SANTA CRUZ BIOTECHNOLOGY, INC.

OSTα (N-15): sc-100078

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The heteromeric transporter OSTα/OSTβ facilitates the transport of bile and other steroid solutes across the basolateral epithelial cell membrane of intestine, liver, testis, kidney and adrenal gland. OSTα/OSTβ expression is induced by bile acids through ligand-dependent transactivation of their genes by FXR (Farnesoid X-activated receptor). This genetic regulation suggests that in response to changes in intracellular bile acid levels, bile acids adjust the rate of their own efflux from enterocytes. OSTα (organic solute transporter subunit α) is a 340 amino acid multi-pass membrane protein that requires interaction with OSTβ in order to reach the plasma membrane. In OSTα null mice, transileal transport of taurocholate was reduced by more than 80% and bile acid pool size was reduced by more than 65% when compared with wildtype mice, suggesting that OSTα is critical for intestinal bile acid transport. Though widely expressed, OSTα is present at highest levels in ileum.

REFERENCES

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8. Rao, A., et al. 2008. The organic solute transporter α-β, OSTα-OSTβ, is essential for intestinal bile acid transport and homeostasis. Proc. Natl. Acad. Sci. USA 105: 3891-3896.
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CHROMOSOMAL LOCATION

Genetic locus: OSTα (human) mapping to 3q29; Osta (mouse) mapping to 16 B3.

SOURCE

OSTα (N-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of OSTα of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-100078 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OSTα (N-15) is recommended for detection of OSTα of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 OSTα siRNA (h): sc-78006, OSTα siRNA (m): sc-151335, OSTα shRNA Plasmid (h): sc-78006-SH, OSTα shRNA Plasmid (m): sc-151335-SH, OSTα shRNA (h) Lentiviral Particles: sc-78006-V and OSTα shRNA (m) Lentiviral Particles: sc-151335-V.

Molecular Weight of OSTα: 40 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ 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.

PROTOCOLS

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