SANTA CRUZ BIOTECHNOLOGY, INC.

GOR siRNA (h): sc-77867

BACKGROUND

Proper DNA and RNA metabolism requires nucleases that function in DNA replication, recombination and repair, as well as in RNA processing and degradation events. REXO1 (REX1, RNA exonuclease 1 homolog) is ubiquitously expressed nuclear protein that interacts with both TCEA2 and Elongin A, and may influence transcriptional elongation. GOR, also known as REXO1L1 (REX1, RNA exonuclease 1 homolog (S. cerevisiae)-like 1), is a 675 amino acid exonuclease belonging to the REXO1/REXO3 family. GOR may be related to HCV infection and the anti-GOR response is suggested to reflect an HCV-associated autoimmune phenomenon. Localizing to nucleus and cytoplasm, GOR contains one exonuclease domain and is encoded by a gene that maps to human chromosome 8q21.2.

REFERENCES

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2. Saccardo, F., et al. 1995. Anti-GOR antibodies, HCV, liver disease and cryoglobulinemia. Clin. Exp. Rheumatol. 13: S165-S166.
3. Tran, A., et al. 1995. Anti-GOR and anti-thyroid autoantibodies in patients with chronic hepatitis C. Clin. Immunol. Immunopathol. 77: 127-130.
4. Nelson, D.R., et al. 1996. Anti-GOR in chronic HCV patients with membranoproliferative glomerulonephritis. J. Hepatol. 24: 248.
5. Quiroga, J.A., et al. 1996. Patterns of immune responses to the host-encoded GOR and hepatitis C virus core-derived epitopes with relation to hepatitis C viremia, genotypes, and liver disease severity. J. Infect. Dis. 173: 300-305.
6. Nakano, T., et al. 1998. Lack of anti-GOR antibody among subjects with GB virus C/hepatitis G virus RNA. J. Med. Virol. 55: 129-133.
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CHROMOSOMAL LOCATION

Genetic locus: REXO1L1 (human) mapping to 8q21.2.

PRODUCT

GOR 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see GOR shRNA Plasmid (h): sc-77867-SH and GOR shRNA (h) Lentiviral Particles: sc-77867-V as alternate gene silencing products.

For independent verification of GOR (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-77867A, sc-77867B and sc-77867C.

RESEARCH USE

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

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

GOR siRNA (h) is recommended for the inhibition of GOR 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 µM in 66 µl. 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 GOR gene expression knockdown using RT-PCR Primer: GOR (h)-PR: sc-77867-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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