SANTA CRUZ BIOTECHNOLOGY, INC.

AVEN siRNA (m): sc-60234

BACKGROUND

AVEN, a cell death regulator, is an important signal inducer in acute leukemias. AVEN is a highly conserved peripheral membrane protein that protects the cell against the proteolytic activation of caspases as well as Apaf-1 mediated apoptosis by interfering with the ability of Apaf to self-associate. Bcl-2 and Bad also interact with AVEN to prevent apoptosis. AVEN is highly expressed in ovary, heart, thymus, spleen, testis and colon, but can also be detected in other tissues. Erythropoietin and methylprednisolone may play important roles in the expression of AVEN in cardiac tissue, especially after a traumatic brain injury. In young patients suffering from acute lymphoblastic leukemia (ALL), AVEN expression may be a useful tool in prognosis prediction.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Aven (mouse) mapping to 2 E3.

PRODUCT

AVEN 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 AVEN shRNA Plasmid (m): sc-60234-SH and AVEN shRNA (m) Lentiviral Particles: sc-60234-V as alternate gene silencing products.

For independent verification of AVEN (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-60234A, sc-60234B and sc-60234C.

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

AVEN siRNA (m) is recommended for the inhibition of AVEN 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.

GENE EXPRESSION MONITORING

AVEN (48): sc-136455 is recommended as a control antibody for monitoring of AVEN gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor AVEN gene expression knockdown using RT-PCR Primer: AVEN (m)-PR: sc-60234-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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.