



Coronin 7 siRNA (h): sc-93115

BACKGROUND

Members of the Coronin family are involved in several cellular processes, including cell cycle progression, apoptosis, cytokinesis and gene regulation. Coronin 7, also known as CORO7, crn7 or POD1, is a 925 amino acid protein that predominantly localizes to cytosol. Coronin 7 is occasionally found on vesicle-like cytoplasmic structures of the Golgi apparatus membrane, where it is involved in Golgi complex protein export and morphology. A member of the evolutionarily conserved WD repeat Coronin family, Coronin 7 contains eight WD repeats and exists as two alternatively spliced isoforms that are encoded by a gene located on human chromosome 16p13.3. Chromosome 16 encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing mal-function with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

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3. Bomont, P., et al. 2000. The gene encoding gigaxonin, a new member of the cytoskeletal BTB/kelch repeat family, is mutated in giant axonal neuropathy. *Nat. Genet.* 26: 370-374.
4. Cho, J.H. 2004. Advances in the genetics of inflammatory bowel disease. *Curr. Gastroenterol. Rep.* 6: 467-473.
5. Rybakina, V., et al. 2004. Coronin 7, the mammalian POD-1 homologue, localizes to the Golgi apparatus. *FEBS Lett.* 573: 161-167.
6. Mathew, C.G., et al. 2004. Genetics of inflammatory bowel disease: progress and prospects. *Hum. Mol. Genet.* 13: R161-R168.
7. Rybakina, V., et al. 2006. Crn7 interacts with AP-1 and is required for the maintenance of Golgi morphology and protein export from the Golgi. *J. Biol. Chem.* 281: 31070-31078.

CHROMOSOMAL LOCATION

Genetic locus: CORO7 (human) mapping to 16p13.3.

PRODUCT

Coronin 7 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Coronin 7 shRNA Plasmid (h): sc-93115-SH and Coronin 7 shRNA (h) Lentiviral Particles: sc-93115-V as alternate gene silencing products.

For independent verification of Coronin 7 (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-93115A, sc-93115B and sc-93115C.

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

Coronin 7 siRNA (h) is recommended for the inhibition of Coronin 7 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 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 Coronin 7 gene expression knockdown using RT-PCR Primer: Coronin 7 (h)-PR: sc-93115-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.

PROTOCOLS

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