Anti-CD79a Antibody [JE43-50]

ET7109-33

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Tissue, IHC-P, FC
Molecular Wt:	Predicted band size: 25 kDa
Clone number:	JE43-50

Description: Cluster of differentiation CD79A also known as B-cell antigen receptor complex-associated protein alpha chain and MB-1 membrane glycoprotein, is a protein that in humans is encoded by the CD79A gene. The CD79a protein together with the related CD79b protein, forms a dimer associated with membrane-bound immunoglobulin in B-cells, thus forming the B-cell antigen receptor (BCR). This occurs in a similar manner to the association of CD3 with the T-cell receptor, and enables the cell to respond to the presence of antigens on its surface. It is associated with agammaglobulinemia-3. CD79a plays multiple and diverse roles in B cell development and function. The CD79a/b heterodimer associates non-covalently with the immunoglobulin heavy chain through its transmembrane region, thus forming the BCR along with the immunoglobulin light chain and the pre-BCR when associated with the surrogate light chain in developing B cells. Association of the CD79a/b heterodimer with the immunoglobulin heavy chain is required for surface expression of the BCR and BCR induced calcium flux and protein tyrosine phosphorylation. Genetic deletion of the transmembrane exon of CD79A results in loss of CD79a protein and a complete block of B cell development at the pro to pre B cell transition. Similarly, humans with homozygous splice variants in CD79A predicted to result in loss of the transmembrane region and a truncated or absent protein display agammaglobulinemia and no peripheral B cells.

Immunogen: Synthetic peptide within Human CD79a aa 50-100 / 226.

Positive control: Daudi cell lysate, Raji cell lysate, human tonsil tissue, human appendix tissue, human spleen tissue, human lymph nodes tissue, Daudi.

Subcellular location: Cell membrane.

Database links: SwissProt: P11912 Human

Recommended Dilutions:

WB	1:500-1:1,000
IHC-P	1:100-1:400
IF-Tissue	1:50-1:100
FC	1:50-1:100

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

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

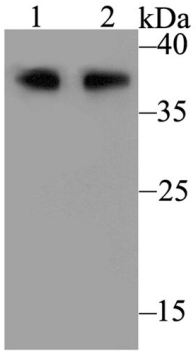

Fig1: Western blot analysis of CD79a on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody was used at a 1:500 dilution in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:5,000 dilution was used for 1 hour at room temperature.
Positive control:
Lane 1: Daudi cell lysate
Lane 2: Raji cell lysate

Predicted band size: 25 kDa
Observed band size: 38 kDa

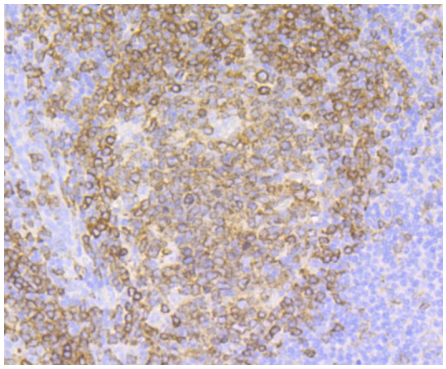

Fig2: Immunohistochemical analysis of paraffin-embedded human tonsil tissue with Rabbit anti-CD79a antibody (ET7109-33) at 1/100 dilution.

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 (ET7109-33) at 1/100 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.

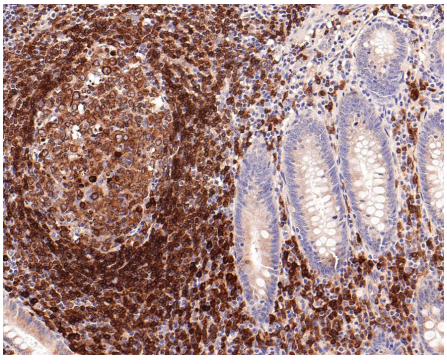

Fig3: Immunohistochemical analysis of paraffin-embedded human appendix tissue with Rabbit anti-CD79a antibody (ET7109-33) at 1/400 dilution.

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 (ET7109-33) at 1/400 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.

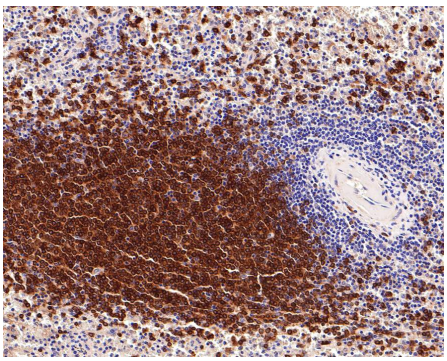

Fig4: Immunohistochemical analysis of paraffin-embedded human spleen tissue with Rabbit anti-CD79a antibody (ET7109-33) at 1/400 dilution.

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 (ET7109-33) at 1/400 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.

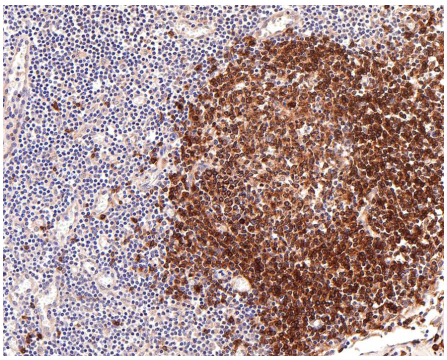

Fig5: Immunohistochemical analysis of paraffin-embedded human lymph nodes tissue with Rabbit anti-CD79a antibody (ET7109-33) at 1/400 dilution.

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 (ET7109-33) at 1/400 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.

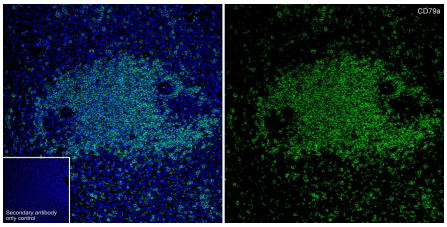

Fig6: Application: IF-Tissue

Species: Human

Site: spleen

Sample: Paraffin-embedded section

Antibody concentration: 1/200

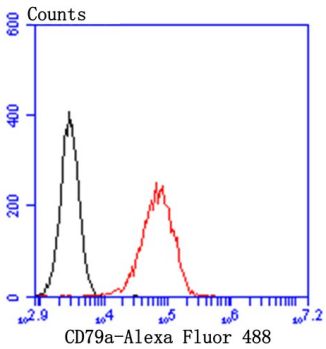

Fig7: Flow cytometric analysis of CD79a was done on Daudi cells. The cells were fixed, permeabilized and stained with CD79a antibody at 1/100 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). After incubation of the primary antibody on room temperature for an hour, the cells was stained with a Alexa Fluor™ 488-conjugated goat anti-rabbit IgG Secondary antibody at 1/500 dilution for 30 minutes.

Background References

1. Naylor TL et al. Protein kinase C inhibitor sotrastaurin selectively inhibits the growth of CD79 mutant diffuse large B-cell lymphomas. Cancer Res 71(7):2643-53 (2011).
2. Hoeller S et al. BOB.1, CD79a and cyclin E are the most appropriate markers to discriminate classical Hodgkin's lymphoma from primary mediastinal large B-cell lymphoma. Histopathology 56(2):217-28 (2010).