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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

RQCD1 siRNA (m): sc-153125

BACKGROUND

RQCD1 (RCD1 required for cell differentiation1 homolog (*S. pombe*)) is a 299 amino acid protein that belongs to the RCD1 family. Detected in spleen, thymus, prostate, testis, ovary and intestine, RQCD1 localizes to nucleus, and is essential for the commitment to nitrogen starvation-invoked differentiation. RQCD1 interacts with c-Myb, ATF-2, RAR α , RAR β , RAR γ , RXR α , RXR β and RXR γ . The RQCD1 protein has also been identified in a complex with ATF-2 bound to target DNA. The RQCD1 gene is highly conserved throughout eukaryotes, with gene products in different species showing over 70% sequence homology. The RQCD1 gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish, fruit fly, mosquito, *C.elegans*, *S.pombe*, *S.cerevisiae*, *K.lactis*, *E.gossypii*, *M.grisea*, *N.crassa*, *A.thaliana*, rice and *P.falciparum*, and maps to human chromosome 2q35.

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Rqcd1 (mouse) mapping to 1 C3.

PRODUCT

RQCD1 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 RQCD1 shRNA Plasmid (m): sc-153125-SH and RQCD1 shRNA (m) Lentiviral Particles: sc-153125-V as alternate gene silencing products.

For independent verification of RQCD1 (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-153125A, sc-153125B and sc-153125C.

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

RQCD1 siRNA (m) is recommended for the inhibition of RQCD1 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 RQCD1 gene expression knockdown using RT-PCR Primer: RQCD1 (m)-PR: sc-153125-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.