



MRP7 siRNA (m): sc-62642

BACKGROUND

The MRP family is represented by nine similar ABC transporters that have the ability to transport structurally diverse lipophilic anions and operate as chemical efflux pumps. MRP7 (multidrug resistance-associated protein 7, ATP-binding cassette sub-family C member 10) is a multi-pass membrane protein that belongs to the ABC transporter family (conjugate transporter subfamily). MRP7 is involved with the ATP-dependent transport of 17 β -estradiol-D-17- β -glucuronide (E217 β G). MRP7 is also probably involved in cellular detoxification through its lipophilic anion extrusion capabilities. MRP7 contains two ABC transmembrane type 1 domains and two ABC transporter domains. MRP7 likely has three isoforms. Isoform 2 is the most widely expressed, while isoform 1 is predominately expressed in the spleen.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Abcc10 (mouse) mapping to 17 C.

PROTOCOLS

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

PRODUCT

MRP7 siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see MRP7 shRNA Plasmid (m): sc-62642-SH and MRP7 shRNA (m) Lentiviral Particles: sc-62642-V as alternate gene silencing products.

For independent verification of MRP7 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-62642A, sc-62642B and sc-62642C.

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

APPLICATIONS

MRP7 siRNA (m) is recommended for the inhibition of MRP7 expression in mouse 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 μ M in 66 μ 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 MRP7 gene expression knockdown using RT-PCR Primer: MRP7 (m)-PR: sc-62642-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

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