

AP-2 β (D-20): sc-31932

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. A splice variant of AP-2 α , AP-2 β , 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. 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

- 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.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: TFAP2B (human) mapping to 6p12.3; Tcfap2b (mouse) mapping to 1 A3.

SOURCE

AP-2 β (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AP-2 β of human origin.

PRODUCT

Each vial contains 200 μ 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-31932 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-31932 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

AP-2 β (D-20) is recommended for detection of AP-2 β of mouse, rat and human Western Blotting (starting dilution 1:200, 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 (D-20) is also recommended for detection of AP-2 β in additional species, including equine, canine, bovine, porcine and avian.

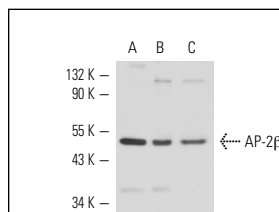
Suitable for use as control antibody for AP-2 β siRNA (h): sc-37687, AP-2 β siRNA (m): sc-37688, AP-2 β shRNA Plasmid (h): sc-37687-SH, AP-2 β shRNA Plasmid (m): sc-37688-SH, AP-2 β shRNA (h) Lentiviral Particles: sc-37687-V and AP-2 β shRNA (m) Lentiviral Particles: sc-37688-V.

AP-2 β (D-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

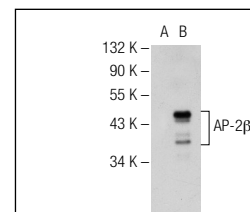
Molecular Weight of AP-2 β : 50 kDa.

Positive Controls: AP-2 β (h): 293T Lysate: sc-113759, A-431 whole cell lysate: sc-2201 or ZR-75-1 cell lysate: sc-2241.

DATA



AP-2 β (D-20): sc-31932. Western blot analysis AP-2 β expression in ZR-75-1 (A), A-431 (B) and An3 CA (C) whole cell lysates.



AP-2 β (D-20): sc-31932. 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **AP-2 β (C-6): sc-390119** or **AP-2 β (E-8): sc-390281**, our highly recommended monoclonal alternatives to AP-2 β (D-20).