

# AP-4 (C-18): sc-18595

## BACKGROUND

AP-2 transcription factor family members include AP-2 $\alpha$ , AP-2 $\beta$  and AP-2 $\gamma$ , which specifically bind to the DNA consensus sequence CCCCAGGC and initiate transcription of selected genes. AP-2, also known as ERF-1, plays a role in regulating estrogen receptor expression. AP-2 $\beta$ , a splice variant of AP-2 $\alpha$ , inhibits AP-2 activity. In addition to subscribing to the AP-2 complex, AP-2 $\alpha$ , AP-2 $\beta$  and AP-2 $\gamma$  proteins comprise the OB2-1 transcription factor complex. OB2-1 specifically upregulates expression of the proto-oncogene c-ErbB-2, which is overexpressed in 25-30% of breast cancers. AP-2 $\alpha$  may play an important role in the development of ectodermal-derived tissues. Deleterious mutations involving the AP-2 $\alpha$  gene are linked to microphthalmia, corneal clouding and other anterior eye chamber defects. The ubiquitously expressed AP-4 transcription factor specifically binds to the DNA consensus sequence 5'-CAGCTG-3'. AP-4 interacts with promoters for immunoglobulin  $\kappa$  gene families and simian virus 40. AP-4 may enhance the transcription of the human Huntington's disease gene. AP-4 is a helix-loop-helix protein that contains two distinctive leucine repeat elements.

## REFERENCES

- Williams, T., et al. 1988. Cloning and expression of AP-2, a cell-type-specific transcription factor that activates inducible enhancer elements. *Genes Dev.* 2: 1557-1569.
- Buettner, R., et al. 1993. An alternatively spliced mRNA from the AP-2 gene encodes a negative regulator of transcriptional activation by AP-2. *Mol. Cell. Biol.* 13: 4174-4185.

## CHROMOSOMAL LOCATION

Genetic locus: TFAP4 (human) mapping to 16p13.3; Tcfap4 (mouse) mapping to 16 A1.

## SOURCE

AP-4 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of AP-4 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-18595 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-18595 X, 200  $\mu$ g/0.1 ml.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

AP-4 (C-18) is recommended for detection of AP-4 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).

AP-4 (C-18) is also recommended for detection of AP-4 in additional species, including equine, canine and bovine.

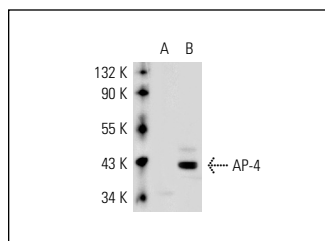
Suitable for use as control antibody for AP-4 siRNA (h): sc-37690, AP-4 siRNA (m): sc-37691, AP-4 shRNA Plasmid (h): sc-37690-SH, AP-4 shRNA Plasmid (m): sc-37691-SH, AP-4 shRNA (h) Lentiviral Particles: sc-37690-V and AP-4 shRNA (m) Lentiviral Particles: sc-37691-V.

AP-4 (C-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of AP-4: 48 kDa.

Positive Controls: AP-4 (h): 293T Lysate: sc-176202 or mouse liver extract: sc-2256.

## DATA



AP-4 (C-18): sc-18595. Western blot analysis of AP-4 expression in non-transfected: sc-110760 (A) and human AP-4 transfected: sc-111027 (B) 293 whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **AP-4 (A-8): sc-377042** or **AP-4 (F-1): sc-376977**, our highly recommended monoclonal alternatives to AP-4 (C-18).