abcam

Product datasheet

Anti-Transcription factor AP-2-alpha antibody [EPR2688(2)] - BSA and Azide free ab236043

KO VALIDATED Recombinant RabMAb

4 Images

Overview

Product name	Anti-Transcription factor AP-2-alpha antibody [EPR2688(2)] - BSA and Azide free
Description	Rabbit monoclonal [EPR2688(2)] to Transcription factor AP-2-alpha - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, IP, ICC/IF, Flow Cyt, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide within Human Transcription factor AP-2-alpha aa 100-200. The exact sequence is proprietary.
Positive control	IHC-P: Human breast carcinoma tissue.
General notes	Ab236043 is the carrier-free version of ab108311. This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes. Our carrier-free formats are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency. Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. ab236043 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm. *Maxpar® is a trademark of Fluidigm Canada Inc.* Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents. This product is a recombinant rabbit monoclonal antibody.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.

Storage buffer	Constituent: PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR2688(2)
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab236043** in the following tested applications.

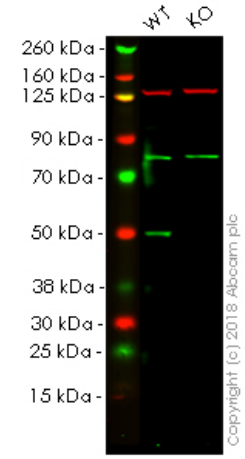
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.
IP		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
Flow Cyt		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 48 kDa.

Target

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 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.
Involvement in disease	Defects in TFAP2A are the cause of branchiooculofacial syndrome (BOFS) [MIM:113620]; also known as branchial clefts with characteristic facies, growth retardation, imperforate nasolacrimal duct, and premature aging or lip pseudocleft-hemangiomatous branchial cyst syndrome. BOFS is a rare autosomal dominant cleft palate craniofacial disorder with variable expressivity. The major features include cutaneous anomalies, ocular anomalies, characteristic facial appearance (malformed pinnae, oral clefts), and, less commonly, renal and ectodermal (dental and hair) anomalies.
Sequence similarities	Belongs to the AP-2 family.
Domain	The WW-binding motif mediates interaction with WWOX.
Post-translational modifications	Sumoylated on Lys-10; which inhibits transcriptional activity.
Cellular localization	Nucleus.

Images



Western blot - Anti-Transcription factor AP-2-alpha antibody [EPR2688(2)] - BSA and Azide free (ab236043)

All lanes : Anti-Transcription factor AP-2-alpha antibody [EPR2688(2)] (ab108311) at 1/1000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : TFAP2A (AP2A) knockout HAP1 whole cell lysate

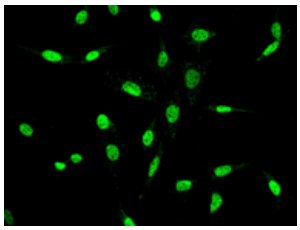
Lysates/proteins at 20 µg per lane.

Predicted band size: 48 kDa

Lanes 1 - 2: Merged signal (red and green). Green - ab108311 observed at 48 kDa. Red - loading control, ab9484, observed at 37 kDa.

ab108311 was shown to recognize 0 in wild-type HAP1 cells as signal was lost at the expected MW in TFAP2A (AP2A) knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and TFAP2A (AP2A) knockout samples were subjected to SDS-PAGE. Ab108311 and ab9484 (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

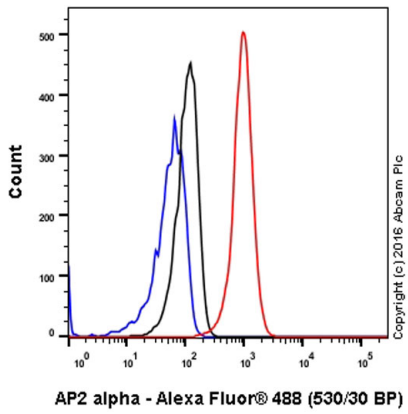
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab108311).



Immunocytochemistry/ Immunofluorescence - Anti-Transcription factor AP-2-alpha antibody [EPR2688(2)] - BSA and Azide free (ab236043)

ab108311 at 1/250 dilution staining transcription factor AP-2-alpha in HeLa cells.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab108311).



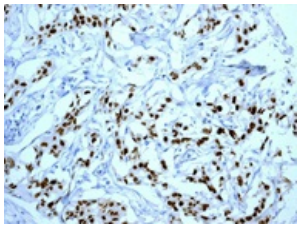
Flow Cytometry - Anti-Transcription factor AP-2-alpha antibody [EPR2688(2)] - BSA and Azide free (ab236043)

ab108311 staining transcription factor AP-2-alpha in the human cell line HeLa (human cervix adenocarcinoma) by flow cytometry. Cells were fixed with 4% paraformaldehyde, permiabilised with 90% methanol and the sample was incubated with the primary antibody at a dilution of 1/140. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000 was used as the secondary antibody.

Isoytype control: Rabbit monoclonal IgG (Black)

Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab108311).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Transcription factor AP-2-alpha antibody [EPR2688(2)] - BSA and Azide free (ab236043)

ab108311 at 1/100 dilution staining transcription factor AP-2-alpha in paraffin embedded human breast carcinoma tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab108311).

Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.

Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.

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