abcam

# ab188472

# Anti-GATAD2A antibody [EPR18252]

Recombinant | RabMAb

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Storage buffer** | pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Clone number** | EPR18252 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 1.411 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## WB

### Tested

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | 1/2000 |
| **Notes** | - |

| | |
|---|---|
| **Species** | Human |

| | |
|---|---|
| **Dilution info** | 1/2000 |
| **Notes** | - |

## ICC/IF

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/2000 |
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## Flow Cyt (Intra)

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## IHC-P

### Tested

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | 1/1000 |

| | |
|---|---|
| **Notes** | - |

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/1000 |
| **Notes** | - |

## Target data

See full target information Transcriptional repressor p66-alpha

| | |
|---|---|
| **Function** | Transcriptional repressor (PubMed:12183469, PubMed:16415179). Acts as a component of the histone deacetylase NuRD complex which participates in the remodeling of chromatin (PubMed:16428440, PubMed:28977666). Enhances MBD2-mediated repression (PubMed:12183469, PubMed:16415179). Efficient repression requires the presence of GATAD2B (PubMed:16415179). |

## Storage

| | |
|---|---|
| **Shipped at conditions** | Conditional Ambient |
| **Appropriate short-term storage duration** | 1-2 weeks |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | -20°C |
| **Aliquoting information** | Upon delivery aliquot |
| **Storage information** | Avoid freeze / thaw cycle |

## Notes

**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.

## Supplementary info

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

| | |
|---|---|
| **Activity summary** | The GATAD2A gene encodes a protein also known as P66-alpha weighing approximately 65 kDa. This protein is largely expressed in the nucleus of eukaryotic cells. GATAD2A interacts with other proteins to regulate transcription and is part of the transcription repression complexes. Its expression is seen widely across various tissues indicating its broad regulatory role in gene expression. |
| **Biological function summary** | GATAD2A functions by interacting with multiple factors to form the nucleosome remodeling and deacetylase (NuRD) complex. This complex is critical in modifying chromatin to control gene transcription. GATAD2A assists in recruiting this complex to specific genomic regions helping to repress or activate gene expression depending on the cellular context. GATAD2A's involvement in chromatin remodeling highlights its important role in cell cycle regulation and development. |
| **Pathways** | GATAD2A participates in epigenetic regulation pathways and the cellular differentiation process. It cooperates with other NuRD complex proteins like MBD2 and CHD4 which play roles in DNA methylation and histone modification. Through these interactions GATAD2A helps in maintaining the balance between gene repression and activation which is necessary for various cellular processes including differentiation and proliferation. |
| **Associated diseases and disorders** | GATAD2A shows associations with neurodevelopmental disorders and certain cancer forms. It has been noted to interact with proteins involved in these conditions such as transcriptional repressors and factors like CDK11 suggesting its role in disease progression. Abnormal GATAD2A function or expression can lead to disrupted chromatin dynamics potentially contributing to the pathogenesis of these disorders. |

## 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.

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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.

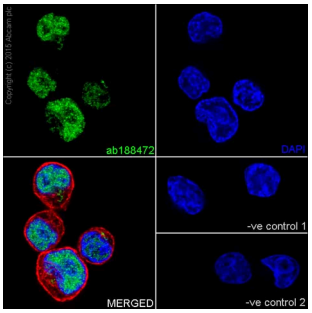
In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
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## 8 product images

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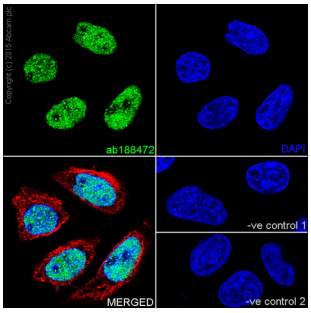



### Immunocytochemistry/ Immunofluorescence - Anti-GATAD2A antibody [EPR18252] (ab188472)

GATAD2A Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-GATAD2A antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed 0.1% Triton X-100 permeabilized HEK-293 (Human epithelial cells from embryonic kidney) cells labeling GATAD2A with ab188472 at 1/2000 dilution followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear staining on HEK-293 cell line. The nuclear counterstain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution (red).
The negative controls are as follows:-
-ve control 1: ab188472 at 1/2000 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution.
-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/1000 dilution.

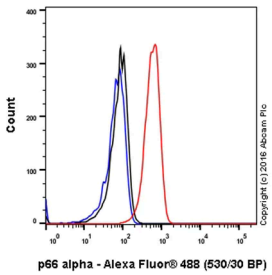
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## Immunocytochemistry/ Immunofluorescence - Anti-GATAD2A antibody [EPR18252] (ab188472)

GATAD2A Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-GATAD2A antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed 0.1% Triton X-100 permeabilized HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling GATAD2A with ab188472 at 1/2000 dilution followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear staining on HeLa cell line. The nuclear counterstain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution (red).
The negative controls are as follows:-
-ve control 1: ab188472 at 1/2000 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution.
-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/1000 dilution.

