

## CD8

Concentrated and Prediluted Rabbit Monoclonal Antibody  
902-311-062118

**BIOCARE**  
M E D I C A L

<b>Catalog Number:</b>	<b>ACR 311 A, C</b>	<b>APR 311 AA</b>
<b>Description:</b>	0.1, 1.0 ml, concentrated	6.0 ml, prediluted
<b>Dilution:</b>	1:50	Ready-to-use
<b>Diluent:</b>	Van Gogh Yellow	N/A

### Intended Use:

For Research Use Only. Not for use in diagnostic procedures.

### Summary and Explanation:

CD8 is a cell surface glycoprotein member of the immunoglobulin superfamily. CD8 consists of two chains, alpha and beta, which are expressed as a disulphide-linked alpha/beta heterodimer or as an alpha/alpha homodimer on a subset of T-cells, thymocytes and NK cells. The majority of CD8+ T cells express CD8 as alpha/beta heterodimer. CD8 functions as a co-receptor in concert with TCR for binding the MHC class I/peptide complex. The HIV-2 envelope glycoprotein binds CD8 alpha chain (but not beta chain). MHC class I restricted receptor; binds to nonpolymorphic region of class I molecules and may increase avidity of interactions between cytotoxic T-cell and target cell during antigen-specific activation. Studies have shown that CD8 stains cortical thymocytes (70-80%), T-cells (25-35% of mature peripheral T-cells, mostly cytotoxic T-cells); NK cells (30%, which are also CD3 negative). CD8 has been shown to be an important marker to analyze T-cell mediated inflammatory dermatoses and is useful for analysis of mycosis fungoides.

### Principle of Procedure:

Antigen detection in tissues and cells is a multi-step immunohistochemical process. The initial step binds the primary antibody to its specific epitope. After labeling the antigen with a primary antibody, an enzyme labeled polymer is added to bind to the primary antibody. This detection of the bound antibody is evidenced by a colorimetric reaction.

**Source:** Rabbit monoclonal

**Species Reactivity:** Human; others not tested

**Clone:** SP16

**Isotype:** IgG

**Total Protein Concentration:** ~10 mg/ml. Lot specific Ig concentration is not available.

**Epitope/Antigen:** CD8

**Cellular Localization:** Cell surface

**Positive Tissue Control:** Tonsil

### Known Applications:

Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

**Supplied As:** Buffer with protein carrier and preservative

### Storage and Stability:

Store at 2°C to 8°C. Do not use after expiration date printed on vial. If reagents are stored under conditions other than those specified in the package insert, they must be verified by the user. Diluted reagents should be used promptly; any remaining reagent should be stored at 2°C to 8°C.

### Staining Protocol Recommendations:

**Peroxide Block:** Block for 5 minutes with Biocare's Peroxidized 1.

**Pretreatment:** Perform heat retrieval using Biocare's Diva or Reveal Decloaker. Refer to the Diva or Reveal Decloaker product data sheet for specific instructions.

**Protein Block (Optional):** Incubate for 5-10 minutes at RT with Biocare's Background Punisher.

**Primary Antibody:** Incubate for 30 minutes at RT.

**Probe:** N/A

**Polymer:** Incubate for 30 minutes at RT with a secondary-conjugated polymer.

### Staining Protocol Recommendations Cont'd:

**Chromogen:** Incubate for 5 minutes at RT with Biocare's DAB - OR - Incubate for 5-7 minutes at RT with Biocare's Warp Red.

**Counterstain:** Counterstain with hematoxylin. Rinse with deionized water. Apply Tacha's Bluing Solution for 1 minute. Rinse with deionized water.

### Technical Note:

1. This antibody stains normal colon mucosa.

2. This antibody has been standardized with Biocare's MACH 4 detection system. Use TBS buffer for washing steps.

### Limitations:

This product is provided for Research Use Only (RUO) and is not for use in diagnostic procedures. Suitability for specific applications may vary and it is the responsibility of the end user to determine the appropriate application for its use.

### Precautions:

1. This antibody contains less than 0.1% sodium azide. Concentrations less than 0.1% are not reportable hazardous materials according to U.S. 29 CFR 1910.1200, OSHA Hazard communication and EC Directive 91/155/EC. Sodium azide (NaN<sub>3</sub>) used as a preservative is toxic if ingested. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. (Center for Disease Control, 1976, National Institute of Occupational Safety and Health, 1976) (4)

2. Specimens, before and after fixation, and all materials exposed to them should be handled as if capable of transmitting infection and disposed of with proper precautions. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents and specimens. If reagents or specimens come into contact with sensitive areas, wash with copious amounts of water. (5)

3. Microbial contamination of reagents may result in an increase in nonspecific staining.

4. Incubation times or temperatures other than those specified may give erroneous results. The user must validate any such change.

5. Do not use reagent after the expiration date printed on the vial.

6. The SDS is available upon request and is located at <http://biocare.net>.

### Technical Support:

Contact Biocare's Technical Support at 1-800-542-2002 for questions regarding this product.

### References:

1. Deguchi M, *et al.* Proliferative activity of CD8(+) T cells as an important clue to analyze T cell-mediated inflammatory dermatoses. *Arch Dermatol Res.* 2001 Sep;293 (9):442-7.

2. Izban KF, *et al.* Immunohistochemical analysis of mycosis fungoides on paraffin-embedded tissue sections. *Mod Pathol.* 1998 Oct;11(10):978-82.

3. Williamson SL, *et al.* New monoclonal antibodies to the T cell antigens CD4 and CD8. Production and characterization in formalin-fixed paraffin-embedded tissue. *Am J Pathol.* 1998 Jun;152(6):1421-6.

4. Center for Disease Control Manual. Guide: Safety Management, NO. CDC-22, Atlanta, GA. April 30, 1976 "Decontamination of Laboratory Sink Drains to Remove Azide Salts."

5. Clinical and Laboratory Standards Institute (CLSI). Protection of Laboratory Workers from Occupationally Acquired Infections; Approved Guideline-Fourth Edition CLSI document M29-A4 Wayne, PA 2014.



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