abcam

ab133628

# Anti-CD3 epsilon antibody [EPR5361(2)]

Lab Essentials | Recombinant | RabMAb | 20ul selling size

## 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** | EPR5361(2) |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 0.727 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## ICC/IF

### Tested

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

## IP

**Tested**

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/10 - 1/100 |
| **Notes** | - |

## Flow Cyt

**Tested**

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/100 - 1/500 |
| **Notes** | ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. |

## WB

**Tested**

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/10000 - 1/50000 |
| **Notes** | - |

## IHC-P

**Not recommended**

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

# Target data

See full target information CD3E

| | |
|---|---|
| **Function** | Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response (PubMed:15294938, PubMed:15546002, PubMed:2470098, PubMed:40592325, PubMed:8490660). 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 (PubMed:2470098, PubMed:40592325). All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain (PubMed:2470098, PubMed:40592325). 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, PubMed:40592325). CD3E ITAM phosphorylation creates docking sites for the protein kinase ZAP70 leading to ZAP70 phosphorylation and its conversion into a catalytically active enzyme (By similarity). In addition of this role of signal transduction in T-cell activation, CD3E plays an essential role in correct T-cell development (By similarity). Also participates in internalization and cell surface down-regulation of TCR-CD3 complexes via endocytosis sequences present in CD3E cytosolic region (PubMed:10384095, PubMed:26507128). In addition to its role as a TCR coreceptor, it serves as a receptor for ITPRIPL1 (PubMed:38614099). Ligand recognition inhibits T-cell activation by promoting interaction with NCK1, which prevents CD3E-ZAP70 interaction and blocks the ERK-NFkB signaling cascade and calcium influx (PubMed:12110186, PubMed:38614099).

## Storage

| | |
|---|---|
| **Shipped at conditions** | Conditional Ambient |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | -20°C |
| **Storage information** | Stable for 12 months at -20°C |

## Notes

**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.

## 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**

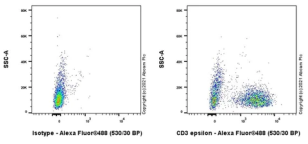
We do not recommend this combination. It is not covered by our product promise.

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.

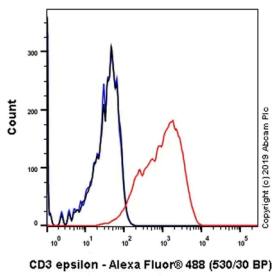
## 5 product images



### Flow Cytometry - Anti-CD3 epsilon antibody [EPR5361(2)] (ab133628)

CD3 epsilon Flow Cytometry staining using rabbit Anti-CD3 epsilon antibody

Flow cytometric analysis of Human peripheral blood mononuclear cells (PBMC) labelling CD3 with ab133628 at 1/100 dilution (red) compared with a Rabbit monoclonal IgG (ab172730) (left) and an unlabelled control (cells without incubation with primary antibody and secondary antibody). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077), at 1/2000 dilution was used as the secondary antibody.

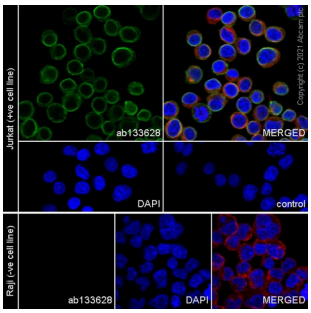



### Flow Cytometry - Anti-CD3 epsilon antibody [EPR5361(2)] (ab133628)

CD3 epsilon Flow Cytometry staining using rabbit Anti-CD3 epsilon antibody

Flow cytometry overlay histogram of Jurkat (Human T cell leukemia T lymphocyte) cells labelling CD3 epsilon with ab133628 at 1/100 dilution (red) compared with a Rabbit monoclonal IgG (ab172730) (Black) and an unlabelled control (cells without incubation with primary antibody and

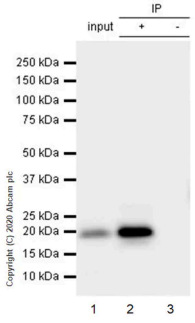
secondary antibody) (Blue). Goat anti rabbit IgG (Alexa Fluor® 488) (ab150077), at 1/2000 dilution was used as the secondary antibody.




## Immunocytochemistry/ Immunofluorescence - Anti-CD3 epsilon antibody [EPR5361(2)] (ab133628)

CD3 epsilon Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-CD3 epsilon antibody

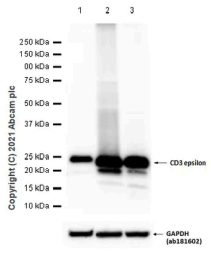
Immunofluorescent analysis of 4% Paraformaldehyde-fixed Jurkat (human T cell leukemia T lymphocyte) cells labelling CD3 epsilon with ab133628 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on Jurkat cells. Counterstained with Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) (ab195889) at 1:200 dilution.
The negative controls was Raji cell line.




## Immunoprecipitation - Anti-CD3 epsilon antibody [EPR5361(2)] (ab133628)

Purified ab133628 at 1/50 dilution (2µg) immunoprecipitating CD3 epsilon in Hut-78 whole cell lysate.
Lane 1 (input): Hut-78 (Human Sezary syndrome cutaneous T lymphocyte) whole cell lysate 10µg
Lane 2 (+): ab133628 + Hut-78 whole cell lysate.
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab133628 in Hut-78 whole cell lysate.
VeriBlot for IP Detection Reagent (HRP) (ab131366) (1/1000 dilution) was used for Western blotting.
Blocking Buffer and concentration: 5% NFDM/TBST.
Diluting buffer and concentration: 5% NFDM/TBST.
Observed band size: 23 kDa
All lanes:
Immunoprecipitation - Anti-CD3 epsilon antibody [EPR5361(2)] (ab133628)

Predicted band size: 23 kDa




## Western blot - Anti-CD3 epsilon antibody [EPR5361(2)] (ab133628)

CD3 epsilon Western blot staining using rabbit Anti-CD3 epsilon antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

All lanes:
Western blot - Anti-CD3 epsilon antibody [EPR5361(2)] (ab133628) at 1/1000 dilution

Lane 1:
Human peripheral blood mononuclear cell (PBMC) lysate at 20 µg

Lane 2:
Human thymus tissue lysate at 20 µg

Lane 3:
Jurkat (Human T cell leukemia T lymphocyte) whole cell lysate at 20 µg

Secondary

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

Predicted band size: 23 kDa

Observed band size: 23 kDa

Exposure time: 10s

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