Abp1 shRNA Plasmid (m): sc-62520-SH

BACKGROUND
Amiloride-binding protein 1, amine oxidase, copper-containing (Abp1), also known as diamine oxidase (DAO), is a member of the copper/topaquinone oxidase family. The human homolog is known as kidney amine oxidase (KAO), DAO or ABP1. Notable compounds degraded by Abp1 include putrescine, histamine, spermine and spermidine, as well as substances involved in allergic and immune responses, cell proliferation, tissue differentiation, tumor formation, and possibly apoptosis. The secreted Abp1 protein can be detected in the extracellular space of placenta and kidney. Placental Abp1 is thought to play a role in the regulation of female reproductive function.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: Abp1 (mouse) mapping to 6 B2.3.

PRODUCT
Abp1 shRNA Plasmid (m) is a pool of 3 target-specific lentiviral vector plasmids each encoding 19-25 nt (plus hairpin) shRNAs designed to knock down gene expression. Each plasmid contains a puromycin resistance gene for the selection of cells stably expressing shRNA. Each vial contains 20 µg of lyophilized shRNA plasmid DNA. Suitable for up to 20 transfections. Also see Abp1 siRNA (m): sc-62520 and Abp1 shRNA (m) Lentiviral Particles: sc-62520-V as alternate gene silencing products.

RESEARCH USE
The purchase of this product conveys to the buyer the nontransferable right to use the purchased amount of the product and all replicates and derivatives for research purposes conducted by the buyer in his laboratory only (whether the buyer is an academic or for-profit entity). The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party, or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes.

STORAGE AND RESUSPENSION
Store lyophilized shRNA plasmid DNA at 4°C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at 4°C for short term storage or -80°C for long term storage. Avoid repeated freeze thaw cycles.

Resuspend lyophilized shRNA plasmid DNA in 200 µl of the deionized water provided. Resuspension of the shRNA plasmid DNA in 200 µl of deionized water makes a 0.1 µg/µl solution in a 10 mM Tris, 1 mM EDTA buffered solution.

APPLICATIONS
Abp1 shRNA Plasmid (m) is recommended for the inhibition of Abp1 expression in mouse cells.

SUPPORT REAGENTS
For optimal shRNA Plasmid transfection efficiency, Santa Cruz Biotechnology’s shRNA Plasmid Transfection Reagent: sc-108061 (0.2 ml) and shRNA Plasmid Transfection Medium: sc-108062 (20 ml) are recommended. Control shRNAs are available as 20 µg lyophilized plasmid DNA. Each encodes a scrambled shRNA sequence that will not lead to the specific degradation of any known cellular mRNA. Control shRNA Plasmids include: sc-108060, sc-108065 and sc-108066.

GENE EXPRESSION MONITORING
Abp1 (P-16): sc-67658 is recommended as a control antibody for monitoring of Abp1 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 (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:1000) or immunofluorescence (starting dilution 1:100-1:1000) with UltraCruz™ Mounting Medium: sc-24941.

RT-PCR REAGENTS
Semi-quantitative RT-PCR may be performed to monitor Abp1 gene expression knockdown using RT-PCR Primer: Abp1 (m)-PR: sc-62520-PR (20 µl). Annealing temperature for the primers should be 55-60°C and the extension temperature should be 68-72°C.

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