Anti-CD8 antibody [SP16] ab101500

Overview

Product name: Anti-CD8 antibody [SP16]
Description: Rabbit monoclonal [SP16] to CD8
Host species: Rabbit

Tested applications:
Suitable for: IHC-P, Flow Cyt

Species reactivity:
Reacts with: Human

Immunogen:
Synthetic peptide within Human CD8 (C terminal). The exact sequence is proprietary.

Epitope:
C-terminus

Positive control:
Human tonsil tissue

Properties

Form:
Liquid

Storage instructions:
Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.

Storage buffer:
pH: 7.50
Preservative: 0.1% Sodium azide
Constituents: Tris buffered saline, 1% BSA

Purity:
Tissue culture supernatant

Clonality:
Monoclonal

Clone number:
SP16

Isotype:
IgG

Applications

Our Abpromise guarantee covers the use of ab101500 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<tr>
<td>IHC-P</td>
<td><strong>1/100.</strong> Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Boil tissue section in 10mM citrate buffer, pH 6.0 for 10 min followed by cooling at room temperature for 20 min.</td>
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<td>Flow Cyt</td>
<td>1/1000. <em>ab172730</em> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.</td>
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### 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 C-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.

#### Form

CD8 beta tissue specificity: Isoform 1, isoform 3, isoform 5, isoform 6, isoform 7 and isoform 8 are expressed in both thymus and peripheral CD8+ T-cells. Expression of isoform 1 is higher in thymus CD8+ T-cells than in peripheral CD8+ T-cells. Expression of isoform 6 is higher in peripheral CD8+ T-cells than in thymus CD8+ T-cells. CD8 beta PTM: Phosphorylated as a consequence of T-cell activation.

### Images

**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD8 antibody [SP16](ab101500)**

Image from Graff JN et al.,OncoTarget 7(33), 52810 - 52817. Fig 2.; doi: 10.18632/oncotarget.10547.

IHC using multi-spectral imaging on human lymph node (A-C) obtained from men with mCRPC. A) H+E staining and B) single-color images (plus nuclear stain; DAPI) of CD3 (ab16669), CD8 (ab101500), CD163, PD-L1, cytokeratin (CK), DAPI and C) merged. H+E staining at 20X magnification; multi-spectral images 200X magnification.
Immunohistochemical staining of paraffin embedded Human tonsil tissue labelling CD8 [SP16] with ab101500 at 1/100.

Human peripheral blood lymphocytes stained with ab101500 (red line). Human whole blood was processed using a modified protocol based on Chow et al, 2005 (PMD: 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 (ab101500, 1/100 dilution) for 30 min at 4°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) (ab150077) at 1/2000 dilution for 30 min at 4°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1μg/1x10⁶ 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.

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