

WSCD1 siRNA (m): sc-155363

BACKGROUND

WSC domain-containing protein 1 (WSCD1) is a 575 amino acid, single-pass membrane protein that contains two WSC domains. The WSC domain is named after the yeast WSC1-WSC4 (cell wall integrity and stress response components 1-4) proteins, which each contain a WSC domain, and is a putative carbohydrate binding domain that spans about 90 amino acids. Containing eight conserved cysteine residues, which are predicted to form disulfide bridges, WSC domains are often found with other domains, such as LDL-receptor class A, PKD and C-type lectin. WSCD1 is encoded by a gene located on human chromosome 17p13.2.

REFERENCES

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3. Ketela, T., et al. 1999. *Saccharomyces cerevisiae* mid2p is a potential cell wall stress sensor and upstream activator of the PKC1-MPK1 cell integrity pathway. J. Bacteriol. 181: 3330-3340.
4. Nakamura, T., et al. 2001. Molecular cloning and characterization of Kremen, a novel kringle-containing transmembrane protein. Biochim. Biophys. Acta 1518: 63-72.
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6. Vay, H.A., et al. 2004. Mutational analysis of the cytoplasmic domain of the WSC1 cell wall stress sensor. Microbiology 150: 3281-3288.
7. Serrano, R., et al. 2006. Signaling alkaline pH stress in the yeast *Saccharomyces cerevisiae* through the WSC1 cell surface sensor and the Slit2 MAPK pathway. J. Biol. Chem. 281: 39785-39795.

CHROMOSOMAL LOCATION

Genetic locus: Wscd1 (mouse) mapping to 11 B4.

PRODUCT

WSCD1 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 WSCD1 shRNA Plasmid (m): sc-155363-SH and WSCD1 shRNA (m) Lentiviral Particles: sc-155363-V as alternate gene silencing products.

For independent verification of WSCD1 (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-155363A, sc-155363B and sc-155363C.

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

WSCD1 siRNA (m) is recommended for the inhibition of WSCD1 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.

GENE EXPRESSION MONITORING

WSCD1 (H-5): sc-515191 is recommended as a control antibody for monitoring of WSCD1 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor WSCD1 gene expression knockdown using RT-PCR Primer: WSCD1 (m)-PR: sc-155363-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.