SANTA CRUZ BIOTECHNOLOGY, INC.

TMEM201 siRNA (h): sc-88432

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The Power to Question

BACKGROUND

TMEM201 (transmembrane protein 201), also known as NET5 or SAMP1 (spindle-associated membrane protein 1), is a 666 amino acid multi-pass membrane protein that exists as two alternatively spliced isoforms. Isoform SAMP1 is a nuclear inner membrane protein that may outline a distinct membrane domain near the mitotic spindle. TMEM201 is post-translationally modified at multiple tyrosine and serine residues and is encoded by a gene that maps to human chromosome 1p36.22. Chromosome 1 spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: TMEM201 (human) mapping to 1p36.22.

PRODUCT

TMEM201 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 TMEM201 shRNA Plasmid (h): sc-88432-SH and TMEM201 shRNA (h) Lentiviral Particles: sc-88432-V as alternate gene silencing products.

For independent verification of TMEM201 (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-88432A, sc-88432B and sc-88432C.

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

TMEM201 siRNA (h) is recommended for the inhibition of TMEM201 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 TMEM201 gene expression knockdown using RT-PCR Primer: TMEM201 (h)-PR: sc-88432-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Martin, T.A., Mansel, R.E. and Jiang, W.G. 2010. Loss of occludin leads to the progression of human breast cancer. Int. J. Mol. Med. 26: 723-734.

RESEARCH USE

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