SANTA CRUZ BIOTECHNOLOGY, INC.

CT45 siRNA (h): sc-270547

BACKGROUND

CT45 (cancer/testis antigen family 45, member A4/A6), also known as CT45-6, CT45.6, CT45A4 or CT45A6, is a 189 amino acid protein expressed in testis and in various cancer cell lines. The CT45 family comprises six highly similar (>98% cDNA identity) genes that are clustered in tandem within a 125 kb region on Xq26.3. It is suggested that CT45 is significantly phosphorylated and down-regulated during mitosis. Localized to the nucleus, CT45 may be involved in the malignancy of classical Hodgkin lymphoma in patients and is considered to be a potentially valuable cancer target. CT45 is encoded by a gene located on human chromosome X, which consists of about 153 million base pairs and nearly 1,000 genes. Color blindness, hemophilia and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently, as males carry a single X chromosome.

REFERENCES

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4. Heidebrecht, H.J., et al. 2006. Characterization and expression of CT45 in Hodgkin's lymphoma. Clin. Cancer Res. 12: 4804-4811.
5. Andrade, V.C., et al. 2009. Frequency and prognostic relevance of cancer testis antigen 45 expression in multiple myeloma. Exp. Hematol. 37: 446-449.
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CHROMOSOMAL LOCATION

Genetic locus: CT45A1/CT45A2/CT45A3/CT45A4/CT45A5/CT45A6 (human) mapping to Xq26.3.

PRODUCT

CT45 siRNA (h) is a pool of 2 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 CT45 shRNA Plasmid (h): sc-270547-SH and CT45 shRNA (h) Lentiviral Particles: sc-270547-V as alternate gene silencing products.

For independent verification of CT45 (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-270547A and sc-270547B.

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 siRNA (h) is recommended for the inhibition of CT45 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.

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.