Anti-CD19 Antibody [JF100-06]

ET1702-93

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, IF-Tissue, IHC-P, FC
Molecular Wt:	Predicted band size: 61 kDa
Clone number:	JF100-06

Description: B-lymphocyte antigen CD19, also known as CD19 molecule (Cluster of Differentiation 19), B-Lymphocyte Surface Antigen B4, T-Cell Surface Antigen Leu-12 and CVID3 is a transmembrane protein that in humans is encoded by the gene CD19. In humans, CD19 is expressed in all B lineage cells. Contrary to some early doubts, human plasma cells do express CD19, as confirmed by others. CD19 plays two major roles in human B cells: on the one hand, it acts as an adaptor protein to recruit cytoplasmic signaling proteins to the membrane; on the other, it works within the CD19/CD21 complex to decrease the threshold for B cell receptor signaling pathways. Due to its presence on all B cells, it is a biomarker for B lymphocyte development, lymphoma diagnosis and can be utilized as a target for leukemia immunotherapies.

Immunogen: Recombinant protein within Human CD19 aa 294-556 / 556.

Positive control: Raji cell lysate, 293T cell lysate, Ramos cell lysate, Daudi cell lysate, K-562 cell lysate, Raji, human spleen tissue, Daudi.

Subcellular location: Membrane.

Database links: SwissProt: P15391 Human

Recommended Dilutions:

WB	1:1,000-1:2,000
IF-Cell	1:50
IHC-P	1:1,000
IF-Tissue	1:200
FC	1:1,000

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

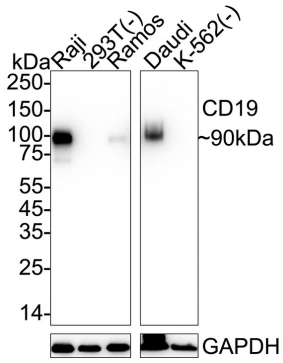

Fig1: Western blot analysis of CD19 on different lysates with Rabbit anti-CD19 antibody (ET1702-93) at 1/1,000 dilution.

Lane 1: Raji cell lysate
Lane 2: 293T cell lysate (negative)
Lane 3: Ramos cell lysate
Lane 4: Daudi cell lysate
Lane 5: K-562 cell lysate (negative)

Lysates/proteins at 20 µg/Lane.

Predicted band size: 61 kDa
Observed band size: 90 kDa

Exposure time: 6 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1702-93) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

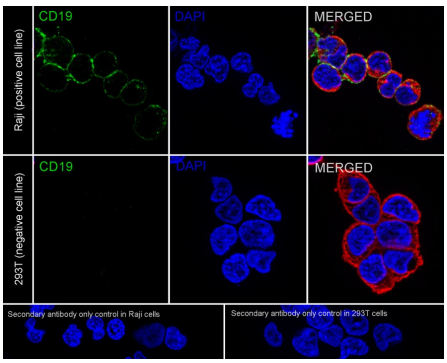

Fig2: Immunocytochemistry analysis of Raji (positive) and 293T (negative) labeling CD19 with Rabbit anti-CD19 antibody (ET1702-93) at 1/50 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-CD19 antibody (ET1702-93) at 1/50 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (HA601187, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

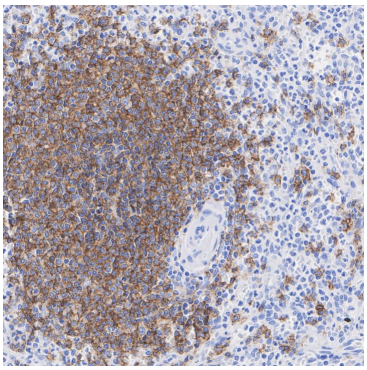

Fig3: Immunohistochemical analysis of paraffin-embedded human spleen tissue with Rabbit anti-CD19 antibody (ET1702-93) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1702-93) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

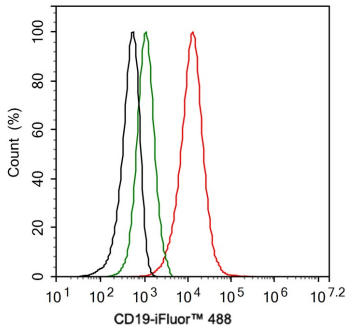

Fig4: Flow cytometric analysis of Daudi cells labeling CD19.

Cells were fixed and permeabilized. Then stained with the primary antibody (ET1702-93, 1ug/ml) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

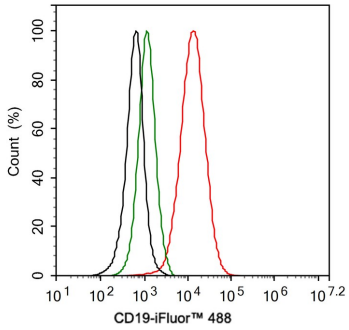

Fig5: Flow cytometric analysis of Raji cells labeling CD19.

Cells were fixed and permeabilized. Then stained with the primary antibody (ET1702-93, 1ug/ml) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

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

Background References

1. Walls A et al. Characterization of B-Cells in tonsils of patients diagnosed with pediatric autoimmune neuropsychiatric disorder associated streptococcus. Int J Pediatr Otorhinolaryngol 80:49-52 (2016).
2. Shi H et al. Long non-coding RNA expression profile in minor salivary gland of primary Sj gren's syndrome. Arthritis Res Ther 18:109 (2016).