SANTA CRUZ BIOTECHNOLOGY, INC.

BAIAP3 siRNA (h): sc-93527

BACKGROUND

BAIAP3 (BAI1-associated protein 3), also known as BAP3, is a 1,187 amino acid transmembrane protein that contains 2 C2 domains, one MHD1 domain and one MHD2 domain. One of several members of the secretin receptor family, BAIAP3 is preferentially expressed in brain where it functions as an inhibitor of BAI-1 (brain-specific angiogenesis inhibitor I) and is thought to be involved in regulating synaptic functions. Additionally, BAIAP3 plays a role in the regulation of both tumor-associated exocytosis and oncogenic fusion and is a target of the tumor suppressor p53, suggesting that BAIAP3 is involved in cancer proliferation. Two isoforms of BAIAP3 exist due to alternative splicing events.

REFERENCES

1. Shiratsuchi, T., et al. 1998. Cloning and characterization of BAP3 (BAI-associated protein 3), a C2 domain-containing protein that interacts with BAI1. Biochem. Biophys. Res. Commun. 251: 158-165.
2. Nagase, T., et al. 1998. Prediction of the coding sequences of unidentified human genes. XI. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 5: 277-286.
3. Daniels, R.J., et al. 2001. Sequence, structure and pathology of the fully annotated terminal 2 Mb of the short arm of human chromosome 16. Hum. Mol. Genet. 10: 339-352.
4. Chan, A.M., et al. 2002. A putative link between exocytosis and tumor development. Cancer Cell 2: 427-428.
5. Palmer, R.E., et al. 2002. Induction of BAIAP3 by the EWS-WT1 chimeric fusion implicates regulated exocytosis in tumorigenesis. Cancer Cell 2: 497-505.
6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604009. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: BAIAP3 (human) mapping to 16p13.3.

PRODUCT

BAIAP3 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 BAIAP3 shRNA Plasmid (h): sc-93527-SH and BAIAP3 shRNA (h) Lentiviral Particles: sc-93527-V as alternate gene silencing products.

For independent verification of BAIAP3 (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-93527A, sc-93527B and sc-93527C.

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

BAIAP3 siRNA (h) is recommended for the inhibition of BAIAP3 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 BAIAP3 gene expression knockdown using RT-PCR Primer: BAIAP3 (h)-PR: sc-93527-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.