## Product datasheet

**Anti-CD8 antibody [SP16] ab101500**

**RabMAb**

- **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 aa 200 to the C-terminus (C terminal). The exact sequence is proprietary. 
    Database link: [P01732](#)
  - **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.
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
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 (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 (ab101500, 1/1000 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/1x10^6 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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