

AP-2 γ (h2): 293T Lysate: sc-116386

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. Besides subscribing to the AP-2 complex, AP-2 α , AP-2 β and AP-2 γ 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 α maps to human chromosome 6p24.3. 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

1. 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.
2. 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.
3. Moser, M., et al. 1995. Cloning and characterization of a second AP-2 transcription factor: AP-2 β . *Development* 121: 2779-2788.
4. Boshier, J.M., et al. 1996. A family of AP-2 proteins regulates c-ErbB-2 expression in mammary carcinoma. *Oncogene* 13: 1701-1707.
5. 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.
6. McPherson, L.A., et al. 1997. Identification of ERF-1 as a member of the AP-2 transcription factor family. *Proc. Natl. Acad. Sci. USA* 94: 4342-4347.
7. Eloranta, J.J., et al. 2002. Transcription factor AP-2 interacts with the SUMO-conjugating enzyme UBC9 and is sumoylated *in vivo*. *J. Biol. Chem.* 277: 30798-30804.

CHROMOSOMAL LOCATION

Genetic locus: TFAP2C (human) mapping to 20q13.31.

PRODUCT

AP-2 γ (h2): 293T Lysate represents a lysate of human AP-2 γ transfected 293T 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-2 γ (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive AP-2 γ antibodies. Recommended use: 10-20 μ l per lane.

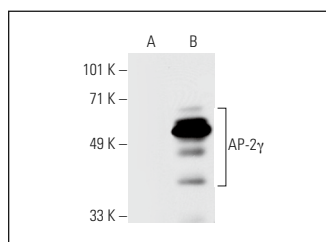
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

AP-2 γ (H-77): sc-53162 is recommended as a positive control antibody for Western Blot analysis of enhanced human AP-2 γ expression in AP-2 γ transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

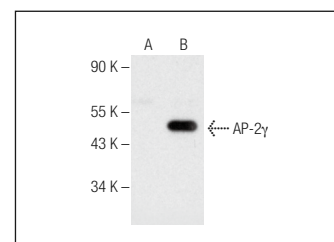
RECOMMENDED SUPPORT REAGENTS

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-2 γ (AP2g 6E4/4): sc-53162. Western blot analysis of AP-2 γ expression in non-transfected: sc-117752 (A) and human AP-2 γ transfected: sc-116386 (B) 293T whole cell lysates.



AP-2 γ (B-9): sc-377458. Western blot analysis of AP-2 γ expression in non-transfected: sc-117752 (A) and human AP-2 γ transfected: sc-116386 (B) 293T 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.