SANTA CRUZ BIOTECHNOLOGY, INC.

CT45-1 siRNA (h): sc-90957

BACKGROUND

CT45-1 (cancer/testis antigen 45-1), also known as CT45A1, is a 189 amino acid protein belonging to the cancer/testis (CT) family of antigens. Expressed predominantly in cancer cell lines, CT45-1 is testis specific. The gene encoding CT45-1 maps to human chromosome Xq26.3, representing one of 6 CT family genes clustered on the q arm of chromosome X. Members of this cluster of genes are distinct from other CT antigens, and are thought to be novel therapeutic targets for human cancers. Chromosome X consists of about 153 million base pairs and nearly 1,000 genes. The combination of an X and Y chromosome leads to normal male development, while two copies of X leads to normal female development. More than one copy of the X chromosome with a Y chromosome causes Klinefelter's syndrome. A single copy of X alone leads to Turner's syndrome. More than 2 copies of the X chromosome, in the absence of a Y chromosome, is known as triple X syndrome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CT45A1 (human) mapping to Xq26.3.

PRODUCT

CT45-1 siRNA (h) is a target-specific 19-25 nt siRNA 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 CT45-1 shRNA Plasmid (h): sc-90957-SH and CT45-1 shRNA (h) Lentiviral Particles: sc-90957-V as alternate gene silencing 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 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

CT45-1 siRNA (h) is recommended for the inhibition of CT45-1 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 CT45-1 gene expression knockdown using RT-PCR Primer: CT45-1 (h)-PR: sc-90957-PR (20 µl). 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.