SANTA CRUZ BIOTECHNOLOGY, INC.

ABTB1 siRNA (h): sc-72420

BACKGROUND

ABTB1 (ankyrin repeat and BTB/POZ domain-containing protein 1), also known as elongation factor 1A-binding protein or BPOZ, is a 478 amino acid protein localized to the cytoplasm. ABTB1 contains two ANK repeats and two BTB (POZ) domains. The BTB (POZ) domain is thought to be involved in protein-protein interactions, and may indicate a role of ABTB1 in developmental processes. It has also been suggested that ABTB1 may be a mediator of the PTEN growth-suppressive signaling pathway. ABTB1 is ubiquitously expressed in all fetal tissues, with lower levels of expression found in adult heart. ABTB1 exists as four isoforms produced by alternative splicing.

REFERENCES

1. Dai, K.S., et al. 2000. Molecular cloning and characterization of a novel human gene containing ankyrin repeat and double BTB/POZ domain. Biochem. Biophys. Res. Commun. 273: 991-996.
2. Unoki, M. and Nakamura, Y. 2001. Growth-suppressive effects of BPOZ and EGR2, two genes involved in the PTEN signaling pathway. Oncogene 20: 4457-4465.
3. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 608308. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Colland, F., et al. 2004. Functional proteomics mapping of a human signaling pathway. Genome Res. 14: 1324-1332.
5. Stead, M.A., et al. 2007. A β-sheet interaction interface directs the tetramerisation of the Miz-1 POZ domain. J. Mol. Biol. 373: 820-826.
6. Maezawa, S., et al. 2008. Bood POZ containing gene type 2 is a human counterpart of yeast Btb3p and promotes the degradation of terminal deoxynucleotidyltransferase. Genes Cells 13: 439-457.
7. Koiwai, K., et al. 2008. BPOZ-2 directly binds to eEF1A1 to promote eEF1A1 ubiquitylation and degradation and prevent translation. Genes Cells 13: 593-607.

CHROMOSOMAL LOCATION

Genetic locus: ABTB1 (human) mapping to 3q21.3.

PRODUCT

ABTB1 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 ABTB1 shRNA Plasmid (h): sc-72420-SH and ABTB1 shRNA (h) Lentiviral Particles: sc-72420-V as alternate gene silencing products.

For independent verification of ABTB1 (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-72420A, sc-72420B and sc-72420C.

PROTOCOLS

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

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

ABTB1 siRNA (h) is recommended for the inhibition of ABTB1 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 ABTB1 gene expression knockdown using RT-PCR Primer: ABTB1 (h)-PR: sc-72420-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.