

## Anti-CD19 Polyclonal Antibody

### Product Details

Ig Type:	IgG
Reactivity:	Human, Mouse (predicted: Rat, Pig, Cow, Horse, Guinea Pig)
Molecular Weight:	Theoretical: 59 kDa. Actual: 95 kDa.
Purification:	Protein A purified

### Applications

1. Tissue/cell: mouse fetal skin; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH6.0), Boiling bathing for 15 min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30 min; Blocking buffer (normal goat serum) at 37°C for 20 min; Incubation: Anti-CD19 Polyclonal Antibody, Unconjugated (TMAB-00340) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody and DAb staining.
2. Blank control: Raji (blue). Primary Antibody: Rabbit Anti-CD19 antibody (TMAB-00340), Dilution: 5 µg in 100 µL 1X PBS containing 0.5% BSA; Isotype Control Antibody: Rabbit IgG (orange), used under the same conditions. Secondary Antibody: Goat anti-rabbit IgG-Pe (white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.

#### Protocol

#### Verified Activity:

Primary antibody (TMAB-00340, 5 µg/1x10<sup>6</sup> cells) were incubated for 30 min on the ice, followed by 1 X PBS containing 0.5% BSA + 10% goat serum (15 min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/PE antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 30 min on ice.

3. Blank control (blue line): HL60 cells (blue).

Primary Antibody (green line): Rabbit Anti-CD19 antibody (TMAB-00340)

Dilution: 1 µg/10<sup>6</sup> cells;

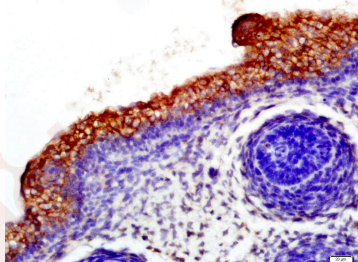
Isotype Control Antibody (orange line): Rabbit IgG.

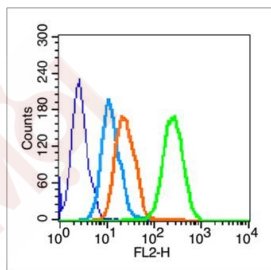
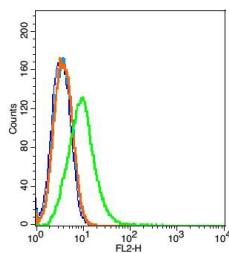
Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE

Dilution: 1 µg/test.

#### Protocol

The cells were fixed with 70% methanol (Overnight at 4°C). Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2% BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody used for 40 min at room temperature.





Application: FCM,IF,IHC-Fr,IHC-P

Recommended IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500; FCM: 1µg/Test

## Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

## Antigen Details

Immunogen: KLH conjugated synthetic peptide: human CD19

Antigen Species: Human

Gene ID: 930

Uniprot ID: P15391

Synonyms: CVID3;B4;CD19 molecule

Biology Area: CD,Human Lineage Negative,B Lymphocytic Lineage

## Research Background

This gene encodes a member of the immunoglobulin gene superfamily. Expression of this cell surface protein is restricted to B cell lymphocytes. This protein is a reliable marker for pre-B cells but its expression diminishes during terminal B cell differentiation in antibody secreting plasma cells. The protein has two N-terminal extracellular Ig-like domains separated by a non-Ig-like domain, a hydrophobic transmembrane domain, and a large C-terminal cytoplasmic domain. This protein forms a complex with several membrane proteins including complement receptor type 2 (CD21) and tetraspanin (CD81) and this complex reduces the threshold for antigen-initiated B cell activation. Activation of this B-cell antigen receptor complex activates the phosphatidylinositol 3-kinase signalling pathway and the subsequent release of intracellular stores of calcium ions. This protein is a target of chimeric antigen receptor (CAR) T-cells used in the treatment of lymphoblastic leukemia. Mutations in this gene are associated with the disease common variable immunodeficiency 3 (CVID3) which results in a failure of B-cell differentiation and impaired secretion of immunoglobulins. CVID3 is characterized by hypogammaglobulinemia, an inability to mount an antibody response to antigen, and recurrent bacterial infections. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2020]

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