**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.

**Immunogen**

Recombinant external domain of the human CD glycoprotein.

**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 ontogeny, 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.

**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.

**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.

**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.

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<table>
<thead>
<tr>
<th>Antibody Type</th>
<th>Volume/Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tinto Prediluted</td>
<td>Ready-to-Use</td>
</tr>
<tr>
<td>Tinto Prediluted</td>
<td>Ready-to-Use</td>
</tr>
<tr>
<td>Tinto Prediluted</td>
<td>Ready-to-Use</td>
</tr>
<tr>
<td>Concentrated</td>
<td>1:10 - 1:50</td>
</tr>
<tr>
<td>Concentrated</td>
<td>1:10 - 1:50</td>
</tr>
<tr>
<td>Concentrated</td>
<td>1:10 - 1:50</td>
</tr>
<tr>
<td>Control Slides</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

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**Antibody Type**

Mouse Monoclonal

**Clone**

56C6

**Isotype**

IgG1

**Reactivity**

Paraffin, Frozen

**Localization**

Cytoplasmic, Membranous

**Control**

Kidney, Tonsil, Lymph Node

**Species Reactivity**

Human, Canine, Feline, Mouse, Rat
**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
   b. TintoRetriever PT Module or Water Bath Method
   c. Conventional Steamer Method

**Performance Characteristics**

<table>
<thead>
<tr>
<th>Normal Tissues</th>
<th>Positive (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>bile canaliculi</td>
<td>germinal center B cells</td>
</tr>
<tr>
<td>stem cells in the bone marrow</td>
<td>renal glomerular</td>
</tr>
<tr>
<td>tubular cells</td>
<td>interstitial stromal cells of the lung</td>
</tr>
<tr>
<td>Schwann nerve cells</td>
<td>fibroblasts</td>
</tr>
<tr>
<td>syncitial trophoblasts of the placenta</td>
<td>cytotrophoblasts of the placenta</td>
</tr>
<tr>
<td>Prostatic glandular epithelium</td>
<td>prostatic fluid</td>
</tr>
<tr>
<td>breast myoepithelial cells</td>
<td>stromal cells in the endometrium</td>
</tr>
<tr>
<td>Subset of immature B cells and neutrophils in bone marrow</td>
<td>germinal centers in lamina propria of colon</td>
</tr>
<tr>
<td>Brush borders of the enterocytes in the small intestine</td>
<td>interfascicular stromal cells in striated muscles</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Abnormal Tissues</th>
<th>Positive (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burkitt lymphomas 3/3 and 2/3</td>
<td></td>
</tr>
<tr>
<td>precursor B-cell acute lymphoblastic 4/5 and 30/33 leukemia (B-ALL)</td>
<td></td>
</tr>
<tr>
<td>follicular lymphomas 22/28, 12/15, 9/10 and 10/11 grade I follicular 12/15 lymphomas</td>
<td></td>
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<tr>
<td>renal cell carcinoma 41/46</td>
<td></td>
</tr>
<tr>
<td>metastatic renal clear cell carcinomas</td>
<td></td>
</tr>
<tr>
<td>precursor T- acute lymphoblastic 2/5 leukemia (T-ALL)</td>
<td></td>
</tr>
<tr>
<td>diffuse large B-cell lymphoma 11/11</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Negative (-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>follicular lymphoma grade II 5/6</td>
</tr>
</tbody>
</table>

**References**


**Recommended IHC Protocol**

- **Step**
  - Peroxidase/AP Blocker
  - Primary Antibody
  - 1st Step Detection
  - 2nd Step Detection
  - Substrate-Chromogen
  - Counterstain

- **ImmunoDetector AP/HRP**
  - 5 min.
  - 30-60 min.
  - 10 min.
  - 5-10 min.
  - Varies

- **PolyDetector AP/HRP**
  - 5 min.
  - 30-60 min.
  - 15 min.
  - 5-10 min.
  - Varies

- **PolyDetector Plus HRP**
  - 5 min.
  - 30-60 min.
  - 15 min.
  - 5-10 min.
  - Varies

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

- **EC**
- **REP**
- **IVD**
- **Manufacturer**
- **Catalog Number**
- **Storage Temperature**
- **Expiration Date**
- **EC**
- **REP**
- **IVD**
- **Manufacturer**
- **Catalog Number**

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