



CD10

IHC of CD10 on an FFPE Tonsil Tissue

Description CD10, also known as neutral endopeptidase (NEP), Nephilysin, and common Acute Lymphoblastic Leukemia antigen (CALLA), is a zinc-dependent metalloprotease enzyme that degrades a number of small secreted peptides, most notably the amyloid beta peptide whose abnormal misfolding and aggregation in neural tissue has been implicated as a cause of Alzheimer's Disease.

CD10 is a useful marker for the characterization of childhood Leukemia and B-cell Lymphomas. This antibody reacts with the antigens of Lymphoblastic, Burkitt's, and Follicular Lymphomas, and Chronic Myelocytic Leukemia. Also, CD10 detects the antigen of glomerular epithelial cells and the brush border of the proximal tubules. This characteristic may be helpful in interpreting renal ontogenesis, in conjunction with other markers. Other non-lymphoid cells that are reactive with CD10 are breast myoepithelial cells, bile canaliculi, neutrophils, a small population of bone marrow cells, fetal small intestine epithelium, and normal fibroblasts.

Antibody Type	Mouse Monoclonal	Clone	56C6
Isotype	IgG1	Reactivity	Paraffin, Frozen
Localization	Cytoplasmic, Membranous	Control	Kidney, 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 CD10 is a mouse monoclonal antibody from 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 5176	Prediluted	Ready-To-Use	3.0 ml
	BSB 5177	Prediluted	Ready-To-Use	7.0 ml
	BSB 5178	Prediluted	Ready-To-Use	15.0 ml
	BSB 5179	Concentrated	1:10-1:40	0.1 ml
	BSB 5180	Concentrated	1:10-1:40	0.5 ml
	BSB 5181	Concentrated	1:10-1:40	1.0 ml
	BSB 5182	Control Slides		5

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

- References**
- Pardossi-Piquard R, et al. *Journal of Neurochemistry*. 2006;97(4):1052-6
 - Haralambidou S, et al. *J Clin Pathol*. 1987;40:490-493
 - Mechterscheimer, et al. *Am J of Pathol*. 1989;134(5):961-965

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

