

# AP-2 $\epsilon$ (N-12): sc-131393

## BACKGROUND

AP-2 transcription factor family members include AP-2 $\alpha$ , AP-2 $\beta$ , AP-2 $\gamma$ , AP-2 $\delta$  and AP-2 $\epsilon$ , 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-2 $\epsilon$ , also known as TFAP2E or AP2E, is a nuclear protein and is predominantly expressed in skin, HeLa cells, primary keratinocytes and immortalized keratinocytes. AP-2 $\epsilon$  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-2 $\epsilon$  is believed to play an important role in skin biology.

## REFERENCES

- Zhao, F., et al. 2001. Cloning and characterization of a novel mouse AP-2 transcription factor, AP-2 $\delta$ , with unique DNA binding and transactivation properties. *J. Biol. Chem.* 276: 40755-40760.
- Tummala, R., et al. 2003. Molecular cloning and characterization of AP-2 epsilon, a fifth member of the AP-2 family. *Gene* 321: 93-102.
- Feng, W. and Williams, T. 2003. Cloning and characterization of the mouse AP-2 $\epsilon$  gene: a novel family member expressed in the developing olfactory bulb. *Mol. Cell. Neurosci.* 24: 460-475.
- Wang, H.V., et al. 2004. Identification and embryonic expression of a new AP-2 transcription factor, AP-2 $\epsilon$ . *Dev. Dyn.* 231: 128-135.
- Eckert, D., et al. 2005. The AP-2 family of transcription factors. *Genome Biol.* 6: 246.
- Wenke, A.K., et al. 2006. Regulation of Integrin  $\alpha$ 10 expression in chondrocytes by the transcription factors AP-2 $\epsilon$  and Ets-1. *Biochem. Biophys. Res. Commun.* 345: 495-501.
- Orso, F., et al. 2007. The AP-2 $\alpha$  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; Tcfap2e (mouse) mapping to 4 D2.2.

## SOURCE

AP-2 $\epsilon$  (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of AP-2 $\epsilon$  of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-131393 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-131393 X, 200  $\mu$ g/0.1 ml.

## APPLICATIONS

AP-2 $\epsilon$  (N-12) is recommended for detection of AP-2 $\epsilon$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other AP-2 family members.

Suitable for use as control antibody for AP-2 $\epsilon$  siRNA (h): sc-88389, AP-2 $\epsilon$  siRNA (m): sc-141134, AP-2 $\epsilon$  shRNA Plasmid (h): sc-88389-SH, AP-2 $\epsilon$  shRNA Plasmid (m): sc-141134-SH, AP-2 $\epsilon$  shRNA (h) Lentiviral Particles: sc-88389-V and AP-2 $\epsilon$  shRNA (m) Lentiviral Particles: sc-141134-V.

AP-2 $\epsilon$  (N-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

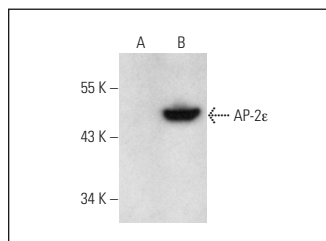
Molecular Weight of AP-2 $\epsilon$ : 46 kDa.

Positive Controls: AP-2 $\epsilon$  (h): 293T Lysate: sc-115856.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



AP-2 $\epsilon$  (N-12): sc-131393. Western blot analysis of AP-2 $\epsilon$  expression in non-transfected: sc-117752 (A) and human AP-2 $\epsilon$  transfected: sc-115856 (B) 293T whole cell lysates.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.