



CD8

IHC of CD8 on an FFPE Tonsil Tissue

Description 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- α and CD8- β 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.

Antibody Type	Mouse Monoclonal	Clone	C8/144B
Isotype	IgG/K	Reactivity	Paraffin, Frozen
Localization	Membranous	Control	Tonsil, Lymph Node
Storage	Store at 2°-8°C	Stability	2 years

For long-term storage of the concentrated antibody, it is recommended that aliquots of the antibody be frozen at -20°C in glycerol 50% (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Dilute using an antibody diluent such as ImmunoDetector Protein Block/Antibody Diluent (BSB 0040 and BSB 0041) or ImmunoDNA Background Blocker (BSB 0103-BSB 0107).

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.

Availability	Catalog No.	Antibody Type	Dilution	Volume/QTY
	BSB 5169	Prediluted	Ready-To-Use	3.0 ml
	BSB 5170	Prediluted	Ready-To-Use	7.0 ml
	BSB 5171	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
	BSB 5175	Control Slides		5

Note: For concentrated antibodies, please centrifuge prior to use to ensure recovery of all product.

- 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

Protocol Suggested protocol on reverse

Recommended Immunohistochemical Protocol

- Pretreatment**
1. Cut and mount 3-4 micron formalin-fixed paraffin-embedded tissues on positive charged slides.
 2. Air dry for 2 hours at 58° C.
 3. Deparaffinize, dehydrate and rehydrate tissues.
 4. Subject tissues to heat epitope retrieval 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. **Electric Pressure Cooker**
Place standoff rack at base of pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high, and incubate for 15 minutes. Open and immediately transfer slides to room temperature.
 - b. **Water Bath Method**
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the **ImmunoDNA Retriever with Citrate** or **EDTA** in a water bath set 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. Wash slides with IHC wash buffer or DI water.
 8. Continue IHC staining protocol.

Immunohistochemical Protocol

Step	ImmunoDetector (AP or HRP)	PolyDetector (AP or HRP)
Peroxidase/AP Block	5 minutes	5 minutes
Primary Antibody	30 minutes	45 minutes
Secondary Biotinylated Link	10 minutes	Not Applicable
AP or HRP Label	10 minutes	45 minutes
Substrate-Chromogen	5-10 minutes	10 minutes
Counterstaining	Time varies with counterstain	Time varies with counterstain

