**Product datasheet**

**Anti-CD20 antibody [L26] ab9475**

★★★★★ 6 Abreviews  24 References  4 Images

**Overview**

**Product name**  Anti-CD20 antibody [L26]
**Description**  Mouse monoclonal [L26] to CD20
**Host species**  Mouse
**Tested applications**  Suitable for: WB, IP, IHC-P, IHC-Fr, ICC/IF, Flow Cyt
**Species reactivity**  Reacts with: Human
**Immunogen**  Human tonsil B cells.
**Positive control**  Tonsil.

**Properties**

**Form**  Liquid
**Storage instructions**  Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
**Purity**  Tissue culture supernatant
**Clonality**  Monoclonal
**Clone number**  L26
**Myeloma**  unknown
**Isotype**  IgG2a
**Light chain type**  kappa

**Applications**

Our Abpromise guarantee covers the use of **ab9475** in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>WB</td>
<td>★★★★★</td>
<td>1/100 - 1/750. Predicted molecular weight: 33 kDa.</td>
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<tr>
<td>IP</td>
<td></td>
<td>1/100 - 1/750.</td>
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</table>
**Function**
This protein may be involved in the regulation of B-cell activation and proliferation.

**Tissue specificity**
Expressed on B-cells.

**Involvement in disease**
Defects in MS4A1 are the cause of immunodeficiency common variable type 5 (CVID5) [MIM:613495]; also called antibody deficiency due to CD20 defect. CVID5 is a primary immunodeficiency characterized by antibody deficiency, hypogammaglobulinemia, recurrent bacterial infections and an inability to mount an antibody response to antigen. The defect results from a failure of B-cell differentiation and impaired secretion of immunoglobulins; the numbers of circulating B cells is usually in the normal range, but can be low.

**Sequence similarities**
Belongs to the MS4A family.

**Post-translational modifications**
Phosphorylated. Might be functionally regulated by protein kinase(s).

**Cellular localization**
Membrane.

**Application**

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<td>IHC-P</td>
<td>1/20 - 1/50.</td>
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<tr>
<td>IHC-Fr</td>
<td>1/20 - 1/50.</td>
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<tr>
<td>ICC/IF</td>
<td>Use at an assay dependent dilution. PubMed: 21825174</td>
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<tr>
<td>Flow Cyt</td>
<td>Use at an assay dependent dilution. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.</td>
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**Images**

- Immunohistochemical analysis of paraffin embedded human tonsil tissue with ab9475 at 1 in 50 dilution.

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD20 antibody [L26] (ab9475)
Human peripheral blood lymphocytes stained with ab9475 (red line). Human whole blood was processed using a modified protocol based on Chow et al, 2005 (PMID: 16080188). In brief, human whole blood was fixed in 4% formaldehyde (methanol-free) for 10 min at 22°C. Red blood cells were then lysed by the addition of Triton X-100 (final concentration - 0.1%) for 15 min at 37°C. For experimentation, cells were treated with 50% methanol (-20°C) for 15 min at 4°C. Cells were then incubated with the antibody (ab9475, 0.1μg/1x10⁶ cells) for 30 min at 4°C. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H&L) (ab150113) at 1/2000 dilution for 30 min at 4°C. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (ab91361, 0.1μg/1x10⁶ cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >30,000 total events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. Gating strategy - peripheral blood lymphocytes.

Formalin fixed paraffin embedded human tonsil stained with CD20, B cell using ABC and Fast Red chromagen.
CD20 associates with phosphorylated proteins after BCR stimulation. Ramos cells were unstimulated or stimulated with F(ab')2 anti-Igµ for the times and temperatures indicated. Cells were lysed in digitonin, and CD20 was immunoprecipitated from cleared lysates. Immunoprecipitates were probed using anti-phosphotyrosine (ptyr) (n = 4). The membranes were stripped and reprobed for CD20 using ab9475 (lower panel).

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