SANTA CRUZ BIOTECHNOLOGY, INC.

ABT1 siRNA (m): sc-140785

BACKGROUND

ABT1 (activator of basal transcription 1) is a nuclear protein that associates with the TATA-binding protein (TBP) and enhances basal transcription activity of class II promoters. ABT1 associates with TBP in HeLa nuclear extracts *in vitro*. Another protein, designated ERF, is a member of the ETS family of transcription factors. The members of the ETS family are grouped because they share a highly conserved DNA binding domain. These factors are involved in growth factor pathways and regulate both proliferation and differentiation. ERF (Ets2 Repressor Factor) is a ubiquitously expressed ets-domain protein that exhibits strong transcriptional repressor activity, suppresses ets-induced transformation and is regulated by MAPK phosphorylation. ERF transcription may be regulated by ets-domain proteins. Additionally, modulation of ERF activity is involved in the transcriptional regulation of genes activated during entry into G_1 phase.

REFERENCES

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2. de Castro, C.M., Rabe, S.M., Langdon, S.D., Fleenor, D.E., Slentz-Kesler, K., Ahmed, M.N., Qumsiyeh, M.B., and Kaufman, R.E. 1997. Genomic structure and chromosomal localization of the novel ETS factor, PE-2 (ERF). Genomics 42: 227-235.
3. Liu, D., Pavlopoulos, E., Modi, W., Moschonas, N., and Mavrothalassitis, G. 1997. ERF: genomic organization, chromosomal localization and promoter analysis of the human and mouse genes. Oncogene 14: 1445-1451.
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5. Locuslink Report (LocusID 29777). http://www.ncbi.nlm.nih.gov/locuslink/

CHROMOSOMAL LOCATION

Genetic locus: Abt1 (mouse) mapping to 13 A3.1.

PRODUCT

ABT1 siRNA (m) is a target-specific 19-25 nt siRNA 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 ABT1 shRNA Plasmid (m): sc-140785-SH and ABT1 shRNA (m) Lentiviral Particles: sc-140785-V as alternate gene silencing products.

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

ABT1 siRNA (m) is recommended for the inhibition of ABT1 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.

GENE EXPRESSION MONITORING

ABT1 (B-9): sc-390233 is recommended as a control antibody for monitoring of ABT1 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 ABT1 gene expression knockdown using RT-PCR Primer: ABT1 (m)-PR: sc-140785-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.