


Product datasheet

Anti-CD4 antibody [SP35] - BSA and Azide free ab238798

Recombinant RabMAb

9 Images

Overview

| | |
|----------------------------|---|
| Product name | Anti-CD4 antibody [SP35] - BSA and Azide free |
| Description | Rabbit monoclonal [SP35] to CD4 - BSA and Azide free |
| Host species | Rabbit |
| Tested applications | Suitable for: IHC-P, Flow Cyt, mIHC |
| Species reactivity | Reacts with: Human Predicted to work with: Pig  |
| Immunogen | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| Positive control | IHC-P: Human Hodgkin's lymphoma and tonsil tissue. Flow Cyt: THP-1 cells |
| General notes | <p>ab238798 is the carrier-free version of ab213215.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.</p> <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>This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.</p> |

Properties

| | |
|-----------------------------|---|
| Form | Liquid |
| Storage instructions | Shipped at 4°C. Store at +4°C. Do Not Freeze. |
| Storage buffer | pH: 7.20 Constituent: PBS |
| Carrier free | Yes |
| Purity | Protein A/G purified |
| Purification notes | Purified from TCS by protein A/G. |
| Clonality | Monoclonal |
| Clone number | SP35 |
| Isotype | IgG |

Applications

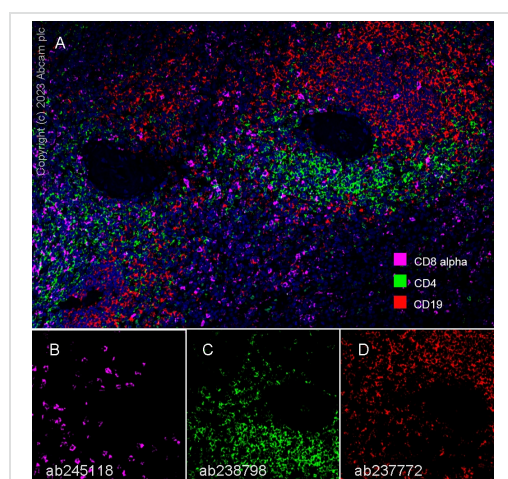
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab238798 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|-------------|-----------|--|
| IHC-P | | Use at an assay dependent concentration. (For 30 minutes at room temperature. Antigen Retrieval: Boil tissue section in EDTA buffer for 10 min followed by cooling at room temperature for 20 min). |
| Flow Cyt | | Use at an assay dependent concentration. (For 30 minutes at 4°C). |
| mIHC | | 1/500. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) |

Target

| | |
|---|--|
| Function | Accessory protein for MHC class-II antigen/T-cell receptor interaction. May regulate T-cell activation. Induces the aggregation of lipid rafts. |
| Sequence similarities | Contains 3 Ig-like C2-type (immunoglobulin-like) domains. Contains 1 Ig-like V-type (immunoglobulin-like) domain. |
| Post-translational modifications | Palmitoylation and association with LCK contribute to the enrichment of CD4 in lipid rafts. |
| Cellular localization | Cell membrane. Localizes to lipid rafts. Removed from plasma membrane by HIV-1 Nef protein that increases clathrin-dependent endocytosis of this antigen to target it to lysosomal degradation. Cell surface expression is also down-modulated by HIV-1 Envelope polyprotein gp160 that interacts with, and sequesters CD4 in the endoplasmic reticulum. |

Images



Multiplex immunohistochemistry - Anti-CD4 antibody [SP35] - BSA and Azide free (ab238798)

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded Human spleen tissue labeling CD8 alpha with **ab245118** at 1/500 dilution, CD4 with ab238798 at 1/500, and CD19 with **ab237772** at 1/5000 dilution.

Panel A: merged staining of anti-CD8 alpha (magenta; Opal™690), anti-CD4 (green; Opal™520) and anti-CD19 (red; Opal™570) on human spleen.

Panel B: anti-CD8 alpha stained on cytotoxic T cells.

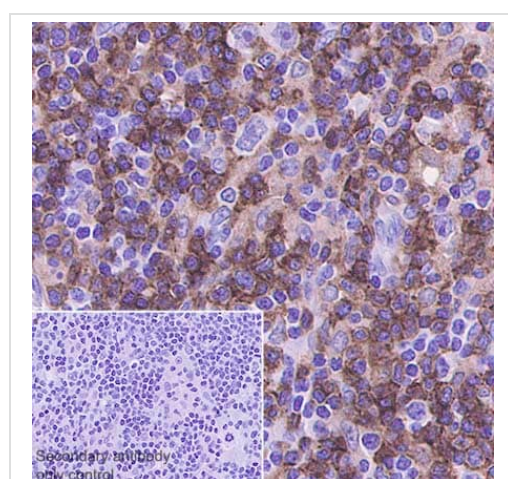
Panel C: anti-CD4 stained on T helper cells.

