

CD79B (G-7): sc-166675

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 immuno-globulins 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

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2. 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.
3. 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.
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., Jr., 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.
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CHROMOSOMAL LOCATION

Genetic locus: CD79B (human) mapping to 17q23.3.

SOURCE

CD79B (G-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 21-51 near the N-terminus of CD79B of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} 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-166675 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

CD79B (G-7) is recommended for detection of CD79B of 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).

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

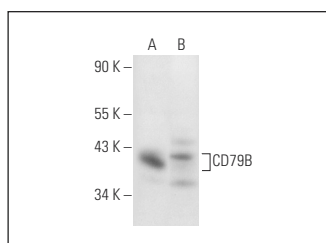
Molecular Weight of CD79B: 39 kDa.

Positive Controls: Ramos cell lysate: sc-2216, NAMALWA cell lysate: sc-2234 or Raji whole cell lysate: sc-364236.

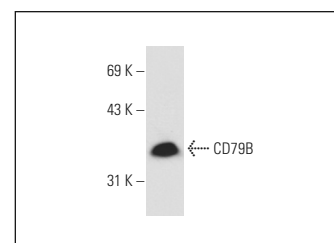
RECOMMENDED SUPPORT REAGENTS

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 A/G PLUS-Agarose: sc-2003 (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 (G-7): sc-166675. Western blot analysis of CD79B expression in Ramos (A) and NAMALWA (B) whole cell lysates.



CD79B (G-7): sc-166675. Western blot analysis of CD79B expression in Raji 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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.