

17 β -HSD7 (F-4): sc-393936

BACKGROUND

17 β -HSD7 (17 β hydroxysteroid dehydrogenase type 7), also designated 3-keto-steroid reductase, belongs to the 17 β -HSD family of proteins, which regulate the availability of steroids within various tissues throughout the body. 17 β -HSD7 is a 341 amino acid protein that converts estrone to estradiol and is also involved in cholesterol biosynthesis. 17 β -HSD7 is highly expressed in adrenal gland, liver, lung and thymus. It is also expressed in the corpus luteum, where it is thought to play a role in fetal development. Single nucleotide polymorphisms in the gene encoding 17 β -HSD7 have been shown to affect its level of transcription in LNCaP and DU145 cells, which may modulate an adverse reaction induced by estramustine phosphate sodium.

CHROMOSOMAL LOCATION

Genetic locus: HSD17B7 (human) mapping to 1q23.3; Hsd17b7 (mouse) mapping to 1 H3.

SOURCE

17 β -HSD7 (F-4) is a mouse monoclonal antibody raised against amino acids 121-195 mapping within an internal region of 17 β -HSD7 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

17 β -HSD7 (F-4) is available conjugated to agarose (sc-393936 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393936 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393936 PE), fluorescein (sc-393936 FITC), Alexa Fluor® 488 (sc-393936 AF488), Alexa Fluor® 546 (sc-393936 AF546), Alexa Fluor® 594 (sc-393936 AF594) or Alexa Fluor® 647 (sc-393936 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393936 AF680) or Alexa Fluor® 790 (sc-393936 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

17 β -HSD7 (F-4) is recommended for detection of 17 β -HSD7 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 -HSD7 siRNA (h): sc-88433, 17 β -HSD7 siRNA (m): sc-108266, 17 β -HSD7 shRNA Plasmid (h): sc-88433-SH, 17 β -HSD7 shRNA Plasmid (m): sc-108266-SH, 17 β -HSD7 shRNA (h) Lentiviral Particles: sc-88433-V and 17 β -HSD7 shRNA (m) Lentiviral Particles: sc-108266-V.

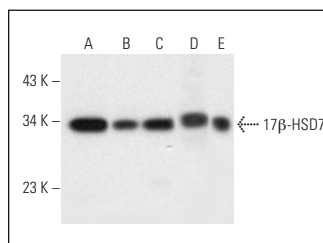
Molecular Weight of 17 β -HSD7: 38/37/34 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, NTERA-2 cl.D1 whole cell lysate: sc-364181 or HL-60 whole cell lysate: sc-2209.

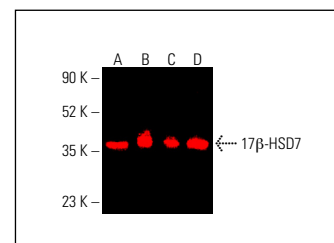
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



17 β -HSD7 (F-4): sc-393936. Western blot analysis of 17 β -HSD7 expression in Hep G2 (A), NTERA-2 cl.D1 (B), HL-60 (C), MCF7 (D) and Jurkat (E) whole cell lysates.



17 β -HSD7 (F-4): sc-393936. Near-Infrared western blot analysis of 17 β -HSD7 expression in Hep G2 (A), NTERA-2 cl.D1 (B), HL-60 (C) and MCF7 (D) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG κ BP-CFL 790: sc-542740.

SELECT PRODUCT CITATIONS

- Blesson, C.S., et al. 2020. *In utero* low protein diet programmed type 2 diabetes in adult offspring is mediated by sex hormones in rats. Biol. Reprod. 103: 1110-1120.
- Xu, X., et al. 2021. HSD17B7 gene in self-renewal and oncogenicity of keratinocytes from Black versus White populations. EMBO Mol. Med. 13: e14133.
- de Oliveira, S.A., et al. 2021. Impaired macrophages and failure of steroidogenesis and spermatogenesis in rat testes with cytokines deficiency induced by diacerein. Histochem. Cell Biol. 156: 561-581.
- de Santi, F., et al. 2022. Venlafaxine-induced adrenergic signaling stimulates Leydig cells steroidogenesis via Nur77 overexpression: a possible role of EGF. Life Sci. 289: 120069.
- Beltrame, F.L., et al. 2024. Role of serotonin, estrogen, and TNF- α in the paroxetine-impaired steroidogenesis and testicular macrophages polarization. Andrology 12: 655-673.

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.