

AP-4 (h): 293 Lysate: sc-111027

BACKGROUND

AP-2 transcription factor family members include AP-2 α , AP-2 β and AP-2 γ , which specifically bind to the DNA consensus sequence CCCAGGC and initiate transcription of selected genes. AP-2, also known as ERF-1, plays a role in regulating estrogen receptor expression. AP-2 β , a splice variant of AP-2 α , inhibits AP-2 activity. In addition to subscribing to the AP-2 complex, AP-2 α , AP-2 β and AP-2 γ 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 α may play an important role in the development of ectodermal-derived tissues. Deleterious mutations involving the AP-2 α 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 κ 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

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2. Hu, Y.F., et al. 1990. Transcription factor AP-4 contains multiple dimerization domains that regulate dimer specificity. *Genes Dev.* 4: 1741-1752.
3. Moser, M., et al. 1995. Cloning and characterization of a second AP-2 transcription factor: AP-2 β . *Development* 121: 2779-2788.
4. Williamson, J.A., et al. 1996. Chromosomal mapping of the human and mouse homologues of two new members of the AP-2 family of transcription factors. *Genomics* 35: 262-264.
5. Boshier, J.M., et al. 1996. A family of AP-2 proteins regulates c-ErbB-2 expression in mammary carcinoma. *Oncogene* 13: 1701-1707.
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7. Moser, M., et al. 1997. Comparative analysis of AP-2 α and AP-2 β gene expression during murine embryogenesis. *Dev. Dyn.* 208: 115-124.
8. Davies, A.F., et al. 1999. An interstitial deletion of 6p24-p25 proximal to the FKHL7 locus and including AP-2 α that affects anterior eye chamber development. *J. Med. Genet.* 36: 708-710.

CHROMOSOMAL LOCATION

Genetic locus: TFAP4 (human) mapping to 16p13.3.

PRODUCT

AP-4 (h): 293 Lysate represents a lysate of human AP-4 transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

AP-4 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive AP-4 antibodies. Recommended use: 10-20 μ l per lane.

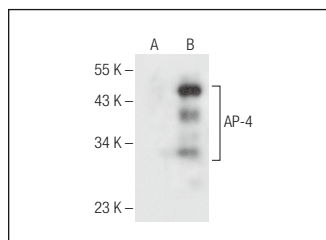
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

AP-4 (F-1): sc-376977 is recommended as a positive control antibody for Western Blot analysis of enhanced human AP-4 expression in AP-4 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



AP-4 (F-1): sc-376977. 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 for detailed protocols and support products.