

# ABCA8 siRNA (h): sc-93930

## BACKGROUND

ATP-binding cassette (ABC) transporters are an evolutionarily conserved family of proteins that catalyze the transport of molecules across extracellular and intracellular membranes by harnessing the energy of ATP hydrolysis. ABCA8 (ATP-binding cassette, subfamily A (ABC1), member 8) is a 1,581 amino acid multi-pass membrane protein that contains two ABC transporter domains and belongs to the ABC transporter family. Expressed in a variety of tissues with particularly high expression in liver, heart and skeletal muscle, ABCA8 functions as an ATP-dependent lipophilic drug transporter that exists as multiple alternatively spliced isoforms. The gene encoding ABCA8 maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes.

## REFERENCES

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7. 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.
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## CHROMOSOMAL LOCATION

Genetic locus: ABCA8 (human) mapping to 17q24.2.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## PRODUCT

ABCA8 siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ABCA8 shRNA Plasmid (h): sc-93930-SH and ABCA8 shRNA (h) Lentiviral Particles: sc-93930-V as alternate gene silencing products.

For independent verification of ABCA8 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-93930A, sc-93930B and sc-93930C.

## STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNases and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

ABCA8 siRNA (h) is recommended for the inhibition of ABCA8 expression in human cells.

## SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10  $\mu$ M in 66  $\mu$ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor ABCA8 gene expression knockdown using RT-PCR Primer: ABCA8 (h)-PR: sc-93930-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.