shRNA Plasmid (m): sc-108264-SH and 17 β -HSD14 shRNA (m) Lentiviral Particles: sc-108264-V.

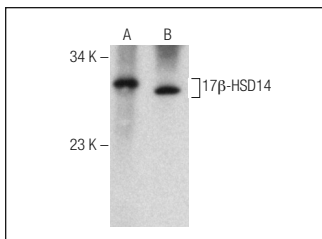
Molecular Weight of 17 β -HSD14: 28 kDa.

Postive Controls: Mouse placenta tissue extract or rabbit liver tissue extract.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



17 β -HSD14 (G-16): sc-131359. Western blot analysis of 17 β -HSD14 expression in mouse placenta (A) and rabbit liver (B) tissue extracts.

STORAGE

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

RESEARCH USE

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