abcam

Product datasheet

Anti-Transcription factor AP-2-alpha antibody [EPR2688(2)] ab108311



ייבער RabMAb

**** 2 Abreviews 22 References 画像数 10

製品の概要

製品名 Anti-Transcription factor AP-2-alpha antibody [EPR2688(2)]

製品の詳細 Rabbit monoclonal [EPR2688(2)] to Transcription factor AP-2-alpha

由来種 Rabbit

アプリケーション 適用あり: ICC/IF, WB, IHC-P, Flow Cyt (Intra), IP

種交差性 交差種: Mouse. Rat. Human

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

ポジティブ・コントロール IP: HeLa whole cell lysate; Flow Cyt (intra): JAR cells; ICC/IF: JAR cells; IHC-P: Human breast

carcinoma, and mouse and rat breast tissue; WB: HeLa, C6, Mouse skin and HAP1 cell lysates.

特記事項 This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

バッファー pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA

精製度 Protein A purified

ポリモノ モノクローナル クローン名 EPR2688(2)

アイソタイプ ΙgG

アプリケーション

The Abpromise guarantee Abpromise保証は、次のテスト済みアプリケーションにおけるab108311の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
ICC/IF	*** <u>*</u> (1)	1/50.
WB		1/1000 - 1/10000. Predicted molecular weight: 48 kDa.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.
Flow Cyt (Intra)		1/20.
IP		1/20.

ターゲット情報

機能 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.

関連疾患 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

 $(malformed\ pinnae,\ or al\ clefts),\ and,\ less\ commonly,\ renal\ and\ ectodermal\ (dental\ and\ hair)$

anomalies.

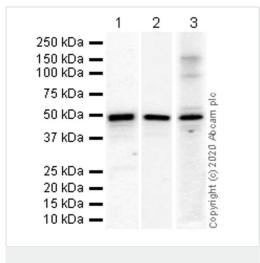
配列類似性 Belongs to the AP-2 family.

ドメイン The WW-binding motif mediates interaction with WWOX.

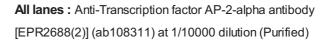
翻訳後修飾 Sumoylated on Lys-10; which inhibits transcriptional activity.

細胞内局在 Nucleus.

画像



Western blot - Anti-Transcription factor AP-2-alpha antibody [EPR2688(2)] (ab108311)



Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

Lane 2: C6 (Rat glial tumor glial cell) whole cell lysate

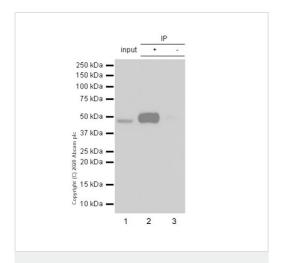
Lane 3: Mouse skin lysate

Lysates/proteins at 15 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (<u>ab97051</u>) at 1/20000 dilution

Predicted band size: 48 kDa



Immunoprecipitation - Anti-Transcription factor AP-2alpha antibody [EPR2688(2)] (ab108311) Purified ab108311 at 1/20 dilution $(0.5\mu g)$ immunoprecipitating Transcription factor AP-2-alpha in HeLa whole cell lysate.

Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate $10\mu g$

Lane 2 (+): ab108311 + HeLa whole cell lysate.

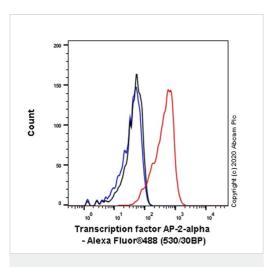
Lane 3 (-): Rabbit monoclonal IgG (<u>ab172730</u>) instead of ab108311 in HeLa whole cell lysate.

VeriBlot for IP Detection Reagent (HRP) (<u>ab131366</u>) (1/10,000 dilution) was used for Western blotting.

Blocking Buffer and concentration: 5% NFDM/TBST.

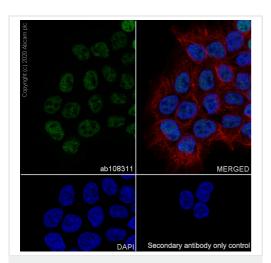
Diluting buffer and concentration: 5% NFDM/TBST.

