

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CD79B in direct ELISAs and Western blots. In direct ELISAs, approximately 55% of cross-reactivity with human CD79B is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant mouse CD79B Met29-Asp158 Accession # P15530
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

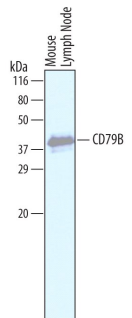
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
Immunocytochemistry	5-15 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

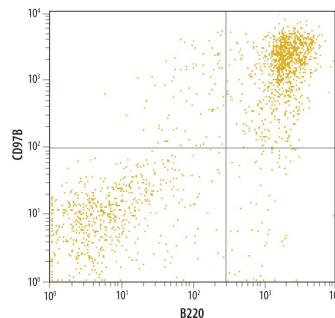
DATA

Western Blot



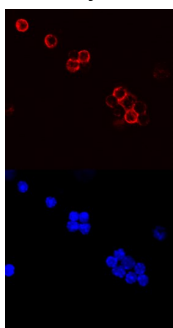
Detection of Mouse CD79B by Western Blot. Western blot shows lysates of mouse lymph node tissue. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Mouse CD79B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6814) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for CD79B at approximately 38 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Flow Cytometry



Detection of CD79B in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes were stained with Sheep Anti-Mouse CD79B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6814) followed by Allophycocyanin-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # F0127) and Rat Anti-Mouse B220/CD45R PE-conjugated Monoclonal Antibody (Catalog # FAB1217P). Quadrant markers were set based on control antibody staining (Catalog # 5-001-A).

Immunocytochemistry



CD79B in Mouse Splenocytes. CD79B was detected in immersion fixed mouse splenocytes using Sheep Anti-Mouse CD79B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6814) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red, upper panel; Catalog # NL010) and counterstained with DAPI (blue, lower panel). Specific staining was localized to cell surfaces and cytoplasm. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CD79B (also known as B29, Ig β and B cell antigen receptor complex-associated protein β -chain) is a 37-39 kDa member of the Ig-Superfamily. It is expressed on B cells, and forms a covalent heterodimer with CD79a. This complex interacts noncovalently with membrane Ig, forming the B cell antigen receptor. Within this complex, membrane Ig detects antigen while CD79a:b initiates signaling. CD79B is also required for formation of pre-B cells during B cell development. Mature mouse CD79B is a 203 amino acid (aa) type I transmembrane glycoprotein (aa 26-228). It contains an extracellular region with one V-type Ig-like domain (aa 41-132) and an ITAM-containing cytoplasmic domain (aa 181-228). CD79B may migrate as two bands in SDS-PAGE. One defines the standard 37 kDa form, while a second represents one of two possible isoforms, the first of which is an underglycosylated full-length CD79B, and the second of which is an alternative splice form that likely lacks the C-terminal 32 amino acids. Mouse CD79a and CD79B share only 24% aa identity. Over aa 29-158, mouse CD79B shares 54% and 78% aa identity with human and rat CD79B, respectively.