SunLong Biotech Co.,LTD
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Rabbit Anti-CD19 antibody

SL0079R

Product Name	CD19
Chinese Name	CD19 抗体
Alias	CD19_HUMAN; B-lymphocyte antigen CD19; B-lymphocyte surface antigen B4; Differentiation antigen CD19; T-cell surface antigen Leu-12; CD_antigen: CD19; B-lymphocyte surface antigen B4; Leu 12; Leu12;
Research Area	Cell biology immunology Stem cells Cell Surface Molecule lymphocyte b-lymphocyte
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Mouse (predicted:Rat,Pig,Cow,Horse,GuineaPig)
Applications	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1μg/Test （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	59kDa
Detection molecular weight	95 kDa
Cellular localization	The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human CD19: 485-556/556 <Cytoplasmic>
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage Shipped at 4℃. Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed PubMed

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]

Product Detail

Function:
Assembles with the antigen receptor of B-lymphocytes in order to decrease the threshold for antigen receptor-dependent stimulation.

Subunit:
Forms a complex with CD21, CD81 and CD225 in the membrane of mature B-cells. Interacts with VAV. Interacts with GRB2 and SOS when phosphorylated on Tyr-348 and/or Tyr-378. Interacts with PLCG2 when phosphorylated on Tyr-409. Interacts with LYN.

Subcellular Location:
Membrane; Single-pass type I membrane protein.

Post-translational modifications:
Phosphorylated on serine and threonine upon DNA damage, probably by ATM or ATR. Phosphorylated on tyrosine following B-cell activation. Phosphorylated on tyrosine residues by LYN.

DISEASE:
Defects in CD19 are the cause of immunodeficiency common variable type 3 (CVID3)

[MIM:613493]; also called antibody deficiency due to CD19 defect. CVID3 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.

Similarity:
Contains 2 Ig-like C2-type (immunoglobulin-like) domains.

SWISS:
P15391

Gene ID:
930

Database links:

Entrez Gene: 930 Human

Entrez Gene: 12478 Mouse

Entrez Gene: 365367 Rat

Omim: 107265 Human

SwissProt: P15391 Human

SwissProt: P25918 Mouse

Unigene: 652262 Human

Unigene: 4360 Mouse

CD19 是一种质膜蛋白质，参与信号传导作用。表达与前 B 细胞和成熟的 BThe cell membrane 表面，与 B 细胞的活化调节和发育调节相关，在 T 细胞和正常粒细胞上无表达。此抗体可以特异性识别 CD19，主要用于标记正常 B 细胞及 Tumour 性 B 细胞。