Panel D: anti-CD19 stained on B cells.

Sections were treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins before antibody incubation. The section was incubated in three rounds of staining: in the order of **ab245118** for 30 mins, then ab238798 and **ab237772** for 10 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

DAPI was used as a nuclear counterstain.

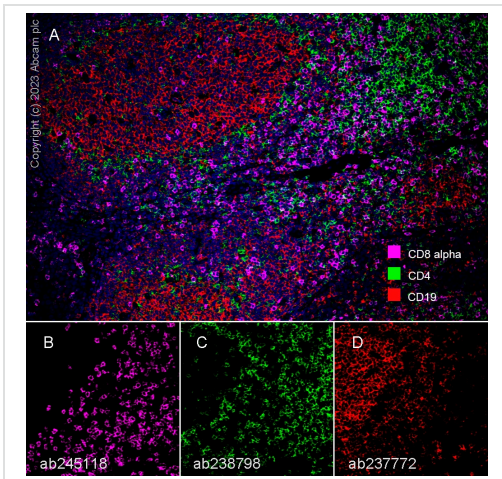
The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD4 antibody [SP35] - BSA and Azide free (ab238798)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human Hodgkin lymphoma tissue sections labeling CD4 with **ab213215** at 1/50 dilution (3.1 µg/ml). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Hematoxylin was used as a counterstain. Positive staining on the human Hodgkin's lymphoma, performed on a Leica Biosystems BOND™ RX instrument.

The section was incubated with **ab213215** for 30 mins at room temperature. This image was generated using **ab213215**, the same clone, but with a different buffer formulation.



Multiplex immunohistochemistry - Anti-CD4 antibody [SP35] - BSA and Azide free (ab238798)

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded Human tonsil tissue labeling CD8 alpha with **ab245118** at 1/500 dilution, CD4 with ab238798 at 1/500, and CD19 with **ab237772** at 1/5000 dilution.

Panel A: merged staining of anti-CD8 alpha (magenta; Opal™690), anti-CD4 (green; Opal™520) and anti-CD19 (red; Opal™570) on human tonsil.

Panel B: anti-CD8 alpha stained on cytotoxic T cells.

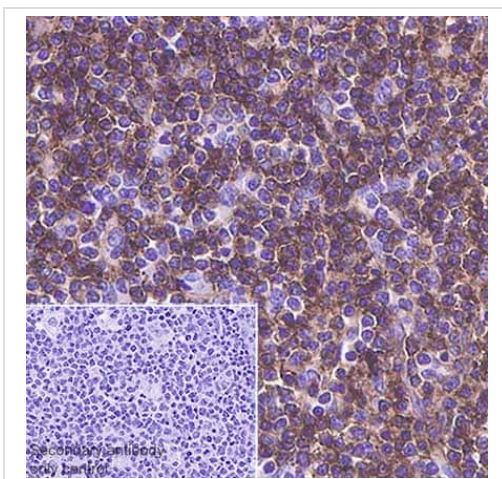
Panel C: anti-CD4 stained on T helper cells.

Panel D: anti-CD19 stained on B cells.

Sections were treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins before antibody incubation. The section was incubated in three rounds of staining: in the order of **ab245118** for 30 mins, then ab238798 and **ab237772** for 10 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

DAPI was used as a nuclear counterstain.

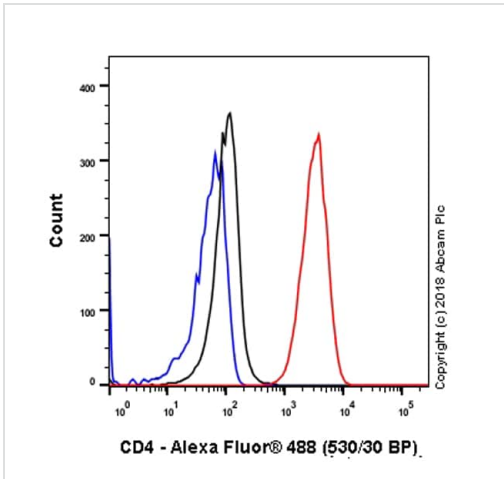
The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD4 antibody [SP35] - BSA and Azide free (ab238798)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human tonsil tissue sections labeling CD4 with **ab213215** at 1/50 dilution (3.1 µg/ml). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Hematoxylin was used as a counterstain. Positive staining on the human tonsil, performed on a Leica Biosystems BOND™ RX instrument.

