CD32 (h): 293T Lysate: sc-112622



The Power to Question

BACKGROUND

CD32 (also designated Fc γ RII) is a 40 kDa low affinity receptor for the Fc fragment of aggregated IgG. CD32 is responsible for the clearance of immunocomplexes by macrophages and also plays an important role in the regulation of antibody production by B cells. IgG can noncooperatively bind either one or two highly glycosylated CD32 molecules, and this binding delivers a negative signal for B cells. CD32 exists as several isoforms that are produced by alternative splicing of three distinct genes, A, B and C. These isoforms are designated Fc γ RIIA, Fc γ RIIB1, Fc γ RIIB3 and Fc γ RIIC. All isoforms are present on monocytes, placental trophoblasts and endothelial cells. In addition, the Fc γ RIIB forms are present on B lymphocytes and the Fc γ RIIA and Fc γ RIIC forms are found on neutrophils.

REFERENCES

- Bijsterbosch, M.K. and Klaus, G.G. 1985. Crosslinking of surface immunoglobulin and Fc receptors on B lymphocytes inhibits stimulation of inositol phospholipid breakdown via the antigen receptors. J. Exp. Med. 162: 1825-1836.
- 2. Huizinga, T.W.J., Kerst, M., Nuyens, J.H., Vlug, A., von dem Borne, A.E., Roos, D. and Tetteroo, P.A. 1989. Binding characteristics of dimeric IgG subclass complexes to human neutrophils. J. Immunol. 142: 2365-2369.
- Stuart, S.G., Simister, N.E., Clarkson, S.B., Kacinski, B.M., Shapiro, M. and Mellman, I. 1989. Human IgG Fc receptor (hFcRII; CD32) exists as multiple isoforms in macrophages, lymphocytes and IgG-transporting placental epithelium. EMBO J. 8: 3657-3666.
- 4. Raveth, J.V. and Kinet, J.P. 1991. Fc Receptors. Annu. Rev. Immunol. 9: 457-492.
- 5. Barclay, A.N., Beyers, A.D., Birkeland, M.L., Brown, S.J., Somoza, C. and Williams, A.F. 1993. The Leukocyte Antigen Facts Book. London: Academic Press, 170-172.
- 6. Sondermann, P., Jacob, U., Kutscher, C. and Frey, J. 1999. Characterization and crystallization of soluble human Fc γ RII (CD32) isoforms produced in insect cells. Biochemistry 38: 8469-8477.

CHROMOSOMAL LOCATION

Genetic locus: FCGR2B (human) mapping to 1q23.3.

PRODUCT

CD32 (h): 293T Lysate represents a lysate of human CD32 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

PROTOCOLS

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

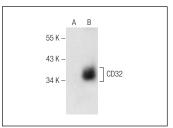
APPLICATIONS

CD32 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive CD32 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.

CD32-B (F-4): sc-365864 is recommended as a positive control antibody for Western Blot analysis of enhanced human CD32 expression in CD32 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



CD32-B (F-4): sc-365864. Western blot analysis of CD32 expression in non-transfected: sc-117752 (A) and human CD32 transfected: sc-112622 (B) 293T whole cell beates

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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