

CR16 siRNA (m): sc-142556

BACKGROUND

CR16 (corticosteroids and regional expression protein 16 homolog), also known as WIPF3 (WAS/WASL interacting protein family, member 3), is a 483 amino acid proline-rich cytoplasmic protein that is thought to regulate cytoskeletal organization. A member of both the verprolin and Wiskott-Aldrich syndrome protein (WASP)-interacting protein (WIP) families, CR16 colocalizes with N-WASP (neuronal Wiskott-Aldrich syndrome protein) in tips of growth cone filopodia, primary hippocampal neurons and Sertoli cell-spermatid junctions. CR16 and N-WASP functionally interact to influence spermatogenesis. CR16 is predominantly expressed in brain and testis, contains one WH2 domain, a KLKR motif, three profilin-binding motifs and is encoded by a gene that maps to human chromosome 7p15.1.

REFERENCES

1. Masters, J.N., et al. 1996. Modulation of a novel RNA in brain neurons by glucocorticoid and mineralocorticoid receptors. *Neuroendocrinology* 63: 28-38.
2. Ho, H.Y., et al. 2001. CR16 forms a complex with N-WASP in brain and is a novel member of a conserved proline-rich actin-binding protein family. *Proc. Natl. Acad. Sci. USA* 98: 11306-11311.
3. Zettl, M., et al. 2002. The WH1 and EVH1 domains of WASP and Ena/VASP family members bind distinct sequence motifs. *Curr. Biol.* 12: 1617-1622.
4. Salazar, M.A., et al. 2003. Tuba, a novel protein containing bin/amphiphysin/Rvs and Dbl homology domains, links dynamin to regulation of the actin cytoskeleton. *J. Biol. Chem.* 278: 49031-49043.
5. Suetsugu, S., et al. 2007. Male-specific sterility caused by the loss of CR16. *Genes Cells* 12: 721-733.
6. Online Mendelian Inheritance in Man, OMIM™. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 612432. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: Wipf3 (mouse) mapping to 6 B3.

PRODUCT

CR16 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 CR16 shRNA Plasmid (m): sc-142556-SH and CR16 shRNA (m) Lentiviral Particles: sc-142556-V as alternate gene silencing products.

For independent verification of CR16 (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-142556A, sc-142556B and sc-142556C.

PROTOCOLS

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

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

CR16 siRNA (m) is recommended for the inhibition of CR16 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 CR16 gene expression knockdown using RT-PCR Primer: CR16 (m)-PR: sc-142556-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.