SANTA CRUZ BIOTECHNOLOGY, INC.

HSPBAP1 siRNA (h): sc-78001

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

HSPBAP1 (HSPB (heat shock 27 kDa) associated protein 1), also known as PASS1 (protein associated with small stress protein 1), is a 488 amino acid cytoplasmic protein that contains one JMJC (Jumonji C) domain and shares 80% identity with its rat homolog, PASS1. Widely expressed with highest expression in ovary, thymus and pancreas, HSPBAP1 is thought to play a role in mediating cellular stress responses within the cell. Due to the presence of a JMJC domain, HSPBAP1 may be involved in chromatin remodeling events. Defects or translocations in the gene encoding HSPBAP1 are associated with renal cell carcinoma 1 (RCC1), suggesting a possible role for HSPBAP1 in carcinogenesis. Three isoforms of HSPBAP1 exist due to alternative splicing events.

REFERENCES

1. Liu, C., et al. 2000. Identification and characterization of a novel protein from Sertoli cells, PASS1, that associates with mammalian small stress protein HSP 27. J. Biol. Chem. 275: 18724-18731.
2. Jiang, M., et al. 2001. Molecular cloning and characterization of a novel human gene (HSPBAP1) from human fetal brain. Cytogenet. Cell Genet. 95: 48-51.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608263. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Bodmer, D., et al. 2003. Disruption of a novel gene, DIRC3, and expression of DIRC3-HSPBAP1 fusion transcripts in a case of familial renal cell cancer and t(2;3)(q35;q21). Genes Chromosomes Cancer 38: 107-116.
5. Xi, Z.Q., et al. 2007. HSPBAP1 is found extensively in the anterior temporal neocortex of patients with intractable epilepsy. Synapse 61: 741-747.

CHROMOSOMAL LOCATION

Genetic locus: HSPBAP1 (human) mapping to 3q21.1.

PRODUCT

HSPBAP1 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 HSPBAP1 shRNA Plasmid (h): sc-78001-SH and HSPBAP1 shRNA (h) Lentiviral Particles: sc-78001-V as alternate gene silencing products.

For independent verification of HSPBAP1 (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-78001A, sc-78001B and sc-78001C.

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.

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

HSPBAP1 siRNA (h) is recommended for the inhibition of HSPBAP1 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.

GENE EXPRESSION MONITORING

HSPBAP1 (B-1): sc-374290 is recommended as a control antibody for monitoring of HSPBAP1 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 HSPBAP1 gene expression knockdown using RT-PCR Primer: HSPBAP1 (h)-PR: sc-78001-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.