**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**

SU-DHL-4 lymphoma cells.

**Summary and Explanation**

CD74, also known as the MHC Class II-associated invariant chain (II), is a Type II transmembrane protein which binds to the peptide-binding groove of newly-synthesized MHC class II alpha/beta heterodimers and prevents their premature association with endogenous polypeptides. CD74 is expressed primarily by antigen-presenting cells such as B-lymphocytes (from before the pre-B-cell stage to before the plasma-cell stage), macrophages and monocytes, together with many epithelial cells.

CD74 stains predominantly germinal-center lymphocytes and B-cell lymphomas but rarely T-cell lymphomas. It stains the cell membrane but a paranuclear globular labeling is also noted. CD74 is useful in differentiating Atypical Fibroxanthoma from Malignant Fibrous Histiocytoma, as well as Small-cell Lung Carcinoma from Non-small cell Lung Carcinomas.

### Presentation

**Antibody Type** Mouse Monoclonal  **Clone** LN2  **Isotype** IgG1  **Reactivity** Paraffin, Frozen  **Localization** Cytoplasmic, Membranous  **Species Reactivity** Human

CD74 antibody 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.

### Presentations

<table>
<thead>
<tr>
<th>Catalog Num.</th>
<th>Antibody Type</th>
<th>Dilution</th>
<th>Volume/Qty</th>
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<td>BSB 5295</td>
<td>Tinto Prediluted</td>
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<td>BSB 5296</td>
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<td>7.0 mL</td>
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<td>BSB 5297</td>
<td>Tinto Prediluted</td>
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<td>BSB 5298</td>
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<td>0.1 mL</td>
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<td>BSB 5299</td>
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<td>1:25 - 1:100</td>
<td>0.5 mL</td>
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<td>BSB 5300</td>
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<tr>
<td>BSB 5301</td>
<td>Control Slides</td>
<td>Not Applicable</td>
<td>5 slides</td>
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</table>
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. Wash slides with IHC wash buffer or DI water.
8. Continue IHC staining protocol.

### 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

### Recommended IHC Protocol

<table>
<thead>
<tr>
<th>Step</th>
<th>ImmunoDetector AP/HRP</th>
<th>PolyDetector AP/HRP</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>
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<tr>
<td>Primary Antibody</td>
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<td>30-60 min.</td>
<td>30-60 min.</td>
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<td>1st Step Detection</td>
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<td>30-45 min.</td>
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<td>2nd Step Detection</td>
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<tr>
<td>Counterstain</td>
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<td>Varies</td>
<td>Varies</td>
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