

# AP-2 $\alpha$ (C-18): sc-184

## 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 eRF1, plays a role in regulating estrogen receptor expression. A splice variant of AP-2 $\alpha$ , AP-2 $\beta$ , inhibits AP-2 activity. Besides subscribing to the AP-2 complex, AP-2 $\alpha$ , AP-2 $\beta$  and AP-2 $\gamma$  proteins compose 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. The gene encoding AP-2 $\alpha$  maps to human chromosome 6p24. 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.

## SOURCE

AP-2 $\alpha$  (C-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of AP-2 $\alpha$  of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-184 X, 100  $\mu$ g/0.1 ml.

Blocking peptide available for competition studies, sc-184 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

AP-2 $\alpha$  (C-18) is recommended for detection of AP-2 $\alpha$  and, to a lesser extent, AP-2 $\beta$  and AP-2 $\gamma$  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), immunohistochemistry (including paraffin-embedded sections) (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-2 $\alpha$  (C-18) is also recommended for detection of AP-2 $\alpha$  and to a lesser extent, AP-2 $\beta$  and AP-2 $\gamma$  in additional species, including equine, canine, bovine, porcine and avian.

AP-2 $\alpha$  (C-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of AP-2 $\alpha$ : 48 kDa.

Positive Controls: ZR-75-1 cell lysate: sc-2241, HeLa nuclear extract: sc-2120 or HeLa whole cell lysate: sc-2200.

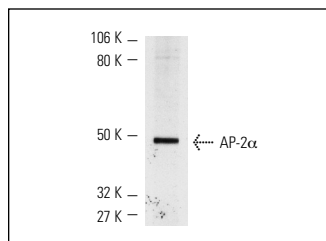
## RESEARCH USE

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

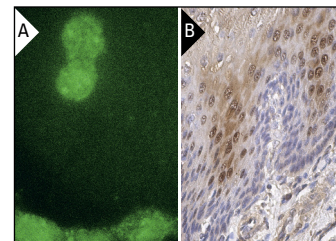
## STORAGE

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

## DATA



AP-2 $\alpha$  (C-18): sc-184. Western blot analysis of AP-2 $\alpha$  expression in phorbol ester-induced HeLa nuclear extract.



AP-2 $\alpha$  (C-18): sc-184. Nuclear immunofluorescence staining of methanol-fixed, phorbol ester-induced HeLa cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing nuclear staining of squamous epithelial cells (B).

## SELECT PRODUCT CITATIONS

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Try **AP-2 $\alpha$  (3B5): sc-12726** or **AP-2 $\alpha$  (D-12): sc-25343**, our highly recommended monoclonal alternatives to AP-2 $\alpha$  (C-18). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **AP-2 $\alpha$  (3B5): sc-12726**.