Product datasheet

Anti-CD20 antibody [L26] ab9475

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.

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<th>Application</th>
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<tr>
<td>WB</td>
<td>4/5</td>
<td>1/100 - 1/750. Predicted molecular weight: 33 kDa.</td>
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<tr>
<td>IP</td>
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<td>1/100 - 1/750.</td>
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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.

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)

Application | Abreviews | Notes |
--- | --- | --- |
IHC-P | | 1/20 - 1/50. |
IHC-Fr | | 1/20 - 1/50. |
ICC/IF | | Use at an assay dependent dilution. PubMed: 21825174 |
Flow Cyt | | Use at an assay dependent dilution. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody. |
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/1x10^6 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/1x10^6 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.

ab9475 - immunohistochemistry

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).