Follicular Dendritic Cell
Clone: CNA.42
Mouse Monoclonal

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
Splenocytes from nude mice grafted with the human lymphoblastic CEM T-cell line.

Summary and Explanation
Follicular Dendritic Cells (FDC) are immune cells whose main function is to process antigen material and present it superficially to other cells of the immune system. Dendritic cells are present in small quantities in tissues that are in contact with the external environment, mainly the skin (where they are often called Langerhans cells) and the inner lining of the nose, lungs, stomach and intestines. They can also be found in an immature state in the blood. Once activated, they migrate to the lymphoid tissues where they interact with T-cells and B-cells to initiate and shape the immune response.

Anti-FDC is useful in the identification of follicular dendritic cell matrix found in normal lymph nodes and tonsillar tissue. This antibody has been found to label cells in approximately 60% of Anaplastic Large-Cell Lymphomas, and approximately 45% of T-cell Lymphomas. This antibody also labels Follicular Dendritic Cell Tumors. Several normal non-lymphoid tissues are labeled with anti-FDC: pancreatic islet cells, gastric chief cells, myelin sheaths, salivary glands, Leydig cells of the testis, and endothelial cells.

Presentation
Anti-FDC is a mouse monoclonal antibody derived from cell culture supernatant that is concentrated, dialyzed, filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a 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.
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.
5. After heat treatment, transfer slides in ImmunoDNA Retriever with Citrate or EDTA to room temperature and let stand for 15-20 minutes.
6. For manual staining, perform antibody incubation at ambient temperature. For automated staining methods, perform antibody incubation according to instrument manufacturer’s instructions.
7. Wash slides with IHC wash buffer or DI water.
8. Continue IHC staining protocol.

Recommended IHC Protocol

<table>
<thead>
<tr>
<th>Step</th>
<th>ImmunoDetector</th>
<th>PolyDetector</th>
<th>PolyDetector Plus HRP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peroxidase/AP Blocker</td>
<td>5 min.</td>
<td>5 min.</td>
<td>5 min</td>
</tr>
<tr>
<td>Primary Antibody</td>
<td>30-60 min.</td>
<td>30-60 min.</td>
<td>30-60 min.</td>
</tr>
<tr>
<td>1st Step Detection</td>
<td>10 min.</td>
<td>30-45 min.</td>
<td>15 min.</td>
</tr>
<tr>
<td>2nd Step Detection</td>
<td>10 min.</td>
<td>Not Applicable</td>
<td>15 min.</td>
</tr>
<tr>
<td>Substrate-Chromogen</td>
<td>5-10 min.</td>
<td>5-10 min.</td>
<td>5-10 min.</td>
</tr>
<tr>
<td>Counterstain</td>
<td>Varies</td>
<td>Varies</td>
<td>Varies</td>
</tr>
</tbody>
</table>

Symbol Key / Légende des symboles/Erläuterung der Symbole

<table>
<thead>
<tr>
<th>IVD</th>
<th>In Vitro Diagnostic Medical Device Disposit médical de diagnostic in vitro In-Vitro-Diagnostikum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Temperature</td>
<td>Limites de température</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Fabricant</td>
</tr>
<tr>
<td>Read Instructions for Use</td>
<td>Consulter les instructions d’utilisation Gebrauchsanweisung beachten</td>
</tr>
<tr>
<td>Expiration Date</td>
<td>Utiliser jusque Verwendbar bis</td>
</tr>
<tr>
<td>Catalog Number</td>
<td>REF</td>
</tr>
<tr>
<td>Lot Number</td>
<td>LOT</td>
</tr>
</tbody>
</table>

Performance Characteristics

Normal Tissues

- Positive (+)
  - and secondary lymphoid follicles in reactive lymph nodes, tonsils, white pulp of spleen and Peyer’s patches
  - In thymus, a subpopulation of large cortical thymocytes
  - In non-lymphoid organs the antibody labelled pancreatic islet cells, gastric chief cells, acini in salivary gland, Leydig cells of the testis, myelin sheaths, smooth muscles of the arterial wall, striated muscle fibers and endothelial cells

Abnormal Tissues

- Positive (+)
  - malignant cells in 6/129 (5%) cases of B-cell lymphomas
  - malignant cells in 30/184 (16%) cases of T-cell lymphomas
  - malignant cells in 23/105 (22%) cases of Hodgkin’s disease
  - malignant cells in 44/114 (39%) of diverse non-hematopoietic tumours such as different neurogenic tumours and carcinomas of gastrointestinal origin
  - In 11/11 cases of Epstein-Barr virus related inflammatory pseudotumour-like FDC tumours, the antibody labelled FDCs, scattered mononuclear cells, mast cells as well as and some epithelial and mesenchymal cells

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.

References


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