

# 17 $\beta$ -HSD8 (E-13): sc-83768

## BACKGROUND

17 $\beta$ -HSD8 (17 $\beta$  hydroxysteroid dehydrogenase type 8) belongs to the 17 $\beta$ -HSD family of proteins that regulate the availability of steroids within a tissue. 17 $\beta$ -HSD8 converts active steroids to their inactive form through its oxidative activity. It is a key player in the inactivation of Estradiol and Testosterone. 17 $\beta$ -HSD8 is predominantly expressed in placenta, endometrium and prostate but can also be found in liver, and pancreas, with lowest levels found in testis, ovary and kidney. It has been proposed that a reduction in the levels of 17 $\beta$ -HSD8 may lead to abnormal elevations in the local level of sex steroids, which can lead to recessive renal cystic disease. It has also been suggested that low levels of 17 $\beta$ -HSD proteins may result in an under-developed urogenital system.

## REFERENCES

1. Ando, A., Kikuti, Y.Y., Shigenari, A., Kawata, H., Okamoto, N., Shiina, T., Chen, L., Ikemura, T., Abe, K., Kimura, M. and Inoko, H. 1996. cDNA cloning of the human homologues of the mouse Ke4 and Ke6 genes at the centromeric end of the human MHC region. *Genomics* 35: 600-602.
2. Kikuti, Y.Y., Tamiya, G., Ando, A., Chen, L., Kimura, M., Ferreira, E., Tsuji, K., Trowsdale, J. and Inoko, H. 1997. Physical mapping 220 kb centromeric of the human MHC and DNA sequence analysis of the 43 kb segment including the RING1, HKE6, and HKE4 genes. *Genomics* 42: 422-435.
3. Fomitcheva, J., Baker, M.E., Anderson, E., Lee, G.Y. and Aziz, N. 1998. Characterization of Ke6, a new 17 $\beta$ -hydroxysteroid dehydrogenase, and its expression in gonadal tissues. *J. Biol. Chem.* 273: 22664-22671.
4. Aziz, N., Anderson, E., Lee, G.Y. and Woo, D.D. 2001. Arrested testis development in the cpk mouse may be the result of abnormal steroid metabolism. *Mol. Cell. Endocrinol.* 171: 83-88.
5. Ma, Y., Xu, S.Z., Gao, X., Ren, H.Y., Xin, Y.P., Gao, S.X. and Zhang, Y.H. 2006. Molecular cloning of bovine FABGL gene and its effects on bovine bioeconomic traits. *Yi Chuan Xue Bao* 33: 1096-1104.
6. Villar, J., Celay, J., Alonso, M.M., Rotinen, M., de Miguel, C., Migliaccio, M. and Encío, I. 2007. Transcriptional regulation of the human type 8 17 $\beta$ -hydroxysteroid dehydrogenase gene by C/EBP $\beta$ . *J. Steroid Biochem. Mol. Biol.* 105: 131-139.
7. Reinders, J., Rozemuller, E.H., van der Weide, P., Oka, A., Slootweg, P.J., Inoko, H. and Tilanus, M.G. 2007. Genes in the HLA region indicative for head and neck squamous cell carcinoma. *Mol. Immunol.* 44: 848-855.
8. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 601417. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: HSD17B8 (human) mapping to 6p21.3; H2-Ke6 (mouse) mapping to 17 B1.

## STORAGE

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

## SOURCE

17 $\beta$ -HSD8 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of 17 $\beta$ -HSD8 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-83768 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

17 $\beta$ -HSD8 (E-13) is recommended for detection of 17 $\beta$ -HSD8 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other 17 $\beta$ -HSD family members.

17 $\beta$ -HSD8 (E-13) is also recommended for detection of 17 $\beta$ -HSD8 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for 17 $\beta$ -HSD8 siRNA (h): sc-72400, 17 $\beta$ -HSD8 siRNA (m): sc-72401, 17 $\beta$ -HSD8 shRNA Plasmid (h): sc-72400-SH, 17 $\beta$ -HSD8 shRNA Plasmid (m): sc-72401-SH, 17 $\beta$ -HSD8 shRNA (h) Lentiviral Particles: sc-72400-V and 17 $\beta$ -HSD8 shRNA (m) Lentiviral Particles: sc-72401-V.

Molecular Weight of 17 $\beta$ -HSD8: 27 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **17 $\beta$ -HSD8 (G-4): sc-515239**, our highly recommended monoclonal alternative to 17 $\beta$ -HSD8 (E-13).