abcam

ab229282

# Anti-CD3G antibody [EPR4517] - 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** | EPR4517 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 1.053 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## IHC-P

### Tested

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | - |
| **Notes** | - |

### Expected

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

## IP

### Tested

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

### Expected

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

## WB

### Expected

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

## ICC/IF

### Tested

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

## Target data

See full target information CD3G

**Function**

Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response. When antigen presenting cells (APCs) activate T-cell receptor (TCR), TCR-mediated signals are transmitted across the cell membrane by the CD3 chains CD3D, CD3E, CD3G and CD247/CD3Z. All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain. Upon TCR engagement, these motifs become phosphorylated by Src family protein tyrosine kinases LCK and FYN, resulting in the activation of downstream signaling pathways (PubMed:2470098). In addition to this role of signal transduction in T-cell activation, CD3G plays an essential role in the dynamic regulation of TCR expression at the cell surface (PubMed:8187769). Indeed, constitutive TCR cycling is dependent on the di-leucine-based (diL) receptor-sorting motif present in CD3G.

## 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

ab229282 is the carrier-free version of ab134096.

**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.

**Species reactivity**

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

**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.

## 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.

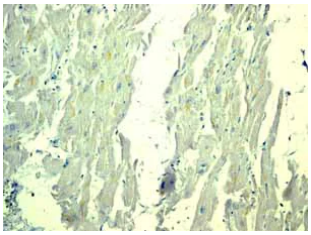
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We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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:
Terms & Conditions.

## 10 product images

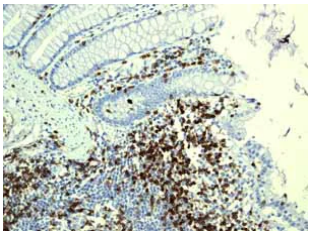


### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD3G antibody [EPR4517] - BSA and Azide free (ab229282)

CD3G Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD3G antibody

Immunohistochemistry (Formalin/PFA-fixed parffin-embedded sections) analysis of human skeletal muscle tissue. Unpurified ab32362 shows negative staining.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab134096).

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



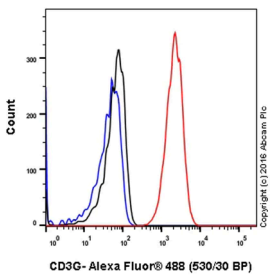
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CD3G Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD3G antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon (lymphocytes) tissue labelling CD3G with unpurified ab134096.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab134096).

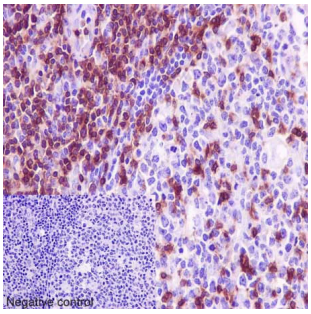
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.




## Flow Cytometry (Intracellular) - Anti-CD3G antibody [EPR4517] - BSA and Azide free (ab229282)

CD3G Flow Cytometry (Intracellular) staining using rabbit Anti-CD3G antibody

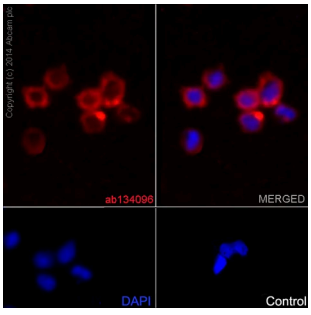
Intracellular Flow Cytometry analysis of Jurkat (human acute T cell leukemia) cells labeling CD3G with purified ab134096 at 1/70 dilution (10ug/mL) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluorï¿½488) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) was used as the unlabeled control.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab134096).




## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD3G antibody [EPR4517] - BSA and Azide free (ab229282)

CD3G Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD3G antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil tissue labelling CD3G with purified ab134096 at 1/1000. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. A prediluted HRP-polymer conjugated anti-rabbit IgG was used as the secondary antibody. Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab134096).

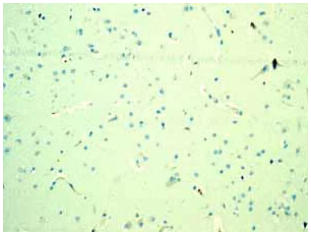



## Immunocytochemistry/ Immunofluorescence - Anti-CD3G antibody [EPR4517] - BSA and Azide free (ab229282)

CD3G Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-CD3G antibody

Immunocytochemistry/Immunofluorescence analysis of Jurkat cells labelling CD3G with purified ab134096 at 1/1000. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. An Alexa Fluor® 555-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain.
Control: primary antibody (1/1000) and secondary antibody, ab150113, an Alexa Fluor® 488-conjugated goat anti-mouse IgG (1/500).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab134096).



