**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**


**CHROMOSOMAL LOCATION**

Genetic locus: Tcfap2e (mouse) mapping to 4 D2.2.

**PRODUCT**

AP-2ε shRNA (m) Lentiviral Particles are concentrated, transduction-ready viral particles containing a target-specific construct that encodes a 19-25 nt (plus hairpin) shRNA designed to knock down gene expression. Each vial contains 200 µl frozen stock containing 1.0 x 10⁶ infectious units of virus (IFU) in Dulbecco’s Modified Eagle’s Medium with 25 mM HEPES pH 7.3. Suitable for 10-20 transductions. Also see AP-2ε siRNA (m): sc-141134 and AP-2ε shRNA Plasmid (m): sc-141134-SH as alternate gene silencing products.

**APPLICATIONS**

AP-2ε shRNA (m) Lentiviral Particles is recommended for the inhibition of AP-2ε expression in mouse cells.

**SUPPORT REAGENTS**

Control shRNA Lentiviral Particles: sc-108080. Available as 200 µl frozen viral stock containing 1.0 x 10⁶ infectious units of virus (IFU); contains an shRNA construct encoding a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA.

**RT-PCR REAGENTS**

Semi-quantitative RT-PCR may be performed to monitor AP-2ε gene expression knockdown using RT-PCR Primer: AP-2ε (m)-PR: sc-141134-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

**BIOSAFETY**

Lentiviral particles can be employed in standard Biosafety Level 2 tissue culture facilities (and should be treated with the same level of caution as with any other potentially infectious reagent). Lentiviral particles are replication-incompetent and are designed to self-inactivate after transduction and integration of shRNA constructs into genomic DNA of target cells.

**STORAGE**

Store lentiviral particles at -80° C. Stable for at least one year from the date of shipment. Once thawed, particles can be stored at 4° C for up to one week. Avoid repeated freeze thaw cycles.

**RESEARCH USE**

The purchase of this product conveys to the buyer the nontransferable right to use the purchased amount of the product and all replicates and derivatives for research purposes conducted by the buyer in his laboratory only (whether the buyer is an academic or for-profit entity). The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party, or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes.

**PROTOCOLS**

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