SANTA CRUZ BIOTECHNOLOGY, INC.

APOBEC3D siRNA (h): sc-72516

BACKGROUND

APOBEC (apolipoprotein B mRNA editing enzyme, catalytic) proteins inhibit retroviruses by deaminating cytosine residues of viral RNA and DNA. The seven APOBEC3 genes or pseudogenes are found in a cluster thought to result from gene duplication on chromosome 22. APOBEC3D (apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like 3D), also known as ARP6, APOBEC3E or APOBEC3DE, is a 386 amino acid protein that is thought to function as a DNA cytidine deaminase that plays a role in foreign DNA removal. A member of the cytidine and deoxycytidylate deaminase family, APOBEC3D is expressed in lymphoid organs and binds zinc as a cofactor. The gene encoding APOBEC3D maps to human chromosome 22q13.1.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: APOBEC3D (human) mapping to 22q13.1.

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.

PRODUCT

APOBEC3D 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 APOBEC3D shRNA Plasmid (h): sc-72516-SH and APOBEC3D shRNA (h) Lentiviral Particles: sc-72516-V as alternate gene silencing products.

For independent verification of APOBEC3D (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-72516A, sc-72516B and sc-72516C.

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

APOBEC3D siRNA (h) is recommended for the inhibition of APOBEC3D 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 APOBEC3D gene expression knockdown using RT-PCR Primer: APOBEC3D (h)-PR: sc-72516-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.