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# AP-2 $\gamma$ (h2): 293T Lysate: sc-116386

## 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 CCCCCAGGC 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. 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 6p24.3. 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

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- Bosher, 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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- Eloranta, J.J., et al. 2002. Transcription factor AP-2 interacts with the SUMO-conjugating enzyme UBC9 and is sumulated *in vivo*. *J. Biol. Chem.* 277: 30798-30804.

## CHROMOSOMAL LOCATION

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

## PRODUCT

AP-2 $\gamma$  (h2): 293T Lysate represents a lysate of human AP-2 $\gamma$  transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ 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 $\gamma$  (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive AP-2 $\gamma$  antibodies. Recommended use: 10-20  $\mu$ l per lane.

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

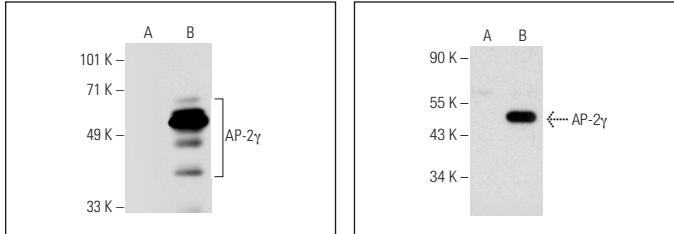
AP-2 $\gamma$  (H-77): sc-53162 is recommended as a positive control antibody for Western Blot analysis of enhanced human AP-2 $\gamma$  expression in AP-2 $\gamma$  transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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 $\gamma$  (AP2g 6E4/4): sc-53162. Western blot analysis of AP-2 $\gamma$  expression in non-transfected: sc-117752 (**A**) and human AP-2 $\gamma$  transfected: sc-116386 (**B**) 293T whole cell lysates.

AP-2 $\gamma$  (B-9): sc-377458. Western blot analysis of AP-2 $\gamma$  expression in non-transfected: sc-117752 (**A**) and human AP-2 $\gamma$  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](http://www.scbt.com) for detailed protocols and support products.