SANTA CRUZ BIOTECHNOLOGY, INC.

EID-1 siRNA (m): sc-60569

BACKGROUND

E1A-like inhibitor of differentiation-1 (EID-1), an acetyltransferase enzyme, binds both the retinoblastoma protein (Rb), a regulator of cell cycle and tissue specific transcription, and the adenovirus E1A-associated cellular p300 transcriptional co-activator protein. EID-1 inhibits cellular differentiation by blocking the histone acetyltransferase activity of p300. EID-1 also acetylates both histones and non-histone proteins such as NCOA3 co-activator. By acetylating histones, EID-1 gives a specific tag for transcriptional activation. In addition to binding Rb and p300, EID-1 also binds to phosphorylated CREB protein, mediating cAMP gene regulation. EID-1 augments the activity of phosphorylated CREB and activates transcription of cAMP responsive genes as a co-activator.

REFERENCES

1. MacLellan, W.R., et al. 2000. A novel Rb- and p300-binding protein inhibits transactivation by MyoD. Mol. Cell. Biol. 20: 8903-8915.
2. Miyake, S., et al. 2003. A novel EID-1 family member, EID-2, associates with histone deacetylases and inhibits muscle differentiation. J. Biol. Chem. 278: 17060-17065.
3. Ledl, A., et al. 2005. Viral oncoproteins E1A and E7 and cellular LxCxE proteins repress SUMO modification of the retinoblastoma tumor suppressor. Oncogene 24: 3810-3818.
4. Sasajima, Y., et al. 2005. A novel EID family member, EID-3, inhibits differentiation and forms a homodimer or hetero-dimer with EID-2. Biochem. Biophys. Res. Commun. 333: 969-975.

CHROMOSOMAL LOCATION

Genetic locus: Eid1 (mouse) mapping to 2 F1.

PRODUCT

EID-1 siRNA (m) 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-1 shRNA Plasmid (m): sc-60569-SH and EID-1 shRNA (m) Lentiviral Particles: sc-60569-V as alternate gene silencing products.

For independent verification of EID-1 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-60569A, sc-60569B and sc-60569C.

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-1 siRNA (m) is recommended for the inhibition of EID-1 expression in mouse 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-1 gene expression knockdown using RT-PCR Primer: EID-1 (m)-PR: sc-60569-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.