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Anti-AP2 alpha/beta Antibody

Catalog # AP51553

Product Information

Application	WB, IHC, CHIP, IF/IC, EMSA
Primary Accession	P05549
Other Accession	Q92481
Reactivity	Human, Mouse, Rat, Pig, Chicken, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	48062

Additional Information

Gene ID	7020
Other 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
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human AP2 alpha/beta. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 CHIP~~N/A IF/IC~~N/A EMSA~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	TFAP2A
Synonyms	AP2TF, TFAP2
Function	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 can also suppress a number of genes including MCAM/MUC18 and C/EBP alpha. Is involved in the negative regulation of Wnt canonical signaling, and is a transcriptional repressor of MYC (PubMed:33000225). AP-2-alpha is the only AP-2 protein required for early morphogenesis of the lens vesicle. Together

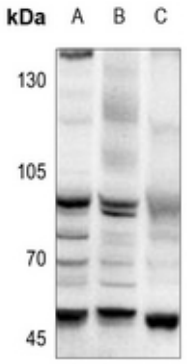
with the CITED2 coactivator, stimulates the PITX2 P1 promoter transcription activation. Associates with chromatin to the PITX2 P1 promoter region.

Cellular Location Nucleus

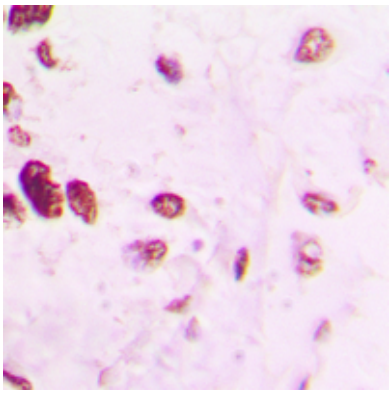
References

Williams T.,et al.Genes Dev. 2:1557-1569(1988).
Buettner R.,et al.Mol. Cell. Biol. 13:4174-4185(1993).
Bauer R.,et al.Nucleic Acids Res. 22:1413-1420(1994).
Mungall A.J.,et al.Nature 425:805-811(2003).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.

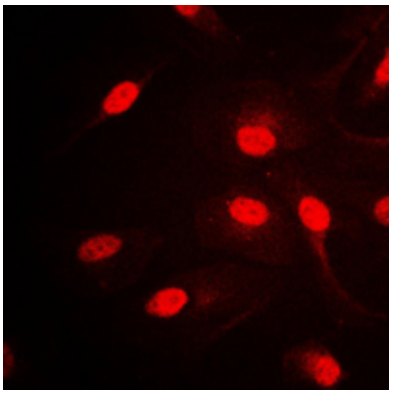
Images



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)

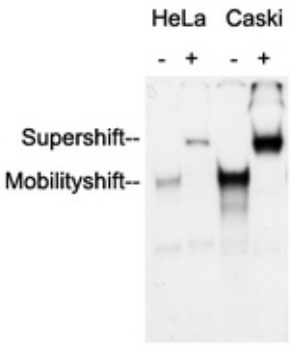


Immunohistochemical analysis of AP2 alpha/beta staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and 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.

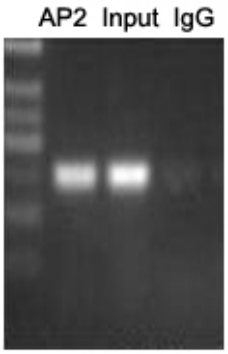


Immunofluorescent analysis of AP2 alpha/beta staining in HepG2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight 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.

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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.