

CD79A (V-20): sc-8503

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. 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.
9. Macardle, P.J., et al. 1997. The antigen receptor complex on cord B lymphocytes. *Immunology* 90: 376-382.

CHROMOSOMAL LOCATION

Genetic locus: CD79A (human) mapping to 19q13.2; Cd79a (mouse) mapping to 7.5.5 cM.

SOURCE

CD79A (V-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CD79A of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-8503 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CD79A (V-20) is recommended for detection of CD79A of mouse and rat origin by Western Blotting (starting dilution 1:200, 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 CD79A siRNA (m): sc-35026, CD79A shRNA Plasmid (m): sc-35026-SH and CD79A shRNA (m) Lentiviral Particles: sc-35026-V.

Molecular Weight of CD79A: 44 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Kumanogoh, A., et al. 2005. Requirement for CD100-CD72 interactions in fine-tuning of B-cell antigen receptor signaling and homeostatic maintenance of the B-cell compartment. *Int. Immunol.* 17: 1277-1282.

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 or our catalog for detailed protocols and support products.


 MONOS
Satisfaction
Guaranteed

Try **CD79A (HM47): sc-20064** or **CD79A (JCB117): sc-53209**, our highly recommended monoclonal alternatives to CD79A (V-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **CD79A (HM47): sc-20064**.