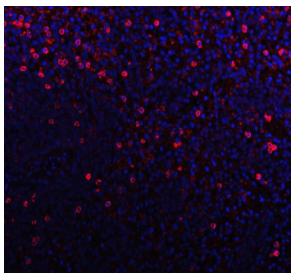
CD79b Polyclonal Antibody / B29 Rabbit Polyclonal Antibody (R31586)

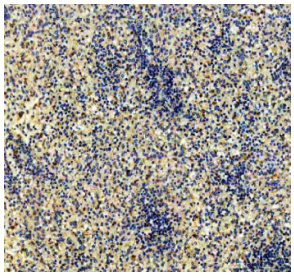
Catalog No.	Formulation	Size
R31586	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

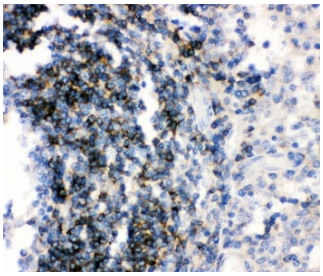
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P40259
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 0.5-1ug/ml Immunofluorescence (FFPE): 5ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This CD79b Polyclonal Antibody / B29 Rabbit Polyclonal Antibody is available for research use only.



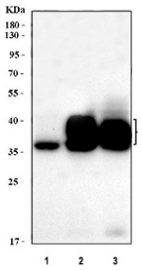
CD79b Polyclonal Antibody IF Staining of Human Tonsil Tissue. Immunofluorescence analysis of FFPE human tonsil tissue using B29 Rabbit Polyclonal Antibody. CD79b-associated fluorescence is shown in red, while DAPI nuclear counterstaining is shown in blue. Red staining is observed in a subset of lymphoid cells, consistent with the expression of CD79b in B-cell populations. Heat-induced epitope retrieval was performed by steaming tissue sections in EDTA buffer at pH 8 for 20 minutes.



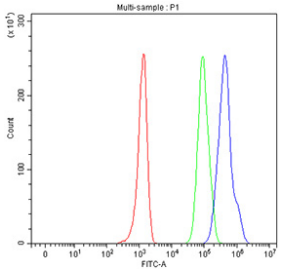
CD79b Polyclonal Antibody IHC Staining of Human Spleen Tissue. Immunohistochemical analysis of FFPE human spleen tissue using B29 Rabbit Polyclonal Antibody. Brown DAB immunoreactivity is observed among lymphoid cells within the spleen, consistent with the expression of CD79b in B-cell populations. Heat-induced epitope retrieval was performed by boiling tissue sections in EDTA buffer at pH 8 for 20 minutes, followed by cooling before staining.



CD79b Polyclonal Antibody IHC Staining of Human Tonsil Tissue. Immunohistochemical analysis of FFPE human tonsil tissue using B29 Rabbit Polyclonal Antibody. Brown DAB staining is concentrated in a subset of lymphoid cells, consistent with the distribution of CD79b-expressing B-cell populations in tonsillar tissue. Heat-induced epitope retrieval was performed by boiling tissue sections in citrate buffer at pH 6 for 20 minutes, followed by cooling before staining.



CD79b Polyclonal Antibody WB Analysis of Human Raji, Daudi and Ramos Cell Lysates. Western blot analysis of human Raji (lane 1), Daudi (lane 2), and Ramos (lane 3) cell lysates using B29 Rabbit Polyclonal Antibody. Immunoreactive bands are detected at approximately 35-40 kDa, consistent with the expected migration of glycosylated CD79b. Although the unglycosylated protein has a calculated molecular weight of approximately 26 kDa, N-linked glycosylation contributes to its higher apparent molecular weight.



CD79b Polyclonal Antibody FACS Staining of Human Raji Cells. Flow cytometry analysis of fixed human Raji cells using B29 Rabbit Polyclonal Antibody at 1 ug per million cells following blocking with goat serum. The blue histogram represents CD79b antibody-stained cells, the green histogram represents the isotype control, and the red histogram represents unstained cells. A rightward fluorescence shift is observed in the antibody-stained population relative to both controls, demonstrating CD79b detection by flow cytometry.

Description

CD79b Polyclonal Antibody / B29 Rabbit Polyclonal Antibody targets CD79b, a transmembrane glycoprotein encoded by the CD79B gene. Also known as B29 or Ig-beta, CD79b is an essential signaling component of the B-cell antigen receptor (BCR) complex. It associates with CD79a (Ig-alpha) to form a heterodimer that interacts with membrane-bound immunoglobulins, enabling antigen recognition and intracellular signal transmission. The CD79a/CD79b complex is required for efficient assembly and surface expression of the BCR and plays a central role in normal B-cell development, activation, and survival.

CD79b contains an extracellular immunoglobulin-like domain, a transmembrane segment, and a cytoplasmic signaling region. Its cytoplasmic tail includes an immunoreceptor tyrosine-based activation motif (ITAM), which undergoes phosphorylation following antigen engagement. This modification creates docking sites for signaling proteins, including spleen tyrosine kinase (SYK), initiating downstream pathways involving phospholipase C gamma 2 (PLCG2), phosphoinositide 3-kinase (PI3K), and mitogen-activated protein kinases. These signaling cascades regulate calcium mobilization, transcriptional responses, cytoskeletal changes, and processes associated with B-cell proliferation and differentiation.

Beyond antigen-induced activation, CD79b contributes to tonic BCR signaling, which helps maintain the survival of mature B cells. The CD79a/CD79b heterodimer also participates in receptor internalization and antigen processing, linking extracellular antigen recognition with intracellular trafficking and immune responses. Regulation of CD79b phosphorylation, receptor association, and endocytosis influences the strength and duration of BCR signaling. Alterations in these processes can disrupt normal B-cell function and contribute to immune dysregulation.

CD79b is expressed in numerous mature B-cell malignancies, including diffuse large B-cell lymphoma and other B-cell lymphoproliferative disorders. Mutations affecting the CD79B signaling region occur in subsets of activated B-cell-like diffuse large B-cell lymphoma and can promote abnormal BCR signaling. CD79b has also become an important target in

antibody-based cancer therapy because of its expression on malignant B cells and its ability to undergo receptor-mediated internalization. CD79b Polyclonal Antibody supports investigations of B-cell receptor signaling, lymphocyte differentiation, immune regulation, and the molecular mechanisms associated with B-cell malignancies.

For an alternative monoclonal antibody targeting this B-cell receptor signaling protein, see our CD79b Antibody IGB/3170R, validated for western blot and immunohistochemistry.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the CD79b Polyclonal Antibody / B29 Rabbit Polyclonal Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Human partial recombinant protein (AA 29-229) was used as the immunogen for this CD79b antibody.

Storage

After reconstitution, the CD79b antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

B29 antibody, B-cell antigen receptor complex-associated protein beta chain antibody, B-cell receptor-associated protein beta chain antibody, Immunoglobulin beta antibody, Ig-beta antibody, Ig beta antibody, CD79B protein antibody, B-cell antigen receptor CD79b antibody, B-cell receptor signaling protein CD79b antibody

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