

Product datasheet

Anti-CD8 alpha antibody [EPR21769] ab217344

Recombinant RabMAb

★★★★★ 3 Abreviews 44 References 8 Images

Overview

Product name	Anti-CD8 alpha antibody [EPR21769]
Description	Rabbit monoclonal [EPR21769] to CD8 alpha
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-Fr, IHC-P, Flow Cyt, IP
Species reactivity	Reacts with: Mouse
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Mouse thymus, spleen and lymph node lysates. IHC-P: Mouse spleen and colon tissues. IHC-Fr: Mouse spleen and thymus tissues. Flow Cyt: Mouse primary splenocytes. IP: Mouse thymus lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: PBS, 40% Glycerol, 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR21769

Isotype

IgG

Applications

The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab217344 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 34-38 kDa (predicted molecular weight: 27 kDa).
IHC-Fr		1/500.
IHC-P	★★★★★ (3)	1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. Background staining was observed in mouse testis samples.
Flow Cyt		1/500.
IP		1/30.

Target

Function

Identifies cytotoxic/suppressor T-cells that interact with MHC class I bearing targets. CD8 is thought to play a role in the process of T-cell mediated killing. CD8 alpha chains binds to class I MHC molecules alpha-3 domains.

Involvement in disease

Defects in CD8A are a cause of familial CD8 deficiency (CD8 deficiency) [MIM:608957]. Familial CD8 deficiency is a novel autosomal recessive immunologic defect characterized by absence of CD8+ cells, leading to recurrent bacterial infections.

Sequence similarities

Contains 1 Ig-like V-type (immunoglobulin-like) domain.

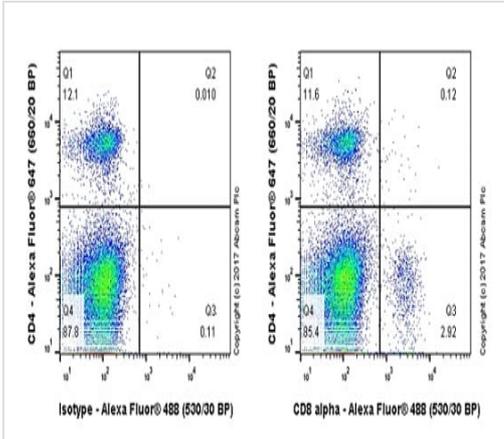
Post-translational modifications

All of the five most carboxyl-terminal cysteines form inter-chain disulfide bonds in dimers and higher multimers, while the four N-terminal cysteines do not.

Cellular localization

Secreted and Cell membrane.

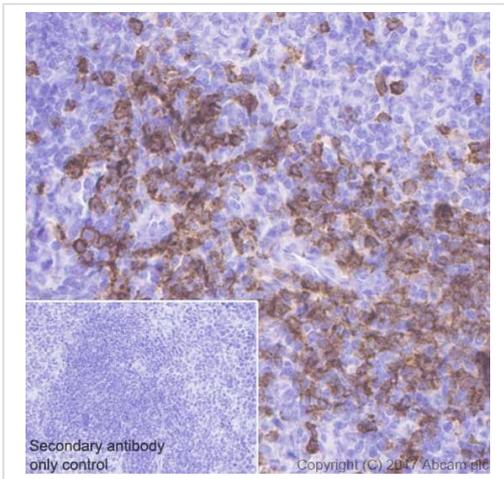
Images



Flow Cytometry - Anti-CD8 alpha antibody
[EPR21769] (ab217344)

Flow cytometric analysis of mouse primary splenocytes labeling CD8 alpha with ab217344 at 1/500 dilution (right panel) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (left panel). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/2000 dilution was used as the secondary antibody.

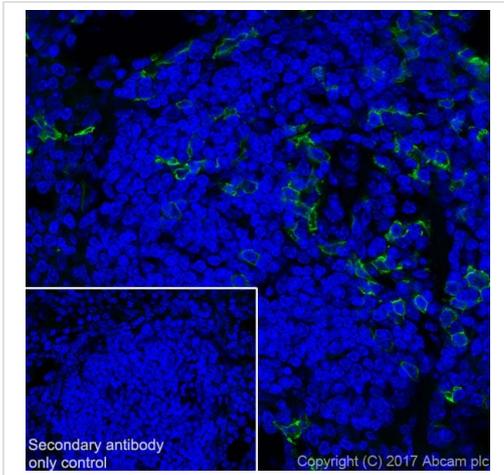
Cells were surface stained with CD4-Alexa Fluor® 647, then stained with rabbit IgG (Left) / ab217344 (Right) separately. CD4 and CD8 alpha are mutually exclusive expressed in mouse spleen. Gated on total viable cells.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD8 alpha antibody
[EPR21769] (ab217344)

Immunohistochemical analysis of paraffin-embedded mouse spleen tissue labeling CD8 alpha with ab217344 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on the white pulp of mouse spleen (PMID: 23482450; PMID: 25826597). Counter stained with Hematoxylin. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

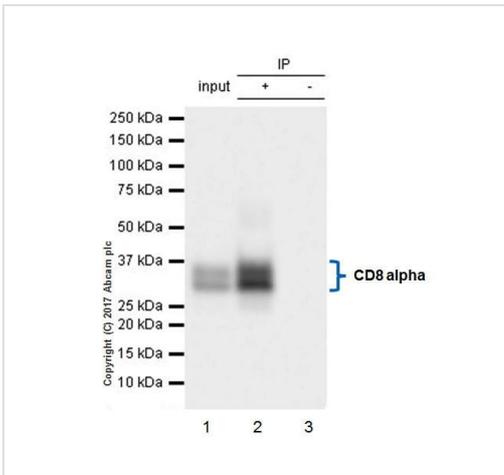


Immunohistochemistry (Frozen sections) - Anti-CD8 alpha antibody [EPR21769] (ab217344)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen mouse spleen tissue labeling CD8 alpha with ab217344 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Positive membrane staining on mouse spleen (PMID: 25616911).

