SANTA CRUZ BIOTECHNOLOGY, INC.

# CD32 (AT10): sc-13527

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## 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 FcγRIIA, FcγRIIB1, FcγRIIB3, and FcγRIIC. All isoforms are present on monocytes, placental trophoblasts and endothelial cells. In addition, the FcγRIIB forms are present on B lymphocytes, and the FcγRIIA and FcγRIIC forms are found on neutrophils.

## CHROMOSOMAL LOCATION

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

## SOURCE

CD32 (AT10) is a mouse monoclonal antibody raised against the extracellular domain of CD32 of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD32 (AT10) is available conjugated to agarose (sc-13527 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-13527 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-13527 PE), fluorescein (sc-13527 FITC), Alexa Fluor® 488 (sc-13527 AF488), Alexa Fluor® 546 (sc-13527 AF546), Alexa Fluor® 594 (sc-13527 AF594) or Alexa Fluor® 647 (sc-13527 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-13527 AF680) or Alexa Fluor® 790 (sc-13527 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, CD32 (AT10) is available conjugated to biotin (sc-13527 B), 200 µg/ml, for WB, IHC(P) and ELISA.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## APPLICATIONS

CD32 (AT10) is recommended for detection of CD32 of human origin by immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x $10^6$ cells).

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: 40 kDa.

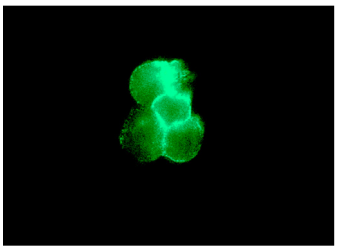
## STORAGE

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

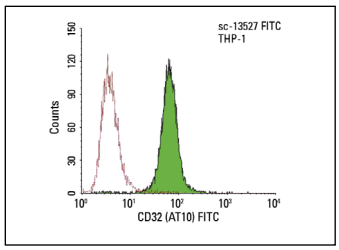
## RESEARCH USE

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

## DATA



CD32 (AT10): sc-13527. Immunofluorescence staining of methanol-fixed THP-1 cells showing membrane staining.




CD32 (AT10) FITC: sc-13527 FITC. FCM analysis of THP-1 cells. Black line histogram represents the isotype control, normal mouse $IgG_1$-FITC: sc-2855.

## SELECT PRODUCT CITATIONS


1. Devaraj, S., et al. 2006. CRP promotes monocyte-endothelial cell adhesion via Fcγ receptors in human aortic endothelial cells under static and shear flow conditions. Am. J. Physiol. Heart Circ. Physiol. 291: H1170-H1176.
2. Zheng, X., et al. 2006. Heterogeneous expression of CD32 and CD32-mediated growth suppression in human myeloma cells. Haematologica 91: 920-928.
3. Liang, Y.J., et al. 2010. Comparison of PPARδ and PPARγ in inhibiting the pro-inflammatory effects of C-reactive protein in endothelial cells. Int. J. Cardiol. 143: 361-367.
4. Fujita, Y., et al. 2010. C-reactive protein uptake by macrophage cell line via class-A scavenger receptor. Clin. Chem. 56: 478-481.
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6. Ben Mkaddem, S., et al. 2014. Shifting FcγRIIA-ITAM from activation to inhibitory configuration ameliorates arthritis. J. Clin. Invest. 124: 3945-3959.
7. Flinsenberg, T.W., et al. 2014. A novel FcγRIIa Q27W gene variant is associated with common variable immune deficiency through defective FcγRIIa downstream signaling. Clin. Immunol. 155: 108-117.
8. Corrales-Aguilar, E., et al. 2016. Highly individual patterns of virus-immune IgG effector responses in humans. Med. Microbiol. Immunol. 205: 409-424.
9. Li, H.Y., et al. 2019. Matrix sieving-enforced retrograde transcytosis regulates tissue accumulation of C-reactive protein. Cardiovasc. Res. 115: 440-452.
10. Brandsma, A.M., et al. 2019. Potent Fc receptor signaling by IgA leads to superior killing of cancer cells by neutrophils compared to IgG. Front. Immunol. 10: 704.


## PROTOCOLS

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