

CD55 (NaM16-4D3): sc-51733

BACKGROUND

CD55, also called decay accelerating factor (DAF), is a GPI-anchored single chain glycoprotein. CD55 may play a role in protecting cells from complement-mediated lysis by preventing the amplification steps of the complement cascade. CD55 functions to prevent the assembly of C3 convertase or to accelerate the disassembly of preformed convertase, which blocks formation of the membrane attack complex. CD55 is expressed on cells in contact with serum, including hematopoietic and many non-hematopoietic cells.

CHROMOSOMAL LOCATION

Genetic locus: CD55 (human) mapping to 1q32.2; Cd55 (mouse) mapping to 1 E4.

SOURCE

CD55 (NaM16-4D3) is a mouse monoclonal antibody raised against CD55 of human origin.

PRODUCT

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

CD55 (NaM16-4D3) is available conjugated to agarose (sc-51733 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-51733 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-51733 PE), fluorescein (sc-51733 FITC), Alexa Fluor® 488 (sc-51733 AF488), Alexa Fluor® 546 (sc-51733 AF546), Alexa Fluor® 594 (sc-51733 AF594) or Alexa Fluor® 647 (sc-51733 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-51733 AF680) or Alexa Fluor® 790 (sc-51733 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CD55 (NaM16-4D3) is recommended for detection of CD55 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for CD55 siRNA (h): sc-35012, CD55 siRNA (m): sc-35013, CD55 shRNA Plasmid (h): sc-35012-SH, CD55 shRNA Plasmid (m): sc-35013-SH, CD55 shRNA (h) Lentiviral Particles: sc-35012-V and CD55 shRNA (m) Lentiviral Particles: sc-35013-V.

Molecular Weight of CD55: 70 kDa.

Positive Controls: WiDr cell lysate: sc-24779, HeLa whole cell lysate: sc-2200 or HEL 92.1.7 cell lysate: sc-2270.

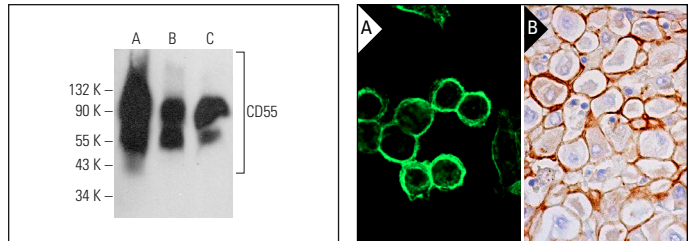
STORAGE

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



CD55 (NaM16-4D3): sc-51733. Western blot analysis of CD55 expression in HeLa (A), WiDr (B) and HEL 92.1.7 (C) whole cell lysates.

CD55 (NaM16-4D3): sc-51733. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing membrane staining of decidual cells (B).

SELECT PRODUCT CITATIONS

- Spadafora, C., et al. 2010. Complement receptor 1 is a sialic acid-independent erythrocyte receptor of *Plasmodium falciparum*. *PLoS Pathog.* 6: e1000968.
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- Goheen, M.M., et al. 2017. Host iron status and erythropoietic response to iron supplementation determines susceptibility to the RBC stage of falciparum malaria during pregnancy. *Sci. Rep.* 7: 17674.
- Stephenson, W., et al. 2018. Single-cell RNA-seq of rheumatoid arthritis synovial tissue using low-cost microfluidic instrumentation. *Nat. Commun.* 9: 791.
- Tradtrantip, L., et al. 2019. CD55 upregulation in astrocytes by statins as potential therapy for AQP4-IgG seropositive neuromyelitis optica. *J. Neuroinflammation* 16: 57.
- Kim, Y., et al. 2019. Bee venom alleviates atopic dermatitis symptoms through the upregulation of decay-accelerating factor (DAF/CD55). *Toxins* 11: 239.
- Cheng, X., et al. 2021. IL-1/IL-1R signaling induced by all-*trans*-retinal contributes to complement alternative pathway activation in retinal pigment epithelium. *J. Cell. Physiol.* 236: 3660-3674.
- Lin, W.D., et al. 2021. Sialylation of CD55 by ST3GAL1 facilitates immune evasion in cancer. *Cancer Immunol. Res.* 9: 113-122.
- Dieterle, M.E., et al. 2021. Genetic depletion studies inform receptor usage by virulent hantaviruses in human endothelial cells. *Elife* 10: e69708.

PROTOCOLS

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