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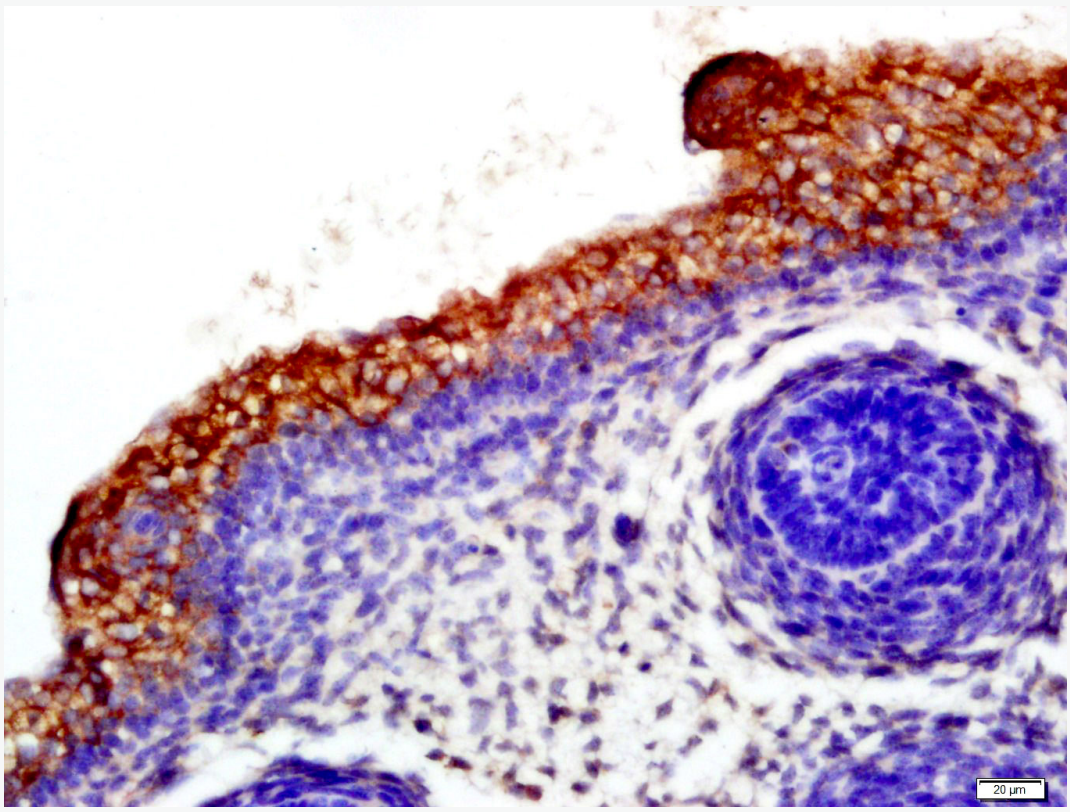
Product Picture



Tissue/cell: mouse fetal skin; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-CD19 Polyclonal Antibody, Unconjugated(SL0079R) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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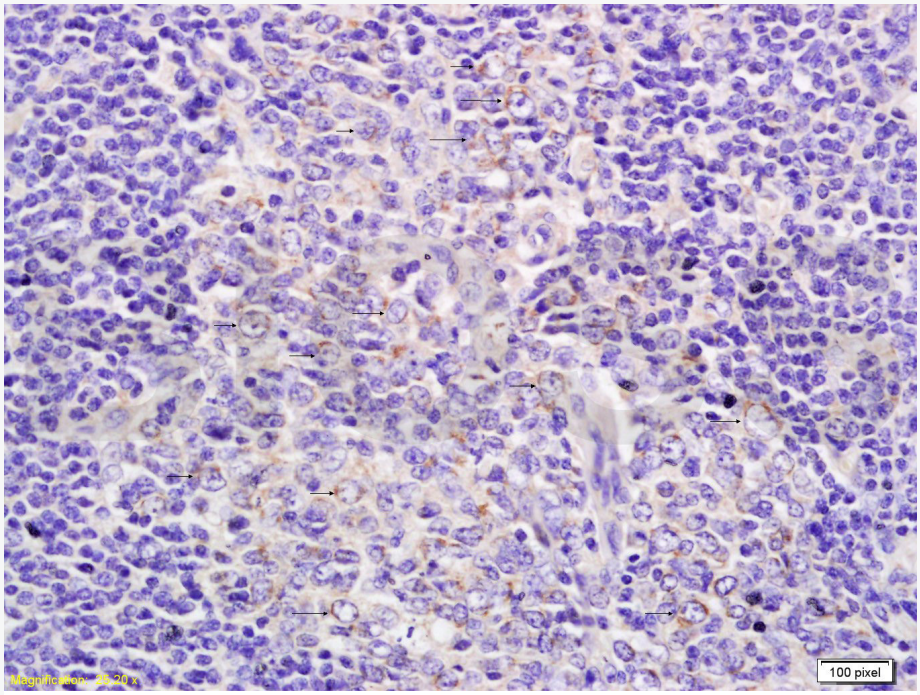

bs-0079R Anti-CD19

Formalin-fixed and paraffin-embedded rat tumor tissue labeled with Rabbit Anti-CD19 Polyclonal Antibody, Unconjugated(bs-0079R) at 1:200 followed by conjugation to the secondary antibody and DAB staining

