

AP-2 β (G-7): sc-390135

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 CCCCAGGC 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. 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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- 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.
- Moser, M., et al. 1995. Cloning and characterization of a second AP-2 transcription factor: AP-2 β . *Development* 121: 2779-2788.
- Bosher, J.M., et al. 1996. A family of AP-2 proteins regulates c-erbB-2 expression in mammary carcinoma. *Oncogene* 13: 1701-1707.
- 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.
- McPherson, L.A., et al. 1997. Identification of ERF-1 as a member of the AP2 transcription factor family. *Proc. Natl. Acad. Sci. USA* 94: 4342-4347.

CHROMOSOMAL LOCATION

Genetic locus: TFAP2B (human) mapping to 6p12.3; Tfp2b (mouse) mapping to 1 A3.

SOURCE

AP-2 β (G-7) is a mouse monoclonal antibody raised against amino acids 130-216 of AP-2 β of human origin.

PRODUCT

Each vial contains 200 μ g IgM kappa light chain 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-390135 X, 200 μ g/0.1 ml.

APPLICATIONS

AP-2 β (G-7) is recommended for detection of AP-2 β of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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-2 β (G-7) is also recommended for detection of AP-2 β in additional species, including equine, canine and bovine.

Suitable for use as control antibody for AP-2 β siRNA (h): sc-37687, AP-2 β siRNA (m): sc-37688, AP-2 β shRNA Plasmid (h): sc-37687-SH, AP-2 β shRNA Plasmid (m): sc-37688-SH, AP-2 β shRNA (h) Lentiviral Particles: sc-37687-V and AP-2 β shRNA (m) Lentiviral Particles: sc-37688-V.

AP-2 β (G-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

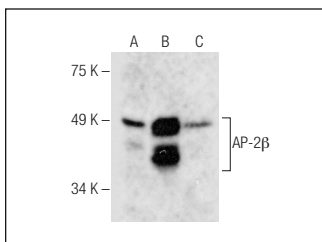
Molecular Weight of AP-2 β : 47 kDa.

Positive Controls: AP-2 β (h): 293T Lysate: sc-113759, KNRK whole cell lysate: sc-2214 or A-431 whole cell lysate: sc-2201.

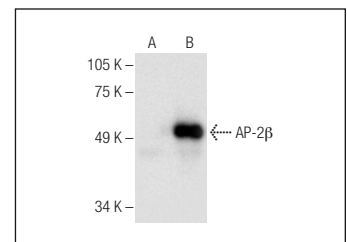
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



AP-2 β (G-7): sc-390135. Western blot analysis of AP-2 β expression in KNRK (A), ZR-75-1 (B) and A-431 (C) whole cell lysates.



AP-2 β (G-7): sc-390135. Western blot analysis of AP-2 β expression in non-transfected: sc-117752 (A) and human AP-2 β transfected: sc-113759 (B) 293T whole cell lysates.

STORAGE

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

RESEARCH USE

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