

CD23 (C-19): sc-7021

BACKGROUND

The human leukocyte differentiation antigen CD23 (FCE2) is a type II integral membrane glycoprotein that is expressed on mature B cells, monocytes, eosinophils, platelets and dendritic cells. In mouse, CD23 is found only on mature B cells. CD23 is a low affinity IgE receptor that mediates IgE-dependent cytotoxicity and phagocytosis by macrophages and eosinophils. CD23 associates as an oligomer where cooperative binding of at least two lectin domains is required for high affinity IgE binding to CD23. It may play a role in antigen presentation by B cells by interacting with CD40. CD23 has been shown to be associated with the Fyn tyrosine kinase. The truncated molecule can be secreted, then function as a potent mitogenic growth factor. ADAM8, ADAM15 and MDC-L catalyze ectodomain shedding of CD23. Intestinal cells coexpress CD23a and CD23b, and the two splice forms show different localizations in polarized cells.

REFERENCES

1. Yokota, A., et al. 1988. Two species of human Fc ϵ receptor II (Fc ϵ RII/CD23): tissue-specific and IL-4-specific regulation of gene expression. *Cell* 55: 611-618.
2. Gordon, J., et al. 1991. Inhibition of interleukin-4 promoted CD23 production in human B lymphocytes by transforming growth factor β , interferons or anti-CD19 antibody is overridden on engaging CD40. *Eur. J. Immunol.* 21: 1917-1922.
3. Sugie, K., et al. 1991. Fyn tyrosine kinase associated with Fc ϵ RII/CD23: possible multiple roles in lymphocyte activation. *Proc. Natl. Acad. Sci. USA* 88: 9132-9135.
4. Maekawa, N., et al. 1992. Induction of Fc ϵ RII/CD23 on PHA-activated human peripheral blood T lymphocytes and association of Fyn tyrosine kinase with Fc ϵ RII/CD23. *Int. J. Tissue React.* 14: 121-130.
5. Sutton, B., et al. 1993. The human IgE network. *Nature* 366: 421-428.
6. Yu, P., et al. 1994. Negative feedback regulation of IgE synthesis by murine CD23. *Nature* 369: 753-756.

CHROMOSOMAL LOCATION

Genetic locus: FCER2 (human) mapping to 19p13.2.

SOURCE

CD23 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CD23 of human origin.

PRODUCT

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

CD23 (C-19) is available conjugated fluorescein (sc-7021 FITC, 200 μ g/ml), for IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-7021 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CD23 (C-19) is recommended for detection of CD23 of human 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

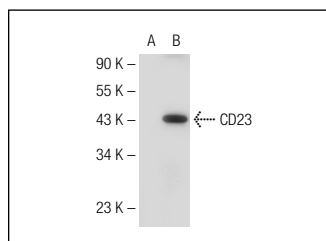
Suitable for use as control antibody for CD23 siRNA (h): sc-29976, CD23 shRNA Plasmid (h): sc-29976-SH and CD23 shRNA (h) Lentiviral Particles: sc-29976-V.

Molecular Weight of soluble CD23: 37 kDa.

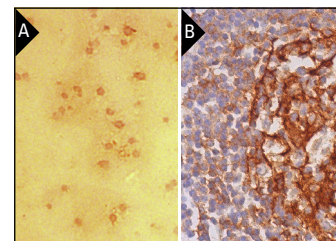
Molecular Weight of CD23 membrane: 45 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, Daudi cell lysate: sc-2415 or CD23 (h3): 293T Lysate: sc-174643.

DATA



CD23 (C-19): sc-7021. Western blot analysis of CD23 expression in non-transfected: sc-117752 (A) and human CD23 transfected: sc-174643 (B) 293T whole cell lysates.



CD23 (C-19): sc-7021. Immunoperoxidase staining of formalin-fixed human platelet smear showing membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing membrane and cytoplasmic staining of cells in germinal centers and cells in non-germinal centers (B).

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 **CD23 (H-4): sc-271900** or **CD23 (HD50): sc-18910**, our highly recommended monoclonal alternatives to CD23 (C-19).