**Anti-CD24 antibody [ALB 9] ab31622**

**Product name**: Anti-CD24 antibody [ALB 9]

**Description**: Mouse monoclonal [ALB 9] to CD24

**Host species**: Mouse

**Specificity**: The clone number has been updated from (8.B.76) to (ALB 9) both clone numbers name the same antibody clone.

**Tested applications**: Suitable for: ICC, Flow Cyt, IHC-Fr, IHC-P

**Species reactivity**: Reacts with: Human

**Immunogen**: Human bone marrow malignant cells from a non-B, non-T acute leukemia. MW: 35-45kD.

**Positive control**: Flow Cyt: Live HAP1 wildtype cells. IHC-P: Human colon tissue.

**General notes**: CD24 expression can also be observed in the cytoplasm.

ab31622 binds to the non-glycosylated GPI anchor of the protein core of the cluster w4/CD24. It recognizes B cells from pre-B stage to mature-B stage, the majority of normal medullary granulocytic cells, peripheral blood polymorphonuclear cells, non-T, non-B acute lymphoblastic leukemias, some atypical or myeloid leukemias or B chronic lymphocytic leukemias and two-thirds of Epstein-Barr virus transformed cell lines.

Abcam is committed to meeting high standards of ethical manufacturing and has decided to discontinue this product by June 2019 as it has been generated by the ascites method. We are sorry for any inconvenience this may cause. We would recommend antibody ab202073 as a replacement.

**Properties**

**Form**: Liquid

**Storage instructions**: Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

**Storage buffer**: Constituents: PBS, 40% Glycerol

**Purity**: Protein G purified

**Purification notes**: Ammonium sulfate fraction and column chromatography.

**Primary antibody notes**: ab31622 binds to the non-glycosylated GPI anchor of the protein core of the cluster w4/CD24. It recognizes B cells from pre-B stage to mature-B stage, the majority of normal medullary granulocytic cells, peripheral blood polymorphonuclear cells, non-T, non-B acute lymphoblastic leukemias, some atypical or myeloid leukemias or B chronic lymphocytic leukemias and two-thirds of Epstein-Barr virus transformed cell lines.
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of Epstein-Barr virus transformed cell lines.

Clonality
Monoclonal

Clone number
ALB 9

Myeloma
NS1/1-Ag4-1

Isotype
IgG1

Light chain type
kappa

Applications

Our Abpromise guarantee covers the use of ab31622 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>Flow Cyt</td>
<td>Use a concentration of 10 µg/ml. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.</td>
<td></td>
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<tr>
<td>IHC-Fr</td>
<td>1/25 - 1/50.</td>
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<tr>
<td>IHC-P</td>
<td>Use at an assay dependent concentration.</td>
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Target

Function
Modulates B-cell activation responses. Signaling could be triggered by the binding of a lectin-like ligand to the CD24 carbohydrates, and transduced by the release of second messengers derived from the GPI-anchor. Promotes AG-dependent proliferation of B-cells, and prevents their terminal differentiation into antibody-forming cells.

Tissue specificity
B-cells. Expressed in a number of B-cell lines including P32/SH and Namalwa. Expressed in erythroleukemia cell and small cell lung carcinoma cell lines. Also expressed on the surface of T-cells.

Involvement in disease
Genetic variations in CD24 are associated with susceptibility to multiple sclerosis (MS) [MIM:126200]. A multifactorial, inflammatory, demyelinating disease of the central nervous system. Sclerotic lesions are characterized by perivascular infiltration of monocytes and lymphocytes and appear as indurated areas in pathologic specimens (sclerosis in plaques). The pathological mechanism is regarded as an autoimmune attack of the myelin sheath, mediated by both cellular and humoral immunity. Clinical manifestations include visual loss, extra-ocular movement disorders, paresthesias, loss of sensation, weakness, dysarthria, spasticity, ataxia and bladder dysfunction. Genetic and environmental factors influence susceptibility to the disease. Note=Polymorphisms in CD24 may act as a genetic modifier for susceptibility and progression of MS in some populations, perhaps by affecting the efficiency of CD24 expression on the cell surface.

Sequence similarities
Belongs to the CD24 family.
Post-translational modifications
Extensively O-glycosylated.

Cellular localization
Cell membrane.

Images

Overlay histogram showing HAP1 wildtype (green line) and HAP1-CD24 knockout cells (red line) stained with ab31622. Live HAP1 wildtype and HAP1-CD24 knockout cells were incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab31622, 10µg/0.5x10⁶ cells) for 30 min at 22°C. A mouse IgG1 isotype control antibody (ab170190) was used at the same concentration and conditions as the primary antibody (HAP1 wildtype - black line, HAP1-ITGB1 knockout - grey line). Unlabelled sample was also used as a control (this line is not shown for the purpose of simplicity). Acquisition of >5,000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter.

ab31622 staining CD24 in human colon tissue sections by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). Tissue was fixed with formaldehyde, then a heat mediated antigen retrieval step was performed using citrate buffer pH 6 (20 minutes). Samples were then incubated with the primary antibody at a 1/100 dilution for 16 minutes at 25°C. An undiluted HRP-conjugated goat anti-mouse/rabbit monoclonal was used as secondary antibody.

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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