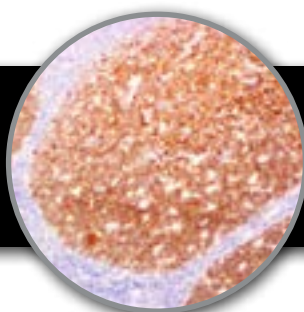


CD10, RMab

Clone: EP195
Rabbit Monoclonal



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Inset: IHC of CD10 on a FFPE Tonsil Tissue

Intended Use

For In Vitro Diagnostic Use.

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.

* The CD10 antibody, clone EP195, has been manufactured using Epitomics RabMab® technology covered under Patent No's 5,675,063 and 7,402,409.

Immunogen

A recombinant fragment corresponding to residues in human CD10 protein.

Summary and Explanation

CD10, also known as neutral endopeptidase (NEP), Neprilysin, 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	Rabbit Monoclonal	Clone	EP195
Isotype	IgG	Reactivity	Paraffin, Frozen
Localization	Cytoplasmic, Mem-branous	Control	Kidney, Tonsil, Lymph Node
Species Reactivity	Human		

Presentation

CD10 is a rabbit monoclonal antibody from supernatant diluted in Phosphate Buffered Saline, pH 7.6, with protein base, and preserved with Sodium Azide preservative.

Presentations

Catalog Num.	Antibody Type	Dilution	Volume/Qty
BSB 6429	Tinto Prediluted	Ready-to-Use	3.0 mL
BSB 6430	Tinto Prediluted	Ready-to-Use	7.0 mL
BSB 6431	Tinto Prediluted	Ready-to-Use	15.0 mL
BSB 6432	Concentrated	1:10 - 1:50	0.1 mL
BSB 6433	Concentrated	1:10 - 1:50	0.5 mL
BSB 6434	Concentrated	1:10 - 1:50	1.0 mL
BSB 6435	Control Slides	Not Applicable	5 slides

Precautions

1. For professional users only. Ensure results are interpreted by a medical professional.
2. This product contains sodium azide (NaN₃), a toxic chemical which may react with plumbing to form highly explosive build-ups of metal azides. Upon disposal, flush with large volumes of water to prevent sodium azide build-up.
3. Ensure proper handling procedures are used with reagent. Always wear proper laboratory equipment such as laboratory coat and gloves when handling reagents.
4. Unused solution should be disposed of according to local and federal regulations.
5. Do not ingest reagent. If reagent ingested, contact a poison control center immediately.
6. 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" (4).

Storage

Store at 2-8 °C. 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 to ensure 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 positive 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 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. 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 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 IHC wash buffer or DI water.
9. Continue IHC staining protocol.





Recommended IHC 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	Varies	Varies	Varies

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 medical professional.

Symbol Key / Légende des symboles/Erläuterung der Symbole

EC REP	EMERGO EUROPE Prinsessegracht 20 2514 AP The Hague The Netherlands		Storage Temperature Limites de température Zulässiger Temperaturbereich		Manufacturer Fabricant Hersteller	REF	Catalog Number Référence du catalogue Bestellnummer
IVD	In Vitro Diagnostic Medical Device Dispositif médical de diagnostic in vitro In-Vitro-Diagnostikum		Read Instructions for Use Consulter les instructions d'utilisation Gebrauchsanweisung beachten		Expiration Date Utiliser jusque Verwendbar bis	LOT	Lot Number Code du lot Chargenbezeichnung

Performance Characteristics

Normal Tissues

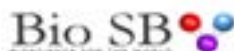
Positive (+)	
bile canaliculi	germinal center B cells
stem cells in the bone marrow	renal glomerular
tubular cells	interstitial stromal cells of the lung
Schwann nerve cells	fibroblasts
syncytial trophoblasts of the placenta	cytotrophoblasts of the placenta
Prostatic glandular epithelium	prostatic fluid
breast myoepithelial cells	stromal cells in the endometrium
Subset of immature B cells and neurophils in bone marrow	
germinal centers in lamina propria of colon	
Brush borders of the enterocytes in the small intestine	
interfascicular stromal cells in striated muscles	

Abnormal Tissues

Positive (+)	
Burkitt lymphomas 3/3 and 2/3	
precursor B-cell acute lymphoblastic 4/5 and 30/33 leukemia (B-ALL)	
follicular lymphomas 22/28, 12/15, 9/10 and 10/11	
grade I follicular 12/15 lymphomas	
renal cell carcinoma 41/46	
metastatic renal clear cell carcinomas	
precursor T- acute lymphoblastic 2/5 leukemia (T-ALL)	
diffuse large B-cell lymphoma 11/11	
Negative (-)	
follicular lymphoma grade II 5/6	

References

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



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