

ABCB7 (E-19): sc-249893

BACKGROUND

The peroxisomal membrane contains several ATP-binding cassette (ABC) transporters, ABCD1-4 that are known to be present in the human peroxisome membrane. All four proteins are ABC half-transporters, which dimerize to form an active transporter. A mutation in the ABCD1 causes X-linked adrenoleukodystrophy (X-ALD), a peroxisomal disorder which affects lipid storage. ABCD2 in mouse, is expressed at high levels in the brain and adrenal organs, which are adversely affected in X-ALD. The peroxisomal membrane comprises 2 quantitatively major proteins, PMP22 and ABCD3. ABCD3 is associated with irregularly shaped vesicles which may be defective peroxisomes or peroxisome precursors. ABCD4 localizes to peroxisomes. The genes which encode ABCD1-4 map to human chromosome Xq28, 12q11-q12, 1p22-p21 and 14q24.3, respectively. ABCB7 is a half-transporter involved in the transport of heme from the mitochondria to the cytosol and maps to human chromosome Xq13.3.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ABCB7 (human) mapping to Xq13.3; Abcb7 (mouse) mapping to X D.

RESEARCH USE

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

SOURCE

ABCB7 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ABCB7 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-249893 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ABCB7 (E-19) is recommended for detection of ABCB7 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 ABCB family members.

ABCB7 (E-19) is also recommended for detection of ABCB7 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ABCB7 siRNA (h): sc-90986, Abcb7 siRNA (m): sc-140758, ABCB7 shRNA Plasmid (h): sc-90986-SH, Abcb7 shRNA Plasmid (m): sc-140758-SH, ABCB7 shRNA (h) Lentiviral Particles: sc-90986-V and Abcb7 shRNA (m) Lentiviral Particles: sc-140758-V.

Molecular Weight of ABCB7: 83 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™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) 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™ 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.

PROTOCOLS

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