

# ABCA10 (N-13): sc-167033

## BACKGROUND

ABCA10 (ATP-binding cassette, sub-family A (ABC1), member 10), also known as EST698739, is a 1,543 amino acid protein belonging to the ABC transporter superfamily and the ABCA family. The ABC1 subfamily is the only major ABC subfamily exclusive to multicellular eukaryotes. Ubiquitously expressed, with high expression in skeletal muscle, heart, brain and gastrointestinal tract, ABCA10 is a multi-pass membrane protein that contains two ABC transporter domains and exists as four alternatively spliced isoforms. ABCA10 is clustered among five other ABC1 family members on human chromosome 17q24.3. ABCA10 exhibits membrane subcellular localization and likely acts as a transporter involved in macrophage lipid homeostasis. ABCA10 is down-regulated by cholesterol loading of macrophages and may play a role in tumor development.

## REFERENCES

- Dean, M., et al. 2001. Complete characterization of the human ABC gene family. *J. Bioenerg. Biomembr.* 33: 475-479.
- Wenzel, J.J., et al. 2003. ABCA10, a novel cholesterol-regulated ABCA6-like ABC transporter. *Biochem. Biophys. Res. Commun.* 306: 1089-1098.
- Annino, T., et al. 2003. Evolutionary analysis of a cluster of ATP-binding cassette (ABC) genes. *Mamm. Genome* 14: 7-20.
- Dean, M., et al. 2005. Evolution of the ATP-binding cassette (ABC) transporter superfamily in vertebrates. *Annu. Rev. Genomics Hum. Genet.* 6: 123-142.
- Annino, T., et al. 2006. Evolution of the vertebrate ABC gene family: analysis of gene birth and death. *Genomics* 88: 1-11.
- de Grouw, E.P., et al. 2006. Preferential expression of a high number of ATP binding cassette transporters in both normal and leukemic CD34<sup>+</sup>CD38<sup>-</sup> cells. *Leukemia* 20: 750-754.
- Ohtsuki, S., et al. 2007. Correlation of induction of ATP binding cassette transporter A5 (ABCA5) and ABCB1 mRNAs with differentiation state of human colon tumor. *Biol. Pharm. Bull.* 30: 1144-1146.
- Li, G., et al. 2007. Evolutionary dynamics of the ABCA chromosome 17q24 cluster genes in vertebrates. *Genomics* 89: 385-391.

## CHROMOSOMAL LOCATION

Genetic locus: ABCA10 (human) mapping to 17q24.3.

## SOURCE

ABCA10 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of ABCA10 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-167033 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ABCA10 (N-13) is recommended for detection of ABCA10 of 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); non cross-reactive with other ABCA family members.

ABCA10 (N-13) is also recommended for detection of ABCA10 in additional species, including equine.

Suitable for use as control antibody for ABCA10 siRNA (h): sc-94133, ABCA10 shRNA Plasmid (h): sc-94133-SH and ABCA10 shRNA (h) Lentiviral Particles: sc-94133-V.

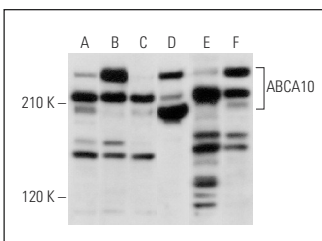
Molecular Weight of ABCA10: 176 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



ABCA10 (N-13): sc-167033. Western blot analysis of ABCA10 expression in K-562 (A), HeLa (B), Jurkat (C), ARPE-19 (D), IMR-32 (E) and SJRH30 (F) whole cell lysates.

## 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.