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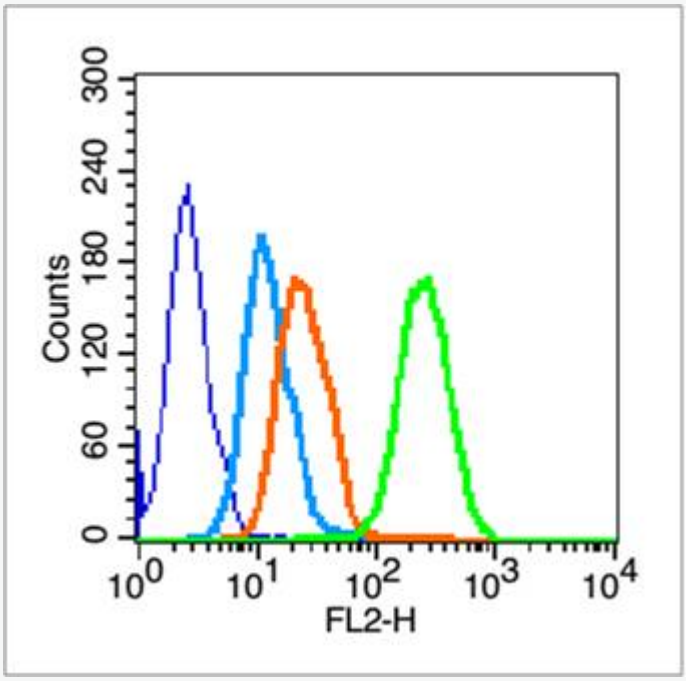


Blank control (blue line): HL60 cells (blue).

Primary Antibody (green line): Rabbit Anti-CD19 antibody (SL0079R)

Dilution: 1μg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

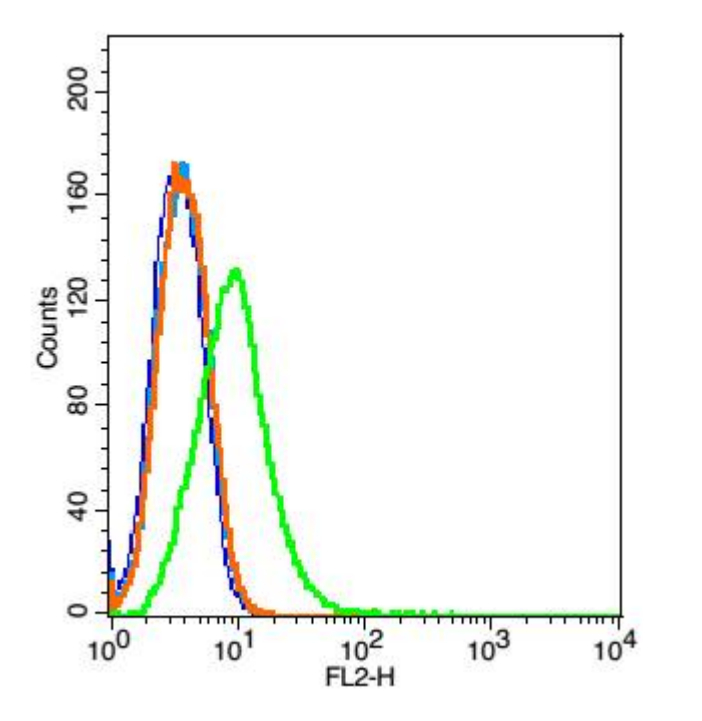
Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE

Dilution: 1μg /test.

Protocol

The cells were fixed with 70% methanol (Overnight at 4℃) . 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. Acquisition of 20,000

events was performed.



Blank control: Raji(blue).

Primary Antibody: Rabbit Anti-CD19 antibody(SL0079R), Dilution: 5μg 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

Primary antibody (SL0079R, 5μg /1x10^6 cells) were incubated for 30 min on the ice, followed by 1 X PBS containing 0.5% BSA + 1 0% 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. Acquisition of 20,000 events was performed.