

CD32-A/B/C (C-7): sc-166578

BACKGROUND

CD32 (also designated Fc γ RII) 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 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

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3. 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.
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CHROMOSOMAL LOCATION

Genetic locus: FCGR2A/FCGR2B/FCGR2C (human) mapping to 1q23.3.

SOURCE

CD32-A/B/C (C-7) is a mouse monoclonal antibody raised against amino acids 1-206 mapping at the N-terminus of CD32 of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

CD32-A/B/C (C-7) is recommended for detection of CD32-A, CD32-B and CD32-C of human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

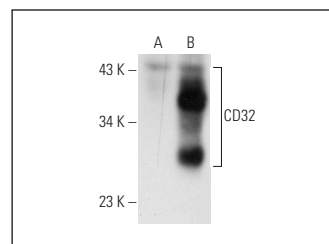
Molecular Weight of CD32-A/B/C: 40 kDa.

Positive Controls: CD32 (h3): 293T Lysate: sc-113838.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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-A/B/C (C-7): sc-166578. Western blot analysis of CD32 expression in non-transfected: sc-117752 (A) and human CD32 transfected: sc-113838 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Sheng, L., Cao, X., Chi, S., Wu, J., Xing, H., Liu, H. and Yang, Z. 2020. Overexpression of Fc γ RIIB regulates downstream protein phosphorylation and suppresses B cell activation to ameliorate systemic lupus erythematosus. *Int. J. Mol. Med.* E-published.

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.