

AP-2 α (AP2a 8G8/5): sc-53164

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. 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.

CHROMOSOMAL LOCATION

Genetic locus: TFAP2A (human) mapping to 6p24.3; Tcfap2a (mouse) mapping to 13 A3.3.

SOURCE

AP-2 α (AP2a 8G8/5) is a mouse monoclonal antibody raised against AP-2 α fusion protein of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

AP-2 α (8G8/5) is recommended for detection of AP-2 α of mouse, rat and human origin by 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with AP-2 β or AP-2 γ .

Suitable for use as control antibody for AP-2 α siRNA (h): sc-105074, AP-2 α siRNA (m): sc-29697, AP-2 α shRNA Plasmid (h): sc-105074-SH, AP-2 α shRNA Plasmid (m): sc-29697-SH, AP-2 α shRNA (h) Lentiviral Particles: sc-105074-V and AP-2 α shRNA (m) Lentiviral Particles: sc-29697-V.

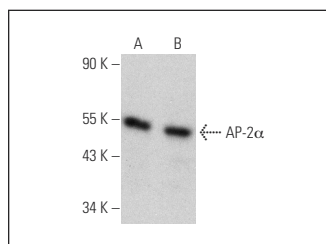
Molecular Weight of AP-2 α : 48 kDa.

Positive Controls: AP-2 α (m): 293T Lysate: sc-118446, ZR-75-1 cell lysate: sc-2241 or JAR cell lysate: sc-2276.

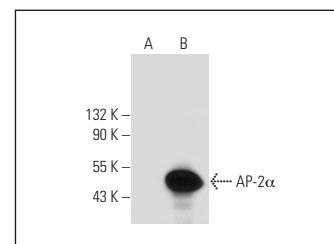
RECOMMENDED SUPPORT REAGENTS

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, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (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 α (8G8/5): sc-53164. Western blot analysis of AP-2 α expression in ZR-75-1 (A) and JAR (B) whole cell lysates.



AP-2 α (8G8/5): sc-53164. Western blot analysis of AP-2 α expression in non-transfected: sc-117752 (A) and mouse AP-2 α transfected: sc-118446 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Gho, C.G., et al. 2016. Isolation, expansion and neural differentiation of stem cells from human plucked hair: a further step towards autologous nerve recovery. Cytotechnology 68: 1849-1858.

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.



See **AP-2 α (3B5): sc-12726** for AP-2 α antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.