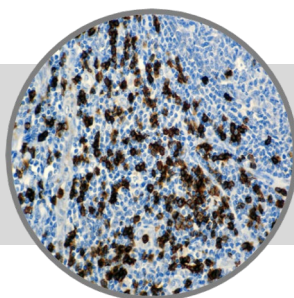


**CD8****Clone: C8/144B****Mouse Monoclonal****RUO****Bio SB**  
BIOSCIENCE FOR THE WORLD

www.biosb.com

*Inset: IHC of CD8 on a FFPE Tonsil Tissue***Intended Use**

For Research Use Only.

This antibody is intended for use in Immunohistochemical applications on formalin-fixed paraffin-embedded tissues (FFPE), frozen tissue sections and cell preparations. Interpretation of results should be performed by a qualified medical professional.

**Immunogen**

A 13 amino acid synthetic peptide from the C-terminal cytoplasmic domain of alpha chain of human CD8 molecule.

**Summary and Explanation**

CD8 is a transmembrane glycoprotein that serves as a co-receptor for the T-cell receptor (TCR). Like the TCR, CD8 binds to a major histocompatibility complex (MHC) molecule that is specific for the Class I MHC protein. To function, CD8 forms a dimer, consisting of a pair of CD8 chains. The most common form of CD8 is composed of a CD8- $\alpha$  and CD8- $\beta$  chain, both members of the immunoglobulin superfamily with an immunoglobulin variable (IgV)-like extracellular domain connected to the membrane by a thin stalk, and an intracellular tail.

CD8 is a T-cell marker for the detection of cytotoxic/suppressor cells of blood lymphocytes. CD8 is also detected on NK cells, most thymocytes, a subpopulation of null cells and bone marrow cells. This antibody is used to distinguish between reactive and neoplastic T-cells.

<b>Antibody Type</b>	Mouse Monoclonal	<b>Clone</b>	C8/144B
<b>Isotype</b>	IgG1/K	<b>Reactivity</b>	Paraffin, Frozen
<b>Localization</b>	Membranous	<b>Control</b>	Tonsil, Lymph Node,
<b>Species Reactivity</b>		Human, Mouse, Rat	

**Precautions**

1. For professional users only. Results should be interpreted by a qualified medical professional.
2. This product contains <0.1% sodium azide (NaN<sub>3</sub>) as a preservative. Ensure proper handling procedures are used with this reagent.
3. Always wear personal protective equipment such as laboratory coat, goggles and gloves when handling reagents.
4. Dispose of unused solution with copious amount of water.
5. Do not ingest reagent. If reagent is ingested, seek medical advice immediately.
6. Avoid contact with eyes. If contact occurs, flush with large quantities of water.
7. Follow safety precautions of the heating device used for epitope retrieval (TintoRetriever Pressure Cooker or similar).
8. For additional safety information refer to Safety Data Sheet for this product.
9. For complete recommendations for handling biological specimens, please refer to the CDC document, "Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories" (see References in this document).

**Presentation**

CD8 is a mouse monoclonal antibody derived from tissue culture supernatant diluted in Phosphate Buffered Saline, pH 7.6, with protein base, and preserved with Sodium Azide preservative.

<i>Catalog No.</i>	<i>Antibody Type</i>	<i>Dilution</i>	<i>Volume/Qty</i>
BSB 5169	Tinto Prediluted	Ready-to-Use	3.0 mL
BSB 5170	Tinto Prediluted	Ready-to-Use	7.0 mL
BSB 5171	Tinto Prediluted	Ready-to-Use	15.0 mL
BSB 5172	Concentrated	1:250 - 1:1000	0.1 mL
BSB 5173	Concentrated	1:250 - 1:1000	0.5 mL
BSB 5174	Concentrated	1:250 - 1:1000	1.0 mL

**Control Slides Available**

<i>Catalog No.</i>	<i>Quantity</i>
BSB 5175	5 slides

**Storage** Store at 2-8°C (Control Slides: Store at 20-25°C)

**Stability**

**This product is stable up to the expiration date on the product label.** Do not use after expiration date listed on package label. Temperature fluctuations should be avoided. Store appropriately when not in use, and avoid prolonged exposure to room temperature conditions.

**Specimen Preparation**

**Paraffin sections:** The antibody can be used on formalin-fixed paraffin-embedded (FFPE) tissue sections. Ensure tissue undergoes appropriate fixation for best results. Pre-treatment of tissues with heat-induced epitope retrieval (HIER) is recommended using Bio SB ImmunoDNA Retriever with Citrate (BSB 0020-BSB 0023), ImmunoDNA Retriever with EDTA (BSB 0030-BSB 0033) or ImmunoDNA Digestor (BSB 0108-0112). See reverse side for complete protocol. Tissue should remain hydrated via use of Bio SB Immuno/DNA Washer solutions (BSB 0029 & BSB 0042).

**Frozen sections and cell preparations:** The antibody can be used for labeling acetone-fixed frozen sections and acetone-fixed cell preparations.

