SANTA CRUZ BIOTECHNOLOGY, INC.

APPBP2 siRNA (m): sc-141177

BACKGROUND

APPBP2 (β-Amyloid precursor protein-binding protein2), also known as protein interacting with APP tail 1 (PAT1) or Ara67, is a hydrophilic, microtubule binding protein that functions in the trafficking of β-Amyloid precursor protein. It is expressed in a variety of cell types and localizes to the cytoplasm. APPBP2 shares homology with kinesin light chain. It consists of a coiled-coil domain, PKC phosphorylation sites, four imperfect C-terminal tandem repeats, eight tetratricopeptide repeats and N- and C-terminal globular structures. APPBP2 recognizes and binds to the basolateral sorting sequence (BaSS) present in the cytoplasmic domain of the β-Amyloid precursor protein. In addition, APPBP2 interacts with the androgen receptor and suppresses androgen signaling.

REFERENCES

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3. Hirasawa, A., et al. 2003. Association of 17q21-q24 gain in ovarian clear cell adenocarcinomas with poor prognosis and identification of PPM1D and APPBP2 as likely amplification targets. Clin. Cancer Res. 9: 1995-2004.
4. Zhang, Y., et al. 2004. ARA67/PAT1 functions as a repressor to suppress androgen receptor transactivation. Mol. Cell. Biol. 24: 1044-1057.
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6. Coller, J., et al. 2005. General translational repression by activators of mRNA decapping. Cell 122: 875-886.
7. Hsu, C.L., et al. 2005. Androgen receptor (AR) NH_2- and COOH-terminal interactions result in the differential influences on the AR-mediated transactivation and cell growth. Mol. Endocrinol. 19: 350-361.

CHROMOSOMAL LOCATION

Genetic locus: Appbp2 (mouse) mapping to 11 C.

PRODUCT

APPBP2 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 APPBP2 shRNA Plasmid (m): sc-141177-SH and APPBP2 shRNA (m) Lentiviral Particles: sc-141177-V as alternate gene silencing products.

For independent verification of APPBP2 (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-141177A, sc-141177B and sc-141177C.

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

APPBP2 siRNA (m) is recommended for the inhibition of APPBP2 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

APPBP2 (4-RE24): sc-134266 is recommended as a control antibody for monitoring of APPBP2 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 APPBP2 gene expression knockdown using RT-PCR Primer: APPBP2 (m)-PR: sc-141177-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.