

CD79B (B-4): sc-373808

BACKGROUND

CD79 (also designated Ig α /Ig β) is a heterodimer composed of α chains, designated CD79A or MB-1, and β chains, designated CD79B or B29. The B cell antigen receptor complex (BCR) is formed by the association of CD79 with a membrane immunoglobulin, such as IgM or IgD. The membrane immunoglobulins IgM and IgD achieve surface expression and antigen presentation function in response to CD79 association. The cytoplasmic tails of both CD79A and CD79B contain an ITAM (immuno-receptor tyrosine-based activation) motif, which acts to initiate the BCR signaling reactions by binding to and activating tyrosine kinases.

REFERENCES

1. Poppema, S., et al. 1987. Monoclonal antibodies (MT1, MT2, MB1, MB2, MB3) reactive with leukocyte subsets in paraffin-embedded tissue sections. *Am. J. Pathol.* 127: 418-429.
2. Mason, D.Y., et al. 1991. The IgM-associated protein MB-1 as a marker of normal and neoplastic B cells. *J. Immunol.* 147: 2474-2482.
3. Van Noesel, C.J., et al. 1991. The membrane IgM-associated heterodimer on human B cells is a newly defined B cell antigen that contains the protein product of the MB-1 gene. *J. Immunol.* 146: 3881-3888.
4. Ha, H.J., et al. 1992. Molecular cloning and expression pattern of a human gene homologous to the murine MB-1 gene. *J. Immunol.* 148: 1526-1531.
5. Mason, D.Y., et al. 1992. The B29 and MB-1 polypeptides are differentially expressed during human B cell differentiation. *Eur. J. Immunol.* 22: 2753-2756.
6. Jones, M., et al. 1993. Detection of T and B cells in many animal species using cross-reactive anti-peptide antibodies. *J. Immunol.* 150: 5429-5435.
7. Wood, W.J., et al. 1993. Isolation and chromosomal mapping of the human immunoglobulin-associated B29 gene (IGB). *Genomics* 16: 187-192.
8. Mason, D.Y., et al. 1995. CD79a: a novel marker for B cell neoplasms in routinely processed tissue samples. *Blood* 86: 1453-1459.

CHROMOSOMAL LOCATION

Genetic locus: CD79B (human) mapping to 17q23.3; Cd79b (mouse) mapping to 11 E1.

SOURCE

CD79B (B-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 201-229 at the C-terminus of CD79B of human origin.

PRODUCT

Each vial contains 200 μ g IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-373808 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

CD79B (B-4) is recommended for detection of CD79B of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CD79B (B-4) is also recommended for detection of CD79B in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for CD79B siRNA (h): sc-35027, CD79B siRNA (m): sc-42807, CD79B shRNA Plasmid (h): sc-35027-SH, CD79B shRNA Plasmid (m): sc-42807-SH, CD79B shRNA (h) Lentiviral Particles: sc-35027-V and CD79B shRNA (m) Lentiviral Particles: sc-42807-V.

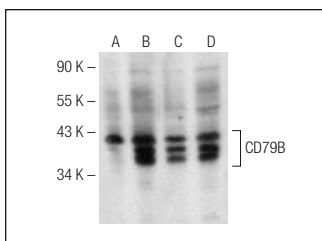
Molecular Weight of CD79B: 39 kDa.

Positive Controls: Raji whole cell lysate, Ramos cell lysate: sc-2216 or NAMALWA cell lysate: sc-2234.

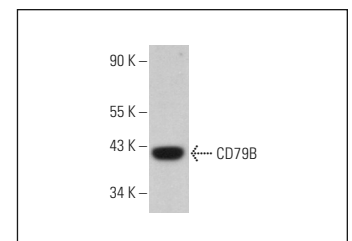
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CD79B (B-4): sc-373808. Western blot analysis of CD79B expression in Ramos (A), Raji (B), NAMALWA (C) and HL-60 (D) whole cell lysates.



CD79B (B-4): sc-373808. Western blot analysis of CD79B expression in GA-10 whole cell lysate.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.