## Staining Procedure

1. Cut and mount 3-5 micron formalin-fixed paraffin-embedded tissues on positively charged slides such as Bio SB Hydrophilic Plus Slides (BSB 7028).
2. Air dry for 2 hours at 58° C.
3. Deparaffinize, dehydrate and rehydrate tissues.
4. Subject tissues to heat induced epitope retrieval (HIER) using a suitable retrieval solution such as ImmunoDNA Retriever with Citrate (BSB 0020-BSB 0023) or EDTA (BSB 0030-BSB 0033).
5. Any of three heating methods may be used:
  - a. TintoRetriever Pressure Cooker or Equivalent**  
Place tissues/slides in a staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA, and place on trivet in the pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high. Incubate for 15 minutes. Open and immediately transfer slides to room temperature.
  - b. TintoRetriever PT Module or Water Bath Method**  
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA at 95°-99° C. Incubate for 30-60 minutes.
  - c. Conventional Steamer Method**  
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA in a steamer, cover and steam for 30-60 minutes.
6. After heat treatment, transfer slides in ImmunoDNA Retriever with Citrate or EDTA to room temperature and let stand for 15-20 minutes.
7. For manual staining, perform antibody incubation at ambient temperature. For automated staining methods, perform antibody incubation according to instrument manufacturer's instructions.
8. Wash slides with ImmunoDNA washer or DI water.
9. Continue IHC staining protocol. Wash slides between each step with ImmunoDNA washer solution.

## Abbreviated Immunohistochemical Protocol

Step	ImmunoDetector AP/HRP	PolyDetector AP/HRP	PolyDetector Plus HRP
Peroxidase/AP Blocker	5 min.	5 min.	5 min.
Primary Antibody	30-60 min.	30-60 min.	30-60 min.
1st Step Detection	10 min.	30-45 min.	15 min.
2nd Step Detection	10 min.	Not Applicable	15 min.
Substrate-Chromogen	5-10 min.	5-10 min.	5-10 min.
Counterstain / Coverslip	Varies	Varies	Varies

## Mounting Protocols

For detailed instructions using biodegradable permanent mounting media such as XyGreen PermaMounter (BSB 0169-0174) or organic solvent based resin such as PermaMounter (BSB 0094-0097), refer to PI0174 or PI0097.

## Product Limitations

Normal Tissues	
Positive (+)	
cytotoxic/suppressor T cells of spleen	cytotoxic/suppressor T cells of spleen
cytotoxic/suppressor T cells tonsil	cytotoxic/suppressor T cells tonsil
Splenic sinusoidal lining cells	Splenic sinusoidal lining cells
cytotoxic/suppressor T cells in rectum	cytotoxic/suppressor T cells in rectum
cytotoxic/suppressor T cells in sigmoid colon	cytotoxic/suppressor T cells in sigmoid colon
cytotoxic/suppressor T cells in descending colon	cytotoxic/suppressor T cells in descending colon
cytotoxic/suppressor T cells in transverse colon	cytotoxic/suppressor T cells in transverse colon
cytotoxic/suppressor T cells in ascending colon	cytotoxic/suppressor T cells in ascending colon
cytotoxic/suppressor T cells in caecum	cytotoxic/suppressor T cells in caecum
Abnormal Tissues	
Positive (+)	
cytotoxic/suppressor T cells in Crohn's disease, ulcerative colitis	
cytotoxic/suppressor T cells in mycosis fungoides	







## Product Limitations

Due to inherent variability present in immunohistochemical procedures (including fixation time of tissues, dilution factor of antibody, retrieval method utilized and incubation time), optimal performance should be established through the use of positive and negative controls. Results should be interpreted by a qualified medical professional.

## References

1. Gao G, Jakobsen B, Immunol Today. 2000;21(12):630-636
2. Rossi ML, Sanchez FC, et al. J Clin Path. 1988;41:314-319
3. Stein H, Lennart K, et al. Adv Cancer Res. 1984;42:67-147
4. Phan-Dinh-Tuy F, Niaudet P, et al. Mol Immun. 1982;19:1649-1654
5. U.S. Department of Health and Human Services: Centers for Disease Control and Prevention. Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories. Supplement / Vol. 61, January 6, 2012.

## Symbol Key / Légende des symboles/Erläuterung der Symbole

	Storage Temperature Limites de température Zulässiger Temperaturbereich		Manufacturer Fabricant Hersteller		Catalog Number Référence du catalogue Bestellnummer
	Read Instructions for Use Consulter les instructions d'utilisation Gebrauchsanweisung beachten		Expiration Date Utiliser jusque Verwendbar bis		Lot Number Code du lot Chargenbezeichnung



69 Santa Felicia Dr., Santa Barbara, CA 93117, USA  
Tel. (805) 692-2768 | Tel. (800) 561-1145 | Fax. (805) 692-2769  
E-mail: sales@biosb.com | Website: www.biosb.com