

## EID-2B siRNA (h): sc-97361

### BACKGROUND

EID-2B (EP300 interacting inhibitor of differentiation 2B), also known as EID3 (EID-2-like inhibitor of differentiation 3), is a 161 amino acid protein that localizes to the nucleus and may exist as either a homodimer or a heterodimer with EID-2. Interacting with HDAC1 and HDAC2, EID-2B functions to repress MyoD-dependent transcription and glucocorticoid receptor (GR)-dependent transcription and may also repress muscle differentiation. The gene encoding EID-2B maps to human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family and Fc receptors (FcRs).

### REFERENCES

1. McKinsey, T.A., Zhang, C.L. and Olson, E.N. 2001. Control of muscle development by dueling HATs and HDACs. *Curr. Opin. Genet. Dev.* 11: 497-504.
2. Ji, A., Dao, D., Chen, J. and MacLellan, W.R. 2003. EID-2, a novel member of the EID family of p300-binding proteins inhibits transactivation by MyoD. *Gene*. 318: 35-43.
3. Miyake, S., Yanagisawa, Y. and Yuasa, Y. 2003. A novel EID-1 family member, EID-2, associates with histone deacetylases and inhibits muscle differentiation. *J. Biol. Chem.* 278: 17060-17065.
4. Sasajima, Y., Tanaka, H., Miyake, S. and Yuasa, Y. 2005. A novel EID family member, EID-3, inhibits differentiation and forms a homodimer or heterodimer with EID-2. *Biochem. Biophys. Res. Commun.* 333: 969-975.
5. Parham, P. 2005. Immunogenetics of killer cell immunoglobulin-like receptors. *Mol. Immunol.* 42: 459-462.

### CHROMOSOMAL LOCATION

Genetic locus: EID2B (human) mapping to 19q13.2.

### PRODUCT

EID-2B 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 EID-2B shRNA Plasmid (h): sc-97361-SH and EID-2B shRNA (h) Lentiviral Particles: sc-97361-V as alternate gene silencing products.

For independent verification of EID-2B (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-97361A, sc-97361B and sc-97361C.

### 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

EID-2B siRNA (h) is recommended for the inhibition of EID-2B 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.

### RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor EID-2B gene expression knockdown using RT-PCR Primer: EID-2B (h)-PR: sc-97361-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.