

CD32 (KB61): sc-20054

BACKGROUND

CD32 (also designated Fc γ RI) is a 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 RII B1, Fc γ RII B3, and Fc γ RII C. All isoforms are present on monocytes, placental trophoblasts and endothelial cells. In addition, the Fc γ RII B forms are present on B lymphocytes, and the Fc γ RII A and Fc γ RII C forms are found on neutrophils.

REFERENCES

1. 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., et al. 1989. Binding characteristics of dimeric IgG subclass complexes to human neutrophils. *J. Immunol.* 142: 2365-2369.
3. Stuart, S.G., et al. 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., et al. 1993. *The Leukocyte Antigen Facts Book*. London: Academic Press, 170-172.

CHROMOSOMAL LOCATION

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

SOURCE

CD32 (KB61) is a mouse monoclonal antibody raised against hairy cell leukemia.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD32 (KB61) is available conjugated to either phycoerythrin (sc-20054 PE) or fluorescein (sc-20054 FITC), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

CD32 (KB61) is recommended for detection of CD32 of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1 x 10⁶ cells).

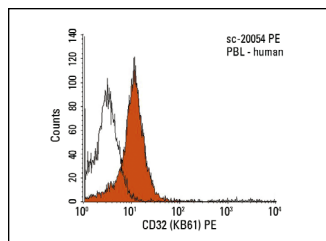
Suitable for use as control antibody for CD32 siRNA (h): sc-42772, CD32 shRNA Plasmid (h): sc-42772-SH and CD32 shRNA (h) Lentiviral Particles: sc-42772-V.

Molecular Weight of CD32: 40 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA




CD32 (KB61) PE: sc-20054 PE. FCM analysis of human peripheral blood leukocytes. Black line histogram represents the isotype control, normal mouse IgG₁-PE: sc-2866.

SELECT PRODUCT CITATIONS

1. Matsumoto, K., et al. 2004. Extremely rapid and intense induction of apoptosis in human eosinophils by anti-CD30 antibody treatment *in vitro*. *J. Immunol.* 172: 2186-2193.
2. Lisi, S., et al. 2007. Fc γ receptors mediate internalization of anti-Ro and anti-La autoantibodies from Sjogren's syndrome and apoptosis in human salivary gland cell line A-253. *J. Oral Pathol. Med.* 36: 511-523.
3. Lee, H., et al. 2013. Activation of human synovial mast cells from rheumatoid arthritis or osteoarthritis patients in response to aggregated IgG through Fc γ receptor I and Fc γ receptor II. *Arthritis Rheum.* 65: 109-119.

RESEARCH USE

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



CONJUGATES

See **CD32 (AT10): sc-13527** for CD32 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.