CD19 Rabbit mAb

Catalog NO.: A23507 Recombinant

Basic Information

Observed MW
95kDa

Calculated MW
61kDa

Category
Monoclonal Antibodies

Applications
WB, IF-P, IHC-P, ELISA

Cross-Reactivity
Human

Conjugation
Unconjugated

Clone number
ARC51556

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.

Recommended Dilutions

WB	1:500 - 1:1000
IF-P	1:50 - 1:200
IHC-P	1:2000 - 1:10000

ELISA
Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.

Immunogen Information

Gene ID
930

Swiss Prot
P15391

Immunogen
Synthetic peptide. This information is considered to be commercially sensitive.

Synonyms
B4; CVID3; CD19

Contact

Product Information

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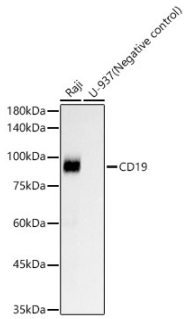
Source
Rabbit

Isotype
IgG

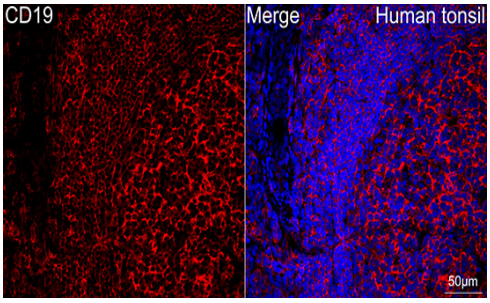
Purification
Affinity purification

Storage
Store at -20°C. Avoid freeze / thaw cycles.
Buffer: PBS containing 50% glycerol and 0.05% BSA, preserved with proclin300 or sodium azide (as specified on the Certificate of Analysis), pH 7.3.

Validation Data



Western blot analysis of various lysates, using CD19 Rabbit mAb (A23507) at 1:1000 dilution.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 3s.



Confocal imaging of paraffin-embedded Human tonsil tissue using CD19 Rabbit mAb (A23507, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Objective: 40x. Perform high pressure antigen retrieval with 0.01 M citrate buffer (pH 6.0) prior to IF staining.

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