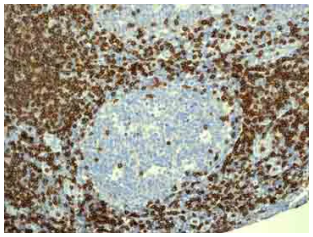
## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD3G antibody [EPR4517] - BSA and Azide free (ab229282)

CD3G Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD3G antibody

Immunohistochemistry (Formalin/PFA-fixed parffin-embedded sections) analysis of human brain tissue. Unpurified ab32362 shows negative staining.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab134096).

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

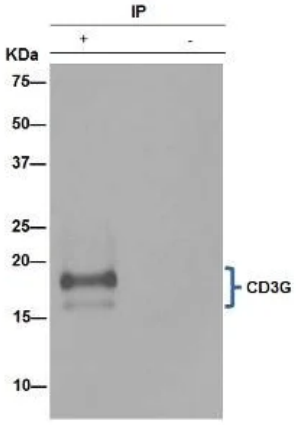


## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD3G antibody [EPR4517] - BSA and Azide free (ab229282)

CD3G Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD3G antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil tissue labelling CD3G with unpurified ab134096.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab134096).

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.




## Immunoprecipitation - Anti-CD3G antibody [EPR4517] - BSA and Azide free (ab229282)

ab134096 (purified) at 1/40 immunoprecipitating CD3G in Jurkat cell lysate (Lane 1). Lane 2 - PBS.
For western blotting, a HRP-conjugated anti-rabbit IgG, specific to the non-reduced form of IgG was used as the secondary antibody (1/1500).
Blocking buffer and concentration: 5% NFDM/TBST.

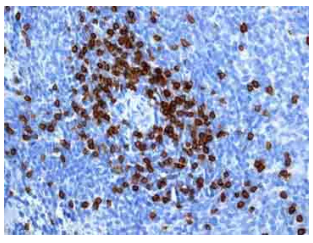
Diluting buffer and concentration: 5% NFDM /TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab134096).

All lanes:
Immunoprecipitation - Anti-CD3G antibody [EPR4517] (ab134096)

Predicted band size: 20 kDa

Observed band size: 18-28 kDa



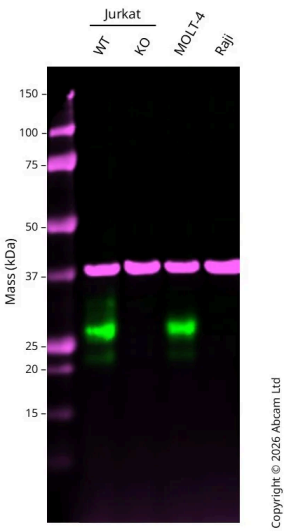
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CD3G Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD3G antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse spleen tissue labelling CD3G with unpurified ab134096.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab134096).

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



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## Western blot - Anti-CD3G antibody [EPR4517] - BSA and Azide free (ab229282)

CD3G Western blot staining using rabbit Anti-CD3G antibody

This data was developed using the same antibody clone in a different buffer formulation (ab134096).

Western blot: Anti-CD3G antibody [EPR4517] ab134096 staining at 1/50000 dilution, shown in green; Mouse anti GAPDH ab8245 loading control staining at 1/20000 dilution, shown in magenta. A band was observed at 27 kDa in Wild-type Jurkat cell line with no signal observed at this size in CD3G knockout Jurkat cell line. To generate this image, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5% Milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit 800CW and Goat anti-Mouse 680RD at 1/20,000 dilution.

All lanes:
Western blot - Anti-CD3G antibody [EPR4517] (ab134096) at 1/50000 dilution

Lane 1:
Wild-type Jurkat at 20 µg

Lane 2:
Western blot - Human CD3G knockout Jurkat cell line (ab273872) at 20 µg

Lane 3:
MOLT-4 at 20 µg

Lane 4:
Raji at 20 µg

Secondary

All lanes:
Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 20 kDa

Observed band size: 27 kDa

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