

ABCA9 (D-15): sc-163607

BACKGROUND

ABCA9 (ATP-binding cassette, sub-family A (ABC1), member 9) is a 1,624 amino acid protein belonging to the ABC transporter superfamily and the ABCA family. The ABC1 subfamily is the only major ABC subfamily exclusive to multi-cellular eukaryotes. Ubiquitously expressed, with high expression in heart, brain and fetal tissues, ABCA9 is a multi-pass membrane protein that contains two ABC transporter domains and exists as five alternatively spliced isoforms. ABCA9 exhibits membrane subcellular localization and may play a role in monocyte differentiation and lipid homeostasis. ABCA9 is up-regulated during monocyte differentiation into macrophages and down-regulated by cholesterol loading of macrophages. Spanning 85 kb, ABCA9 contains 39 exons, with a non-coding first exon. ABCA9 is one of five ABC1 family members that maps to human chromosome 17q24.

REFERENCES

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4. Wakaumi, M., et al. 2005. Acute digoxin loading reduces ABCA8A mRNA expression in the mouse liver. *Clin. Exp. Pharmacol. Physiol.* 32: 1034-1041.
5. de Grouw, E.P., et al. 2006. Preferential expression of a high number of ATP binding cassette transporters in both normal and leukemic CD34⁺CD38⁻ cells. *Leukemia* 20: 750-754.
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7. Li, G., et al. 2007. Evolutionary dynamics of the ABCA chromosome 17q24 cluster genes in vertebrates. *Genomics* 89: 385-391.
8. Albrecht, C., et al. 2007. The ABCA subfamily—gene and protein structures, functions and associated hereditary diseases. *Pflugers Arch.* 453: 581-589.
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CHROMOSOMAL LOCATION

Genetic locus: ABCA9 (human) mapping to 17q24.2; Abca9 (mouse) mapping to 11 E1.

SOURCE

ABCA9 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ABCA9 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-163607 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ABCA9 (D-15) is recommended for detection of ABCA9 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 ABCA family members.

ABCA9 (D-15) is also recommended for detection of ABCA9 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for ABCA9 siRNA (h): sc-94171, ABCA9 siRNA (m): sc-140755, ABCA9 shRNA Plasmid (h): sc-94171-SH, ABCA9 shRNA Plasmid (m): sc-140755-SH, ABCA9 shRNA (h) Lentiviral Particles: sc-94171-V and ABCA9 shRNA (m) Lentiviral Particles: sc-140755-V.

Molecular Weight of ABCA9: 184 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.

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.