CD23 (h3): 293T Lysate: sc-174643



The Power to Question

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., Kikutani, H., Tanaka, T., Sato, R., Barsumian, E.L., Suemura, M. and Kishimoto, T. 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., Katira, A., Strain, A.J. and Gillis, S. 1991. Inhibition of inter-leukin-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.
- Sugie, K., Kawakami, T., Maeda, Y., Kawabe, T., Uchida, A. and Yodoi, J. 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., Kawabe, T., Sugie, K., Kawakami, T., Maeda, Y., Uchida, A. and Yodoi, J. 1992. Induction of Fc ϵ RII/CD23 on PHA-activated human peripheral blood T lymphocytes and association of Fyn tyosine kinase with Fc ϵ RII/CD23. Int. J. Tissue React. 14: 121-130.
- 5. Sutton, B.J. and Gould, H.G. 1993. The human IgE network. Nature 366: 421-428.
- Yu, P., Kosco-Vilbois, M., Richards, M., Kohler, G. and Lamers, M.C. 1994.
 Negative feedback regulation of IgE synthesis by murine CD23. Nature 369: 753-756.
- Yasui, T., Fujiwara, H., Kamanaka, M., Kawabe, T., Yoshida, N., Kishimoto, T. and Kikutani, H. 1996. The roles of CD42 and CD23 in IgE regulation. Adv. Exp. Med. Biol. 409: 349-354.
- 8. Cho, S.W., Kilmon, M.A., Studer, E.J., van der Putten, H. and Conrad, D.H. 1997. B cell activation and Ig, especially IgE, production is inhibited by high CD23 levels *in vivo* and *in vitro*. Cell. Immunol. 10: 36-46.

CHROMOSOMAL LOCATION

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

PRODUCT

CD23 (h3): 293T Lysate represents a lysate of human CD23 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

CD23 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive CD23 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**