Observed band size: 48 kDa



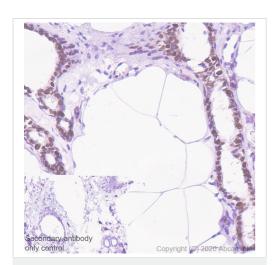
Flow Cytometry (Intracellular) - Anti-Transcription factor AP-2-alpha antibody [EPR2688(2)] (ab108311)

Intracellular Flow Cytometry analysis of JAR (Human placenta choriocarcinoma epithelial cell) cells labeling Transcription factor AP-2-alpha with Purified ab108311 at 1/20 dilution (10 µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor[®] 488, <u>ab150077</u>) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



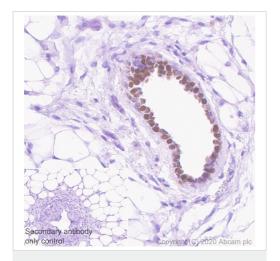
Immunocytochemistry/ Immunofluorescence - Anti-Transcription factor AP-2-alpha antibody [EPR2688(2)] (ab108311)

Immunocytochemistry analysis of JAR (Human placenta choriocarcinoma epithelial cell) cells labeling Transcription factor AP-2-alpha with Purified ab108311 at 1/50 dilution (3.4 μ g/mL). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Antialpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 dilution (2.5 μ g/mL). Goat anti-rabbit lgG (Alexa Fluor® 488, <u>ab150077</u>) was used as the secondary antibody at 1/1000 dilution (2 μ g/mL). DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



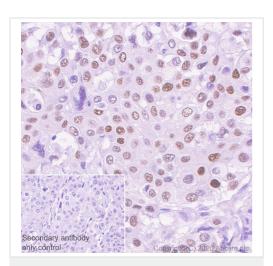
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Transcription factor AP-2-alpha antibody [EPR2688(2)] (ab108311)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat breast tissue sections labeling
Transcription factor AP-2-alpha with Purified ab108311 at 1/100 dilution (1.07 µg/mL). Heat mediated antigen retrieval using Bond™
Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



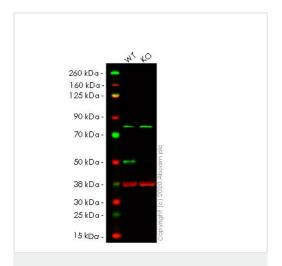
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Transcription factor AP-2-alpha antibody [EPR2688(2)] (ab108311)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse breast tissue sections labeling Transcription factor AP-2-alpha with Purified ab108311 at 1/100 dilution (1.07 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Transcription factor AP-2-alpha antibody [EPR2688(2)] (ab108311)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma tissue sections labeling Transcription factor AP-2-alpha with Purified ab108311 at 1/100 dilution (1.07 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Western blot - Anti-Transcription factor AP-2-alpha antibody [EPR2688(2)] (ab108311)

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

Lane 1: Wild-type HeLa cell lysate

Lane 2: TFAP2A knockout HeLa cell lysate

Lysates/proteins at 20 µg per lane.

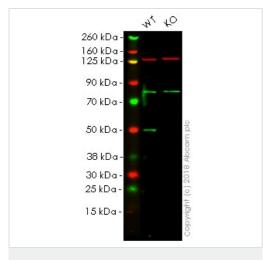
Performed under reducing conditions.

Predicted band size: 48 kDa **Observed band size:** 48 kDa

Lanes 1-2: Merged signal (red and green). Green - ab108311 observed at 48 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (ab8245) observed at 37 kDa.

ab108311 was shown to react with Transcription factor AP-2-alpha in wild-type HeLa cells in western blot. Loss of signal was observed

when knockout cell line <u>ab265122</u> (knockout cell lysate <u>ab257736</u>) was used. Wild-type HeLa and TFAP2A knockout HeLa cell lysates were subjected to SDS-PAGE. ab108311 and Anti-GAPDH antibody [6C5] - Loading Control (<u>ab8245</u>) were incubated overnight at 4°C at a 1 in 1000 Dilution and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye®800CW) preadsorbed (<u>ab216773</u>) and Goat anti-Mouse IgG H&L (IRDye®680RD) preadsorbed (<u>ab216776</u>) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-Transcription factor AP-2-alpha antibody [EPR2688(2)] (ab108311)

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

Lane 1 : Wild-type HAP1 whole cell lysate

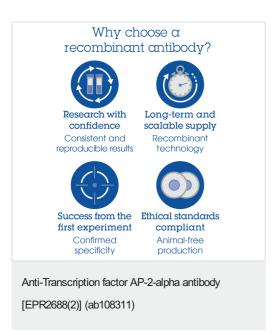
Lane 2 : TFAP2A (Transcription factor AP-2-alpha) knockout HAP1 whole cell lysate

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 Transcription factor AP-2-alpha in wild-type HAP1 cells as signal was lost at the expected MW in TFAP2A (Transcription factor AP-2-alpha) knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and TFAP2A (Transcription factor AP-2-alpha) 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.



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