SANTA CRUZ BIOTECHNOLOGY, INC.

EID-3 siRNA (h): sc-95824

BACKGROUND

EID-3 (EP300-interacting inhibitor of differentiation 3), also known as E1A-like inhibitor of differentiation 3, is a 333 amino acid protein belonging to the NSE4 family. Localizing to nucleus and cytoplasm, EID-3 is highly expressed in testis. EID-3 may interfere with CBP-dependent coactivation by acting as a repressor of nuclear receptor-dependent transcription, and may act as a coinhibitor to other CBP/p300 dependent transcription factors. EID-3 exists as a homodimer or heterodimer with EID-2, and is encoded by a gene that maps to human chromosome 12q23.3. Encoding over 1,100 genes within 132 million bases, chromosome 12 makes up about 4.5% of the human genome. A number of skeletal deformities are linked to chromosome 12 including hypochondrogenesis, achondrogenesis and Kniest dysplasia.

REFERENCES

1. Allen, T.L., et al. 1996. Cytogenetic and molecular analysis in trisomy 12p. Am. J. Med. Genet. 63: 250-256.
2. Yang, W. and Cole, W.G. 1998. Low basal transcripts of the COL2A1 collagen gene from lymphoblasts show alternative splicing of exon 12 in the Kniest form of spondyloepiphyseal dysplasia. Hum. Mutat. Suppl. 1: S1-S2.
3. Trowsdale, J., et al. 2001. The genomic context of natural killer receptor extended gene families. Immunol. Rev. 181: 20-38.
4. Zumkeller, W., et al. 2004. Genotype/phenotype analysis in a patient with pure and complete trisomy 12p. Am. J. Med. Genet. A 129A: 261-264.
5. Sasajima, Y., et al. 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.
6. Nishimura, G., et al. 2005. The phenotypic spectrum of COL2A1 mutations. Hum. Mutat. 26: 36-43.
7. Hu, B., et al. 2005. Qri2/Nse4, a component of the essential Smc5/6 DNA repair complex. Mol. Microbiol. 55: 1735-1750.
8. Bavner, A., et al. 2005. EID3 is a novel EID family member and an inhibitor of CBP-dependent co-activation. Nucleic Acids Res. 33: 3561-3569.

CHROMOSOMAL LOCATION

Genetic locus: EID3 (human) mapping to 12q23.3.

PRODUCT

EID-3 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 EID-3 shRNA Plasmid (h): sc-95824-SH and EID-3 shRNA (h) Lentiviral Particles: sc-95824-V as alternate gene silencing products.

For independent verification of EID-3 (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-95824A, sc-95824B and sc-95824C.

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

EID-3 siRNA (h) is recommended for the inhibition of EID-3 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 EID-3 gene expression knockdown using RT-PCR Primer: EID-3 (h)-PR: sc-95824-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.

PROTOCOLS

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