DATASHEET

AP2 alpha/beta Rabbit Polyclonal Antibody

CAT. NO. APA07624

KEY FEATURES

Target	AP2 alpha/beta	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat, Chicken, Pig, Sheep	Clonality	Polyclonal
Applications	WB, IHC, IF/ICC, ChIP, EMSA	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

BACKGROUND

Sequence-specific DNA-binding protein that interacts with inducible viral and cellular enhancer elements to regulate transcription of selected genes. AP-2 factors bind to the consensus sequence 5'-GCCNNNGGC-3' and activate genes involved in a large spectrum of important biological functions including proper eye, face, body wall, limb and neural tube development. They also suppress a number of genes including MCAM/MUC18, C/EBP alpha and MYC. AP-2-alpha is the only AP-2 protein required for early morphogenesis of the lens vesicle. Together with the CITED2 coactivator, stimulates the PITX2 P1 promoter transcription activation. Associates with chromatin to the PITX2 P1 promoter region.

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:100 - 1:200
IF/ICC	1:100 - 1:500
ChIP	1:100 - 1:500
EMSA	Use at an assay dependent dilution

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Rabbit polyclonal antibody to AP2 alpha/beta
Specificity	Recognizes endogenous levels of AP2 alpha/beta protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human AP2 alpha/beta. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 48; Observed: 48 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	TFAP2A; AP2TF; TFAP2; Transcription factor AP-2-alpha; AP2-alpha; AP-2 transcription factor; Activating enhancer-binding protein 2-alpha; Activator protein 2; AP-2; TFAP2B; Transcription factor AP-2-beta; AP2-beta; Activating enhancer-binding protein 2-beta
Gene Symbol	TFAP2A; TFAP2B
Entrez Gene	7020(Human); 21418; 21419(Mouse)
SwissProt	P05549; Q92481(Human); P34056; Q61313(Mouse); P58197(Rat)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

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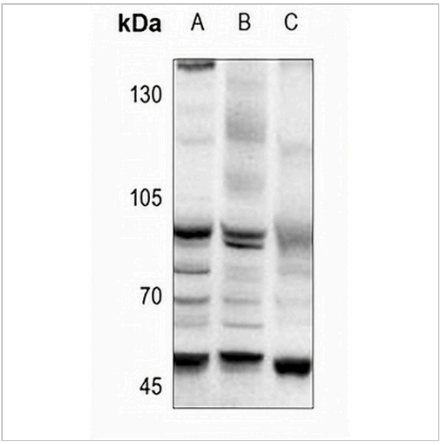
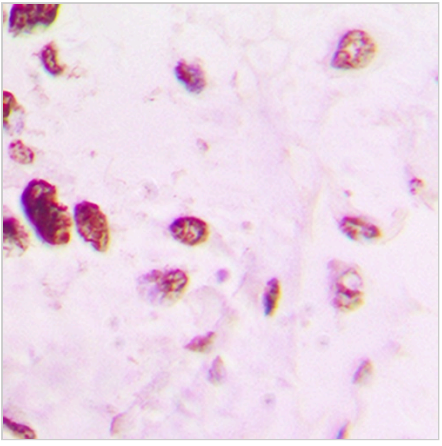
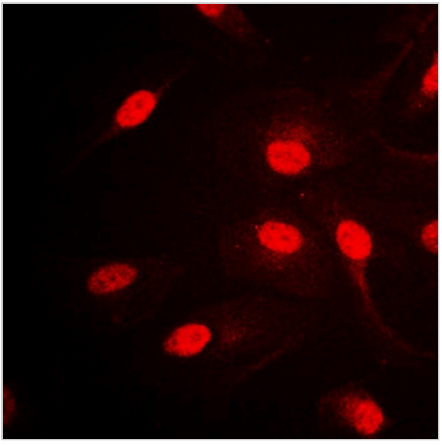
DATA



Western blot analysis of AP2 alpha/beta expression in PC3 (A), MCF7 (B), Myla2059 (C) whole cell lysates. (Predicted band size: 48; 50 kD; Observed band size: 48 kD)



Immunohistochemical analysis of AP2 alpha/beta staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of AP2 alpha/beta staining in HepG2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

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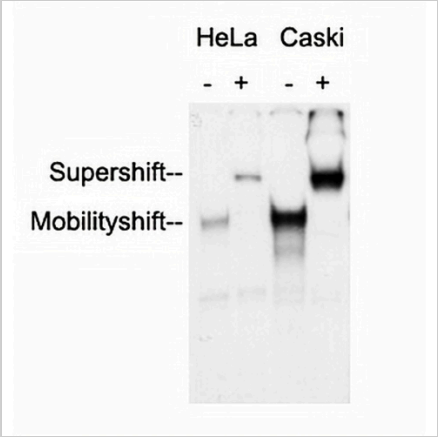
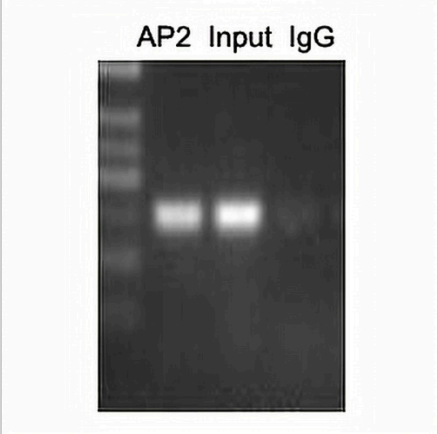
DATA (CONTINUED)



Anti-AP2 alpha/beta Antibody was used in an Electrophoretic Mobility Shift Assay (EMSA) to supershift the protein-DNA complex. Radiolabelled, double-stranded DNA oligonucleotides (10.000 cpm per lane) harbouring a binding site for AP2 alpha/beta were incubated with each 2 ug of nuclear extract (NE) from HeLa and Caski cells, respectively. Samples were incubated for 30 minutes at room temperature to allow the formation of protein-DNA complexes. Anti-AP2 alpha/beta Antibody were added to the samples (as indicated) and incubated for further 60 minutes at 4°C. Samples were separated in a 5.5% PAGE. The Gel was dried under vacuum and for autoradiography a X-ray film was exposed with an intensifying screen for 2 days at -80°C. Specific protein-DNA complexes were quantitatively supershifted with Anti-AP2 alpha/beta Antibody, verifying the binding of AP2 alpha/beta to the DNA oligonucleotide.



ChIP analysis of Cervical cancer cell lines lysate, incubated for 12 hours at 4°C. Cross-linking (X-ChIP) using formaldehyde for 10 minutes. Detection step: Semiquantitative PCR. Positive control: Tumor cell lines Hela. Negative control: Human primary keratinocytes.

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.