abcam

ab247427

Anti-AP2 gamma/TFAP2C antibody [EP2692Y] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EP2692Y
Purification technique	Affinity purification Protein A
Concentration	1.014 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Human
Dilution info	-

Notes	-

WB

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information Transcription factor AP-2 gamma

Function	Sequence-specific DNA-binding transcription factor that interacts with cellular enhancer elements to regulate transcription of selected genes, and which plays a key role in early embryonic development (PubMed:11694877, PubMed:24413532). AP-2 factors bind to the consensus sequence 5'-GCCNNNGGC-3' and activate genes involved in a large spectrum of important biological functions (PubMed:11694877, PubMed:24413532). TFAP2C plays a key role in early embryonic development by regulating both inner cell mass (ICM) and trophectoderm differentiation (By similarity). At the 8-cell stage, during morula development, controls expression of cell-polarity genes (By similarity). Upon trophoblast commitment, binds to late trophectoderm genes in blastocysts together with CDX2, and later to extra-embryonic ectoderm genes together with SOX2 (By similarity). Binds to both closed and open chromatin with other transcription factors (By similarity). Involved in the MTA1-mediated epigenetic regulation of ESR1 expression in breast cancer (PubMed:24413532).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab247427 is the carrier-free version of ab76007.

Species reactivity

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Patented technology

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

What are the advantages of a recombinant monoclonal antibody?

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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes,

oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

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.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	AP2 gamma also known as TFAP2C functions as a transcription factor and belongs to the AP-2 family. AP2 gamma has a molecular weight of approximately 50 kDa. It regulates gene expression by binding to DNA sequence-specific sites influencing diverse cellular processes. This protein commonly expresses in tissues like mammary glands and is important in embryonic development. TFAP2C plays a role in differentiation and development across different cell types.
Biological function summary	AP2 gamma acts as a significant regulator of gene networks that control cell growth and differentiation. This protein contributes to transcriptional activation and repression often functioning within multiprotein complexes. It regulates the expression of genes involved in epithelial cell differentiation and morphogenesis. Importantly TFAP2C helps in the development of ectodermal tissues supporting cellular behaviors necessary for proper tissue formation.
Pathways	TFAP2C is involved in pathways that include developmental processes and differentiation. In particular it takes part in the Wnt signaling pathway influencing gene expression patterns that govern development. AP2 gamma interacts with proteins such as beta-catenin within the Wnt pathway modulating cell fate and proliferation. Another important pathway is the estrogen receptor signaling pathway where TFAP2C partners with proteins like ERα to regulate hormone-responsive genes.
Associated diseases and disorders	AP2 gamma has links to breast cancer and neural tube defects. In breast cancer TFAP2C modulates genes associated with cancer progression and treatment response interacting with proteins like HER2. Mutations or dysregulation of TFAP2C can also lead to developmental anomalies like neural tube defects possibly due to altered gene expression during embryonic development. Understanding these connections provides insight into therapeutic strategies and developmental biology.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

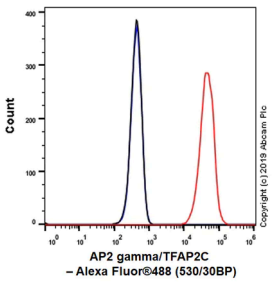
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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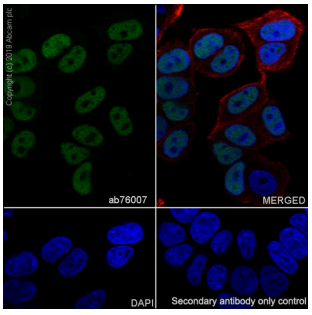
2 product images



Flow Cytometry (Intracellular) - Anti-AP2 gamma/TFAP2C antibody [EP2692Y] - BSA and Azide free (ab247427)

AP2 gamma/TFAP2C Flow Cytometry (Intracellular) staining using rabbit Anti-AP2 gamma/TFAP2C antibody

This data was developed using ab76007, the same antibody clone in a different buffer formulation. Intracellular Flow Cytometry analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling AP2 gamma/TFAP2C with purified ab76007 at 1/100 dilution (10 µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cells without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-AP2 gamma/TFAP2C antibody [EP2692Y] - BSA and Azide free (ab247427)

AP2 gamma/TFAP2C Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-AP2 gamma/TFAP2C antibody

Immunocytochemistry/ Immunofluorescence analysis of MCF7 (human breast adenocarcinoma epithelial cell) cells labeling AP2 gamma/TFAP2C with purified ab76007 at 1/500 dilution (2 µg/mL). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/mL) dilution. DAPI (blue) was used as nuclear counterstain. ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL) was used as the secondary antibody only control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76007).

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