

## 3 $\beta$ -HSD7 (Y-15): sc-83775

### BACKGROUND

3 $\beta$ -hydroxysteroid dehydrogenase (3 $\beta$ -HSD), also known as HSD3B1 or HSDB3, is a bifunctional enzyme that plays a crucial role in the synthesis of all classes of hormonal steroids. 3 $\beta$ -hydroxysteroid dehydrogenase type 7 (3 $\beta$ -HSD7) is a 369 amino acid protein belonging to the 3 $\beta$ -HSD family. Localized to the membrane of the endoplasmic reticulum, 3 $\beta$ -HSD7 plays an active role in the initial stages of bile synthesis from cholesterol. 3 $\beta$ -HSD7 catalyzes the oxidative conversion of  $\delta$ 5-ene-3 $\beta$ -hydroxy steroid and is active against 7 $\alpha$  hydroxylated sterol substrates. Mutations in the gene encoding 3 $\beta$ -HSD7 are associated with congenital bile acid synthesis defect, which leads to neonatal cholestasis.

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: HSD3B7 (human) mapping to 16p11.2; Hsd3b7 (mouse) mapping to 7 F3.

### SOURCE

3 $\beta$ -HSD7 (Y-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of 3 $\beta$ -HSD7 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-83775 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

3 $\beta$ -HSD7 (Y-15) is recommended for detection of 3 $\beta$ -HSD7 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 3 $\beta$ -HSD.

3 $\beta$ -HSD7 (Y-15) is also recommended for detection of 3 $\beta$ -HSD7 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for 3 $\beta$ -HSD7 siRNA (h): sc-72402, 3 $\beta$ -HSD7 siRNA (m): sc-72403, 3 $\beta$ -HSD7 shRNA Plasmid (h): sc-72402-SH, 3 $\beta$ -HSD7 shRNA Plasmid (m): sc-72403-SH, 3 $\beta$ -HSD7 shRNA (h) Lentiviral Particles: sc-72402-V and 3 $\beta$ -HSD7 shRNA (m) Lentiviral Particles: sc-72403-V.

Molecular Weight of 3 $\beta$ -HSD7: 41 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.

### 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.