

# CD79A (ZL7-4): sc-13529

## BACKGROUND

CD79 (also designated Ig  $\alpha$ /Ig  $\beta$ ) is a heterodimer composed of  $\alpha$  chains, designated CD79A or MB-1, and  $\beta$  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.

## SOURCE

CD79A (ZL7-4) is a mouse monoclonal antibody raised against a Daudi IgM complex.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD79A (ZL7-4) is available conjugated to either phycoerythrin (sc-13529 PE) or fluorescein (sc-13529 FITC), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM.

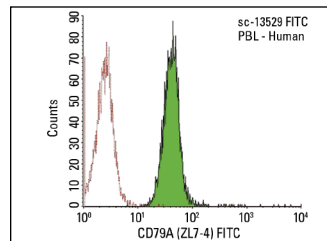
## APPLICATIONS

CD79A (ZL7-4) is recommended for detection of CD79A of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for CD79A siRNA (h): sc-35025, CD79A shRNA Plasmid (h): sc-35025-SH and CD79A shRNA (h) Lentiviral Particles: sc-35025-V.

Molecular Weight of CD79A: 44 kDa.

## DATA



CD79A (ZL7-4) FITC: sc-13529 FITC. FCM analysis of human peripheral blood leukocytes. Black line histogram represents the isotype control, normal mouse IgG<sub>1</sub>-FITC: sc-2855.

## SELECT PRODUCT CITATIONS

1. Mkaddem, S.B., et al. 2017. Lyn and Fyn function as molecular switches that control immunoreceptors to direct homeostasis or inflammation. *Nat. Commun.* 8: 246.

## 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](http://www.scbt.com) for detailed protocols and support products.