

CD32-A (N-20): sc-12808

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

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: FCGR2A (human) mapping to 1q23.3.

SOURCE

CD32-A (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of CD32-A of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-12808 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

CD32-A (N-20) is recommended for detection of CD32-A of human origin by Western Blotting (starting dilution 1:200, 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 siRNA (h): sc-29992, CD32-A shRNA Plasmid (h): sc-29992-SH and CD32-A shRNA (h) Lentiviral Particles: sc-29992-V.

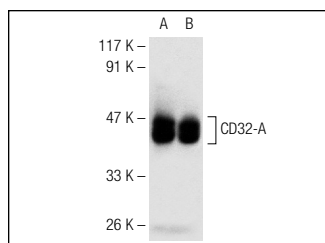
Molecular Weight of CD32-A: 37-43 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or U-937 cell lysate: sc-2239.

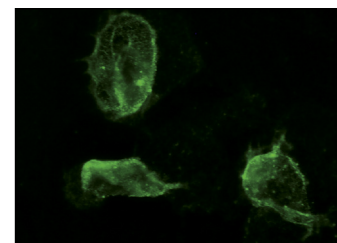
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CD32-A (N-20): sc-12808. Western blot analysis of CD32-A expression in K-562 (A) and U-937 (B) whole cell lysates.



CD32-A (N-20): sc-12808. Immunofluorescence staining of methanol-fixed K-562 cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. Canobbio, I., et al. 2006. A new role for Fc γ RIIA in the potentiation of human platelet activation induced by weak stimulation. *Cell. Signal.* 18: 861-870.
2. Garcia-Garcia, E., et al. 2007. Transmembrane mutations to Fc γ RIIA alter its association with lipid rafts: implications for receptor signaling. *J. Immunol.* 178: 3048-3058.
3. Krupa, A., et al. 2009. Anti-chemokine autoantibody:chemokine immune complexes activate endothelial cells via IgG receptors. *Am. J. Respir. Cell Mol. Biol.* 41: 155-169.