

17 β -HSD (A-15): sc-26963

BACKGROUND

17 β -hydroxysteroid dehydrogenase type 1 (17 β -HSD) catalyzes the final step in the formation of estradiol and testosterone from estrone and androstenedione, respectively. Ovarian granulosa cells and breast tissue both express 17 β -HSD. Other tissues that express 17 β -HSD include testis, placenta, uterus, prostate and adipose tissue. 17 β -HSD functions as a homodimer and prefers NADP(H) over NAD(H) for oxidation and reduction. The gene encoding human 17 β -HSD maps to chromosome 17q21.2. The importance of 17 β -HSD to estradiol production suggests the specific inhibition of 17 β -HSD may aid in breast cancer therapy. Breast cancer patients with an amplification of 17 β -HSD expression statistically have a worse outcome than those without. 17 β -HSD amplification in tamoxifen-treated patients correlates to decreased breast cancer survival.

CHROMOSOMAL LOCATION

Genetic locus: HSD17B1 (human) mapping to 17q21.2; Hsd17b1 (mouse) mapping to 11 D.

SOURCE

17 β -HSD (A-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of 17 β -HSD 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, sc-26963 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

17 β -HSD (A-15) is recommended for detection of 17 β -HSD of human and, to a lesser extent, 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).

Suitable for use as control antibody for 17 β -HSD siRNA (h): sc-41381, 17 β -HSD siRNA (m): sc-41382, 17 β -HSD shRNA Plasmid (h): sc-41381-SH, 17 β -HSD shRNA Plasmid (m): sc-41382-SH, 17 β -HSD shRNA (h) Lentiviral Particles: sc-41381-V and 17 β -HSD shRNA (m) Lentiviral Particles: sc-41382-V.

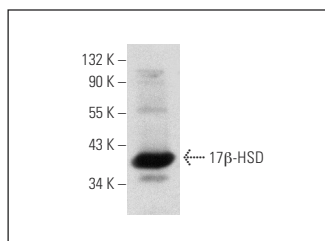
Molecular Weight of 17 β -HSD: 34.5 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or BT-20 cell lysate: sc-2223.

RESEARCH USE

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

DATA



17 β -HSD (A-15): sc-26963. Western blot analysis of 17 β -HSD expression in BT-20 whole cell lysate.

SELECT PRODUCT CITATIONS

- Gregoraszczuk, E.L., et al. 2011. Differential accumulation of HCBz and PeCBz in porcine ovarian follicles and their opposing actions on steroid secretion and CYP11, CYP17, 17 β -HSD and CYP19 protein expression. A tissue culture approach. *Reprod. Toxicol.* 31: 494-499.
- Karpeta, A., et al. 2011. Congener-specific action of PBDEs on steroid secretion, CYP17, 17 β -HSD and CYP19 activity and protein expression in porcine ovarian follicles. *Toxicol. Lett.* 206: 258-263.
- Gregoraszczuk, E.L., et al. 2011. Halowax 1051 affects steroidogenesis, 17 β -hydroxysteroid dehydrogenase (17 β -HSD) and cytochrome P450arom (CYP19) activity, and protein expression in porcine ovarian follicles. *Reprod. Toxicol.* 32: 379-384.
- Rak-Mardy A.A., et al. 2013. Effects of resistin on porcine ovarian follicle steroidogenesis in prepubertal animals: an *in vitro* study. *Reprod. Biol. Endocrinol.* 11: 45.
- Gregoraszczuk, E.L. and Rak-Mardyla, A. 2013. Supraphysiological leptin levels shift the profile of steroidogenesis in porcine ovarian follicles toward progesterone and testosterone secretion through increased expressions of CYP11A1 and 17 β -HSD: a tissue culture approach. *Reproduction* 145: 311-317.

PROTOCOLS

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

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Try **17 β -HSD (D-8): sc-373902** or **17 β -HSD (F-9): sc-365888**, our highly recommended monoclonal alternatives to 17 β -HSD (A-15).