

# EPSTI1 siRNA (h): sc-105335

## BACKGROUND

EPSTI1 (epithelial-stromal interaction protein 1), also known as BRESI1, is a 318 amino acid protein that is highly expressed in spleen, placenta, small intestine, liver, kidney, thymus, testis and salivary gland. Existing as three isoforms that are formed due to alternative splicing events, EPSTI1 is weakly expressed in normal breast tissue, but is heavily upregulated in breast carcinoma, suggesting an important role for EPSTI1 in tumor formation and/or progression. Additionally, EPSTI1 is found in blood cells from systemic lupus erythematosus (SLE)-afflicted patients, implicating EPSTI1 as a potential protein involved in SLE.

## REFERENCES

1. Nielsen, H.L., et al. 2002. Identification of EPSTI1, a novel gene induced by epithelial-stromal interaction in human breast cancer. *Genomics* 79: 703-710.
2. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607441. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Gudjonsson, T., et al. 2003. To create the correct microenvironment: three-dimensional heterotypic collagen assays for human breast epithelial morphogenesis and neoplasia. *Methods* 30: 247-255.
4. Dunham, A., et al. 2004. The DNA sequence and analysis of human chromosome 13. *Nature* 428: 522-528.
5. Ishii, T., et al. 2005. Isolation and expression profiling of genes upregulated in the peripheral blood cells of systemic lupus erythematosus patients. *DNA Res.* 12: 429-439.

## CHROMOSOMAL LOCATION

Genetic locus: EPSTI1 (human) mapping to 13q14.11.

## PRODUCT

EPSTI1 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see EPSTI1 shRNA Plasmid (h): sc-105335-SH and EPSTI1 shRNA (h) Lentiviral Particles: sc-105335-V as alternate gene silencing products.

For independent verification of EPSTI1 (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-105335A, sc-105335B and sc-105335C.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

EPSTI1 siRNA (h) is recommended for the inhibition of EPSTI1 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  $\mu$ M in 66  $\mu$ l. 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

EPSTI1 (ZZ4): sc-100657 is recommended as a control antibody for monitoring of EPSTI1 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-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor EPSTI1 gene expression knockdown using RT-PCR Primer: EPSTI1 (h)-PR: sc-105335-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.