

AP-2 γ (H-77): sc-8977

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.

CHROMOSOMAL LOCATION

Genetic locus: TFAP2C (human) mapping to 20q13.31; Tfap2c (mouse) mapping to 2 H3.

SOURCE

AP-2 γ (H-77) is a rabbit polyclonal antibody raised against amino acids 145-221 of AP-2 γ 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-8977 X, 200 μ g/0.1 ml.

APPLICATIONS

AP-2 γ (H-77) is recommended for detection of AP-2 γ 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

AP-2 γ (H-77) is also recommended for detection of AP-2 γ in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for AP-2 γ siRNA (h): sc-29696, AP-2 γ siRNA (m): sc-37689, AP-2 γ shRNA Plasmid (h): sc-29696-SH, AP-2 γ shRNA Plasmid (m): sc-37689-SH, AP-2 γ shRNA (h) Lentiviral Particles: sc-29696-V and AP-2 γ shRNA (m) Lentiviral Particles: sc-37689-V.

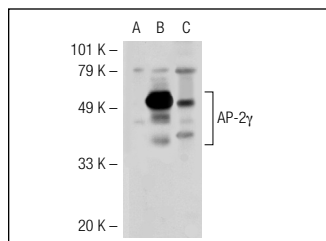
AP-2 γ (H-77) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of AP-2 γ : 48 kDa.

STORAGE

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

DATA



AP-2 γ (H-77): sc-8977. Western blot analysis of AP-2 γ expression in non-transfected 293T: sc-117752 (A), human AP-2 γ transfected 293T: sc-116386 (B) and HeLa (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Zhu, C.H., et al. 2001. A family of AP-2 proteins down-regulate manganese superoxide dismutase expression. *J. Biol. Chem.* 276: 14407-14413.
2. Nurmio, M., et al. 2009. Effect of childhood acute lymphoblastic leukemia therapy on spermatogonia populations and future fertility. *J. Clin. Endocrinol. Metab.* 94: 2119-2122.
3. Yamaji, M., et al. 2010. Functional reconstruction of NANOS3 expression in the germ cell lineage by a novel transgenic reporter reveals distinct subcellular localizations of NANOS3. *Reproduction* 139: 381-393.
4. Childs, A.J., et al. 2010. BMP signaling in the human fetal ovary is developmentally regulated and promotes primordial germ cell apoptosis. *Stem Cells* 28: 1368-1378.
5. Kidder, B.L., et al. 2010. Examination of transcriptional networks reveals an important role for TCFAP2C, SMARCA4, and EOMES in trophoblast stem cell maintenance. *Genome Res.* 20: 458-472.
6. Weber, S., et al. 2010. Critical function of AP-2 γ /TCFAP2C in mouse embryonic germ cell maintenance. *Biol. Reprod.* 82: 214-223.
7. Flucke, U., et al. 2010. Distinguishing medullary carcinoma of the breast from high-grade hormone receptor-negative invasive ductal carcinoma: an immunohistochemical approach. *Histopathology* 56: 852-859.
8. Berg, D.K., et al. 2011. Trophoblast lineage determination in cattle. *Dev. Cell* 20: 244-255.
9. Hou, M., et al. 2011. Ontogenesis of Ap-2 γ expression in rat testes. *Sex. Dev.* 5: 188-196.
10. Wu, L., et al. 2012. Abnormal regulation for progesterone production in placenta with prenatal cocaine exposure in rats. *Placenta* 33: 977-981.

RESEARCH USE

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