The nuclear counter stain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/1000 dilution.



Immunoprecipitation - Anti-CD8 alpha antibody [EPR21769] (ab217344)

CD8 alpha was immunoprecipitated from 0.35 mg of mouse thymus lysate with ab217344 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab217344 at 1/2000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10000 dilution.

Lane 1: Mouse thymus lysate 10 µg (Input).

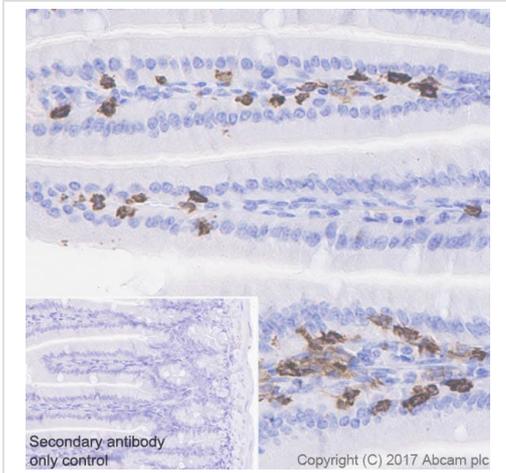
Lane 2: ab217344 IP in mouse thymus lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab217344 in mouse thymus lysate.

Exposure time: 5 seconds.

Blocking and dilution buffer and concentration: 5% NFDN/TBST.

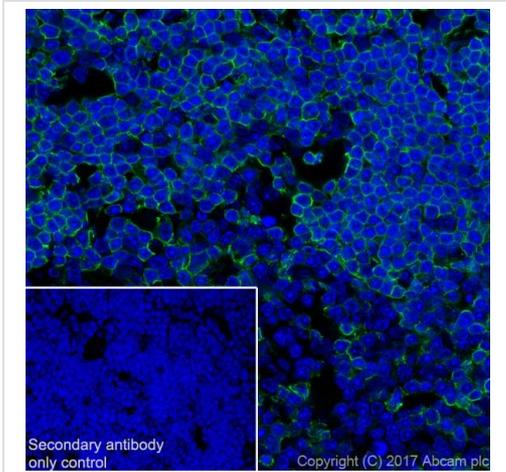
The two bands are different isoforms that are consistent with the literature (PMID 3085089).



Immunohistochemical analysis of paraffin-embedded mouse colon tissue labeling CD8 alpha with ab217344 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on stromal cells of mouse colon. Counter stained with Hematoxylin. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD8 alpha antibody [EPR21769] (ab217344)

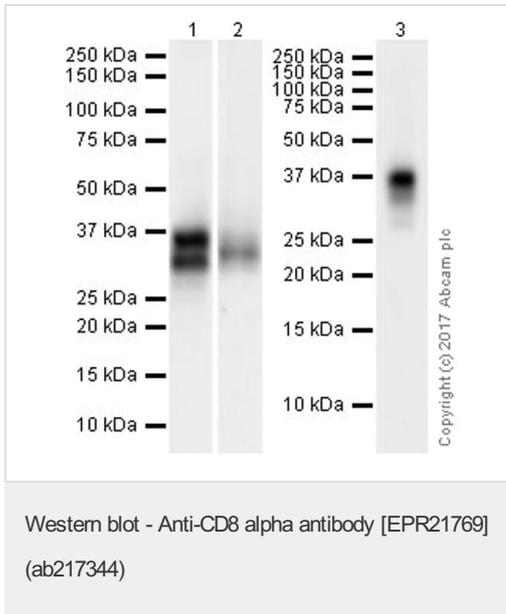


Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen mouse thymus tissue labeling CD8 alpha with ab217344 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) (ab150077) secondary antibody at 1/1000 dilution (green). Positive membrane staining on mouse thymus tissue section (PMID: 25616911).

The nuclear counter stain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) (ab150077) at 1/1000 dilution.

Immunohistochemistry (Frozen sections) - Anti-CD8 alpha antibody [EPR21769] (ab217344)



All lanes : Anti-CD8 alpha antibody [EPR21769] (ab217344) at 1/1000 dilution

Lane 1 : Mouse thymus lysate at 20 µg

Lane 2 : Mouse spleen lysate at 20 µg

Lane 3 : Mouse lymph node lysate at 10 µg

Secondary

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

Developed using the ECL technique.

Predicted band size: 27 kDa

Observed band size: 35 kDa

Exposure time : Lane 1: 3 seconds; Lane 2: 40 seconds; Lane 3: 15 seconds.

Blocking/Dilution buffer: 5% NFD/MTBST.

The two bands are different isoforms that are consistent with the literature (PMID 3085089).

The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-CD8 alpha antibody [EPR21769] (ab217344)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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