

## Product datasheet

### Anti-CD8 alpha antibody [C8/144B] ab17147

★★★★★ [9 Abreviews](#) [87 References](#) [4 Images](#)

#### Overview

<b>Product name</b>	Anti-CD8 alpha antibody [C8/144B]
<b>Description</b>	Mouse monoclonal [C8/144B] to CD8 alpha
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide corresponding to Human CD8 alpha (C terminal). Database link: <a href="#">P01732</a>
<b>Positive control</b>	IHC-P: Human tonsil tissue. Flow Cyt: Human peripheral blood lymphocytes.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.3 Preservative: 0.05% Sodium azide Constituents: Tissue culture supernatant, 1% BSA
<b>Purity</b>	Tissue culture supernatant
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	C8/144B
<b>Isotype</b>	IgG1
<b>Light chain type</b>	kappa

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab17147 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
Flow Cyt		1/100. <b>ab170190</b> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
IHC-P	★★★★★ (6)	1/50 - 1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

## 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.

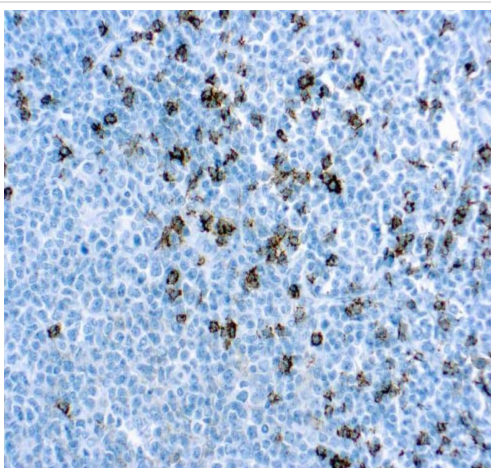
### Post-translational modifications

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

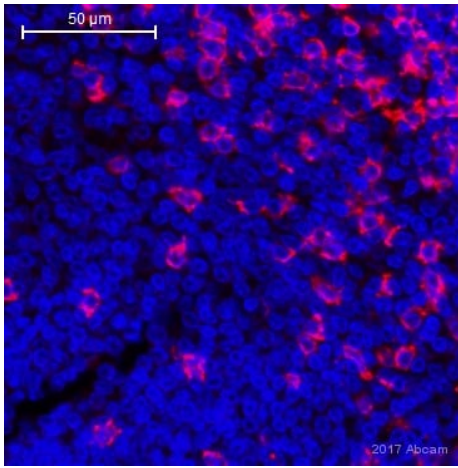
Secreted and Cell membrane.

## Images



Paraffin embedded human tonsil tissue stained for CD8 T-Cell using ab17147 at 1/100 dilution in immunohistochemical analysis.

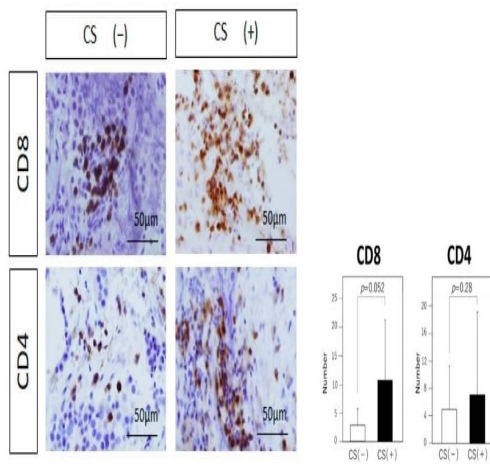
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD8 alpha antibody [C8/144B] (ab17147)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD8 alpha antibody [C8/144B] (ab17147)

This image is courtesy of an anonymous Abreview

Paraffin embedded human spleen tissue stained for CD8 alpha using ab17147 at 1/50 dilution in immunohistochemical analysis. Antigen retrieval step with Tris/EDTA pH 9.0.



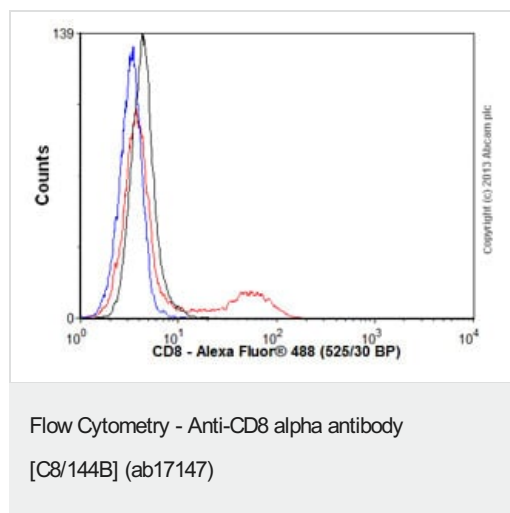
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD8 alpha antibody [C8/144B] (ab17147)

Image from Sato Met al., J Clin Med., 8, 695. Fig 3.; doi: 10.3390/jcm8050695. Reproduced under the Creative Commons license <http://creativecommons.org/licenses/by/4.0/>.

Analysis of tumor-infiltrating lymphocytes. Immunohistochemical analysis of CD8 and CD4 (Original magnification,  $\times 20$ ). Typical examples of each staining are shown in both groups. Statistical analysis of each staining is shown. The number of CD8 (+) lymphocytes tends to be higher in the CS (+) group than in the CS (-) group, but the difference is not statistically significant ( $p = 0.052$ ). The number of CD4 (+) lymphocytes shows no significant difference between the two groups ( $p = 0.28$ ). Data represent the mean  $\pm$  standard error of mean (CD4 and CD8, student's  $t$ -test).

Image from **Sato M et al., J Clin Med., 8, 695. Fig 3.;** doi: **10.3390/jcm8050695.**

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Human peripheral blood lymphocytes stained with ab17147 (red line). Human whole blood was processed using a modified protocol based on Chow *et al*, 2005 (PMID: 16080188). In brief, human whole blood was fixed in 4% formaldehyde (methanol-free) for 10 min at 22°C. Red blood cells were then lysed by the addition of Triton X-100 (final concentration - 0.1%) for 15 min at 37°C. For experimentation, cells were treated with 50% methanol (-20°C) for 15 min at 4°C. Cells were then incubated with the antibody (ab17147, 1/100 dilution) for 30 min at 4°C. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H&L) (**ab150113**) at 1/2000 dilution for 30 min at 4°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (**ab91353**, 1µg/1x10<sup>6</sup> cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >30,000 total events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. Gating strategy - peripheral blood lymphocytes.

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

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