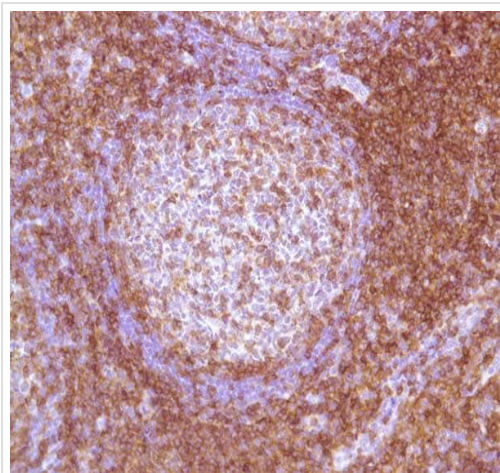
The section was incubated with **ab213215** for 30 mins at room temperature. This image was generated using **ab213215**, the same clone, but with a different buffer formulation.



Flow Cytometry - Anti-CD4 antibody [SP35] - BSA and Azide free (ab238798)

Flow cytometry analysis of THP-1 (human acute monocytic leukemia) labeling CD4 with purified **ab213215** at 1/20 dilution (7.75 µg/ml) (red). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150081**) at 1/2000 dilution was used as a secondary antibody. Isotypecontrol - Rabbit monoclonal IgG (**ab172730**) (black). Unlabeled control - Unlabelled cells (blue).

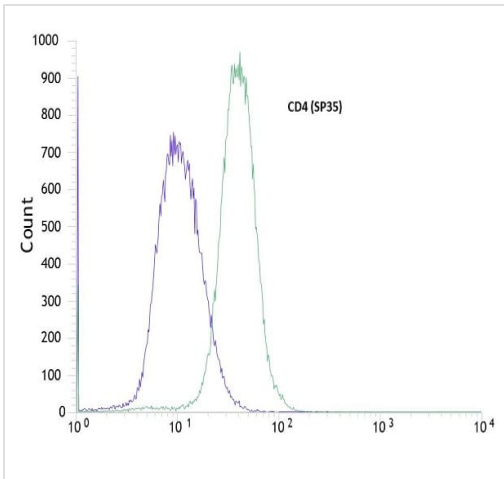
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab213215**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD4 antibody [SP35] - BSA and Azide free (ab238798)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human tonsil tissue labeling CD4 with **ab213215** at 1/50 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, and sodium azide (**ab213215**).



Flow Cytometry - Anti-CD4 antibody [SP35] - BSA and Azide free (ab238798)

Flow cytometric analysis of rabbit anti-CD4 (SP35) antibody, prediluted, **ab101530** in Jurkats cells (green) compared to negative control of rabbit IgG (blue)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab101530**).

| Tissue Microarray (TMA) data for ab213215 | | | |
|---|--------------------|------------------------------|--------------------|
| Normal tissue samples | | Malignant tissue samples | |
| Human cerebrum | x | Human placenta | x |
| Human colon | x (immune cells ✓) | Human skeletal muscle | x |
| Human endometrium | x (immune cells ✓) | Human skin | x (immune cells ✓) |
| Human kidney | x | Human spleen | ✓ |
| Human liver | x (immune cells ✓) | Human stomach | x (immune cells ✓) |
| Human lung | x (immune cells ✓) | Human testis | x |
| Human mammary gland | x (immune cells ✓) | Human thyroid | x |
| Human pancreas | x | Human tonsil | ✓ |
| | | Human Hodgkin's lymphoma | ✓ |
| | | Human non-Hodgkin's lymphoma | ✓ |
| | | Human thymoma | ✓ |
| | | Human thymus carcinoma | ✓ |

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD4 antibody [SP35] - BSA and Azide free (ab238798)

Tissue Microarrays stained for " Anti-CD4 antibody [SP35]" using "**ab213215**" in immunohistochemical analysis. This table provides a detailed overview of positive (tick mark) and negative (cross mark) staining per sample type tested. The sections were pre-treated using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 10 minutes. The sections were incubated with **ab213215** for 30 mins at room temperature followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). The immunostaining was performed on a Leica Biosystems BOND® RX 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-CD4 antibody [SP35] - BSA and Azide free
(ab238798)

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

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