SANTA CRUZ BIOTECHNOLOGY, INC.

Tektin 2 siRNA (h): sc-78872

BACKGROUND

Tektin 2 (TEKT2), also known as TEKTB1 (testicular tektin B1-like protein) or Tektin-t (testicular tektin), is a 430 amino acid protein that belongs to the tektin family. While expressed at high levels in testis, trachea and fetal lung, Tektin 2 is expressed at lower levels in ovary, pituitary, adult lung, fetal brain and fetal kidney. Acting as the structural component of ciliary and flagellar microtubules, Tektin 2 forms filamentous polymers in the walls of those microtubules. Tektin 2 is tyrosine phosphorylated and plays a key role in the assembly or attachment of the inner dynein arm to microtubules in sperm flagella and tracheal cilia. The gene that encodes Tektin 2 consists of more than 4,000 bases and maps to human chromosome 1p34.3. Comprising nearly 8% of the human genome, chromosome 1 spans 260 million base pairs, contains over 3,000 genes and 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.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TEKT2 (human) mapping to 1p34.3.

PRODUCT

Tektin 2 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 Tektin 2 shRNA Plasmid (h): sc-78872-SH and Tektin 2 shRNA (h) Lentiviral Particles: sc-78872-V as alternate gene silencing products.

For independent verification of Tektin 2 (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-78872A, sc-78872B and sc-78872C.

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

Tektin 2 siRNA (h) is recommended for the inhibition of Tektin 2 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 Tektin 2 gene expression knockdown using RT-PCR Primer: Tektin 2 (h)-PR: sc-78872-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.