SANTA CRUZ BIOTECHNOLOGY, INC.

RNF103 siRNA (m): sc-106517

BACKGROUND

RNF103 (E3 ubiquitin-protein ligase RNF103, KF-1) is a 685 amino acid multi-pass membrane protein that contains one RING-type zinc finger. RNF103 localizes to the membrane of the endoplasmic reticulum and likely interacts with DERL1 and VCP. RNF103 is believe to act as an E2-dependent E3 ubiquitin-protein ligase and is probably involved in the ER-associated protein degradation pathway. RNF103 is highly expressed in the normal cerebellum but not in the cerebral cortex. The gene encoding RNF103 maps to human chromosome 2p11.2. As the second largest human chromosome, chromosome 2 makes up approximately 8% of the human genome and contains 237 million bases encoding over 1,400 genes. A number of genetic diseases are linked to genes on chromosome 2.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Rnf103 (mouse) mapping to 6 C1.

RESEARCH USE

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

PRODUCT

RNF103 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see RNF103 shRNA Plasmid (m): sc-106517-SH and RNF103 shRNA (m) Lentiviral Particles: sc-106517-V as alternate gene silencing products.

For independent verification of RNF103 (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-106517A, sc-106517B and sc-106517C.

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

RNF103 siRNA (m) is recommended for the inhibition of RNF103 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 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 RNF103 gene expression knockdown using RT-PCR Primer: RNF103 (m)-PR: sc-106517-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.