SANTA CRUZ BIOTECHNOLOGY, INC.

AP-2ε siRNA (h): sc-88389

BACKGROUND

AP-2 transcription factor family members include AP-2α, AP-2β, AP-2γ, AP-2δ and AP-2ε, which specifically bind to DNA and regulate transcription of selected genes. AP-2 proteins contain a helix-span-helix motif at their C-terminus and a basic central region that, together, mediate DNA binding and dimerization. AP-2 family members have various roles in apoptosis, development, morphogenesis and cell-cycle control. AP-2ε, also known as TFAP2E or AP2E, is a nuclear protein and is predominantly expressed in skin, HeLa cells, primary keratinocytes and immortalized keratinocytes. AP-2ε binds to DNA as a dimer, associated either as a homodimer or as a heterodimer with other members of the AP-2 family. Due to its high level of expression in skin, AP-2ε is believed to play an important role in skin biology.

REFERENCES

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5. Eckert, D., Buhl, S., Weber, S., Jäger, R. and Schorle, H. 2005. The AP-2 family of transcription factors. Genome Biol. 6: 246.
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7. Orso, F., Fassetta, M., Penna, E., Solero, A., De Filippo, K., Sismondi, P., De Bortoli, M. and Taverna, D. 2007. The AP-2α transcription factor regulates tumor cell migration and apoptosis. Adv. Exp. Med. Biol. 604: 87-95.

CHROMOSOMAL LOCATION

Genetic locus: TFAP2E (human) mapping to 1p34.3.

PRODUCT

AP-2ε 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 AP-2ε shRNA Plasmid (h): sc-88389-SH and AP-2ε shRNA (h) Lentiviral Particles: sc-88389-V as alternate gene silencing products.

For independent verification of AP-2ε (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-88389A, sc-88389B and sc-88389C.

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

AP-2ε siRNA (h) is recommended for the inhibition of AP-2ε 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 AP-2ε gene expression knockdown using RT-PCR Primer: AP-2ε (h)-PR: sc-88389-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.