

CD55 (H-7): sc-133220



The Power to Question

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.

REFERENCES

1. Seya, T., et al. 1994. Distribution of C3-step regulatory proteins of the complement system, CD35 (CR1), CD46 (MCP), and CD55 (DAF) in hematological malignancies. *Leuk. Lymphoma* 12: 395-400.
2. Nicholson-Weller, A. and Wang, C.E. 1994. Structure and function of decay accelerating factor CD55. *J. Lab. Clin. Med.* 123: 485-491.

CHROMOSOMAL LOCATION

Genetic locus: CD55 (human) mapping to 1q32.2.

SOURCE

CD55 (H-7) is a mouse monoclonal antibody raised against amino acids 35-353 of CD55 of human origin.

PRODUCT

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

CD55 (H-7) is available conjugated to agarose (sc-133220 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-133220 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-133220 PE), fluorescein (sc-133220 FITC), Alexa Fluor® 488 (sc-133220 AF488), Alexa Fluor® 546 (sc-133220 AF546), Alexa Fluor® 594 (sc-133220 AF594) or Alexa Fluor® 647 (sc-133220 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-133220 AF680) or Alexa Fluor® 790 (sc-133220 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CD55 (H-7) is recommended for detection of CD55 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 CD55 siRNA (h): sc-35012, CD55 shRNA Plasmid (h): sc-35012-SH and CD55 shRNA (h) Lentiviral Particles: sc-35012-V.

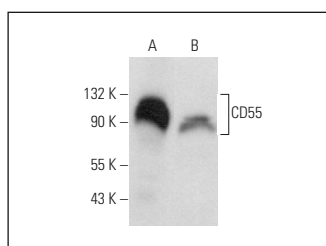
Molecular Weight of CD55: 70 kDa.

Positive Controls: CD55 (h): 293 Lysate: sc-110477, HEL 92.1.7 cell lysate: sc-2270 or HeLa whole cell lysate: sc-2200.

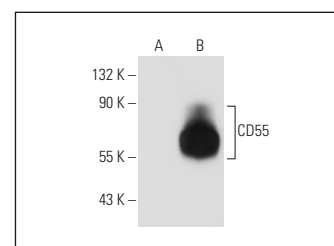
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (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 BPFITC: sc-516140 or m-IgGκ BPE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CD55 (H-7): sc-133220. Western blot analysis of CD55 expression in HeLa (A) and HEL 92.1.7 (B) whole cell lysates.



CD55 (H-7): sc-133220. Western blot analysis of CD55 expression in non-transfected: sc-110760 (A) and human CD55 transfected: sc-110477 (B) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Biswas, M., et al. 2012. Incorporation of host complement regulatory proteins into Newcastle disease virus enhances complement evasion. *J. Virol.* 86: 12708-12716.
2. Du, Y., et al. 2014. NFκB and enhancer-binding CREB protein scaffolded by CREB-binding protein (CBP)/p300 proteins regulate CD59 protein expression to protect cells from complement attack. *J. Biol. Chem.* 289: 2711-2724.
3. Ouyang, Q., et al. 2016. The membrane complement regulatory protein CD59 promotes tumor growth and predicts poor prognosis in breast cancer. *Int. J. Oncol.* 48: 2015-2024.
4. Böhnke, J., et al. 2021. Coxsackievirus B3 infection of human iPSC lines and derived primary germ-layer cells regarding receptor expression. *Int. J. Mol. Sci.* 22: 1220.
5. Ge, X., et al. 2021. Herbal NF-κB inhibitors sensitize rituximab-resistant B lymphoma cells to complement-mediated cytolysis. *Front. Oncol.* 11: 751904.

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.