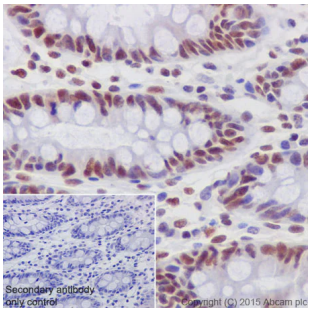



## Flow Cytometry (Intracellular) - Anti-GATAD2A antibody [EPR18252] (ab188472)

GATAD2A Flow Cytometry (Intracellular) staining using rabbit Anti-GATAD2A antibody

ab188472 staining GATAD2A in HeLa (human cervix adenocarcinoma) by intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. The sample was incubated with the primary antibody at a dilution of 1/120. 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)

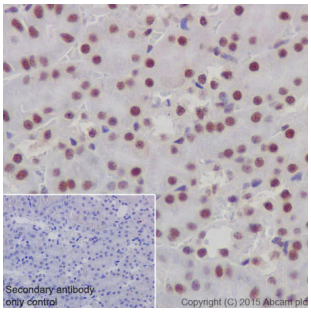



## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GATAD2A antibody [EPR18252] (ab188472)

GATAD2A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-GATAD2A antibody

Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling GATAD2A with ab188472 at 1/1000 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Nucleus staining on Human colon is observed. Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

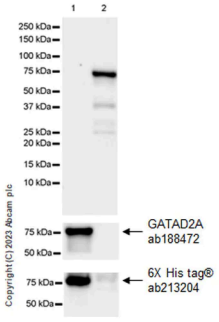



## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GATAD2A antibody [EPR18252] (ab188472)

GATAD2A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-GATAD2A antibody

Immunohistochemical analysis of paraffin-embedded Mouse kidney tissue labeling GATAD2A with ab188472 at 1/1000 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Nucleus staining on mouse kidney is observed. Counter stained with Hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.




## Western blot - Anti-GATAD2A antibody [EPR18252] (ab188472)

Blocking and diluting buffer and concentration: 5% NFDM/TBST. This antibody does not cross-react with human GATAD2A. In Western blot, anti-GATAD2A antibody (ab188472) staining at 1/1000 dilution, anti-His antibody (ab213204) staining at 1/5000 dilution. Exposure time: 37 seconds
All lanes:
Western blot - Anti-GATAD2B antibody [EPR27329-3] (ab308631) at 1/1000 dilution

Lane 1:
His-tagged human GATAD2A recombinant protein at 20 µg

Lane 2:
His-tagged human GATAD2B recombinant protein at 20 µg

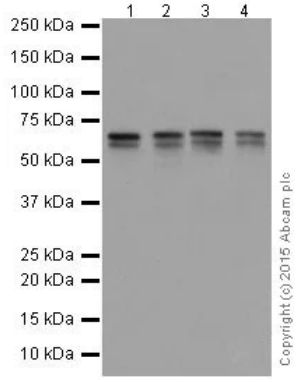
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 65 kDa

Observed band size: 72 kDa

Exposure time: 37s




## Western blot - Anti-GATAD2A antibody [EPR18252] (ab188472)

GATAD2A Western blot staining using rabbit Anti-GATAD2A antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
Three isoforms of 68 (isoforms 1 and 3) and 65 KDa (isoform 1).

All lanes:
Western blot - Anti-GATAD2A antibody [EPR18252] (ab188472) at 1/2000 dilution

Lane 1:
K562 (Human chronic myelogenous leukemia cells from bone marrow) whole cell lysate at 10 µg

Lane 2:
NCCIT (Human pluripotent embryonic carcinoma) whole cell lysate at 10 µg

Lane 3:

293 (Human epithelial cells from embryonic kidney) whole cell lysate at 10 µg

Lane 4:
HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysate at 10 µg

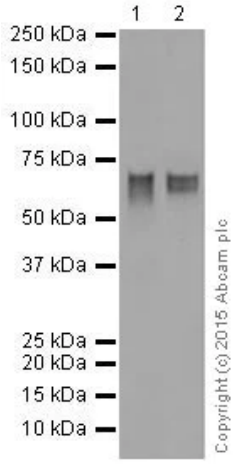
Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 68 kDa

Observed band size: 65 kDa, 68 kDa

Exposure time: 5s




## Western blot - Anti-GATAD2A antibody [EPR18252] (ab188472)

GATAD2A Western blot staining using rabbit Anti-GATAD2A antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-GATAD2A antibody [EPR18252] (ab188472) at 1/2000 dilution

Lane 1:
RAW 264.7 (Mouse macrophage cells transformed with Abelson murine leukemia virus) whole cell lysate at 10 µg

Lane 2:
NIH/3T3 (Mouse embyro fibroblast cells) whole cell lysate at 10 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 43 kDa, 68 kDa

Observed band size: 43 kDa, 65 kDa, 68 kDa

Exposure time: 10s

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