SANTA CRUZ BIOTECHNOLOGY, INC.

CD32-A/C (B-3): sc-373721

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

SOURCE

CD32-A/C (B-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 293-317 at the C-terminus of CD32-A of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD32-A/C (B-3) is available conjugated to agarose (sc-373721 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-373721 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373721 PE), fluorescein (sc-373721 FITC), Alexa Fluor® 488 (sc-373721 AF488), Alexa Fluor® 546 (sc-373721 AF546), Alexa Fluor® 594 (sc-373721 AF594) or Alexa Fluor® 647 (sc-373721 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373721 AF680) or Alexa Fluor® 790 (sc-373721 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-373721 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

CD32-A/C (B-3) is recommended for detection of CD32-A and CD32-C of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), 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 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.

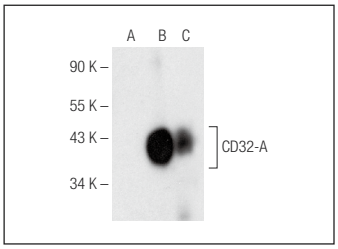
Molecular Weight of CD32-A/C: 40 kDa.

Positive Controls: U-937 cell lysate: sc-2239, AML-193 whole cell lysate: sc-364182 or CD32-A (h2): 293T Lysate: sc-174810.

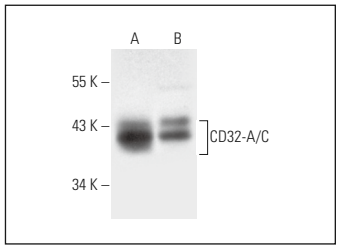
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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/C (B-3): sc-373721. Western blot analysis of CD32-A expression in non-transfected 293T: sc-117752 (**A**), human CD32-A transfected 293T: sc-174810 (**B**) and U-937 (**C**) whole cell lysates.



CD32-A/C (B-3): sc-373721. Western blot analysis of CD32-A/C expression in U-937 (**A**) and AML-193 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Trebing, J., et al. 2014. A novel llama antibody targeting Fn14 exhibits anti-metastatic activity *in vivo*. MAbs 6: 297-308.
2. Kums, J., et al. 2017. Quantitative analysis of cell surface antigen-antibody interaction using *Gaussia princeps* luciferase antibody fusion proteins. MAbs 9: 506-520.
3. Medler, J., et al. 2019. TNFRSF receptor-specific antibody fusion proteins with targeting controlled FcγR-independent agonistic activity. Cell Death Dis. 10: 224.

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.

PROTOCOLS

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