SANTA CRUZ BIOTECHNOLOGY, INC.

# CD55 (H-319): sc-9156

SANTA CRUZ BIOTECHNOLOGY

*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. Nicholson-Weller, A. and Wang, C.E. 1994. Structure and function of decay accelerating factor CD55. J. Lab. Clin. Med. 123: 485-491.
2. 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.
3. Liszewski, M.K., et al. 1996. Control of the complement system. Adv. Immunol. 61: 201-283.


## CHROMOSOMAL LOCATION

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

## SOURCE

CD55 (H-319) is a rabbit polyclonal antibody raised against amino acids 35-353 of CD55 of human origin.

## PRODUCT

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

## APPLICATIONS

CD55 (H-319) 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 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 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: CD55 (h): 293T Lysate: sc-175132, CTLL-2 cell lysate: sc-2242 or HeLa whole cell lysate: sc-2200.

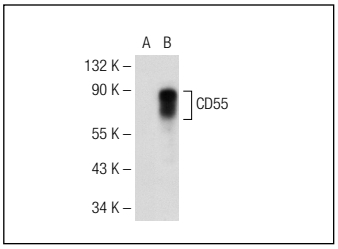
## STORAGE

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

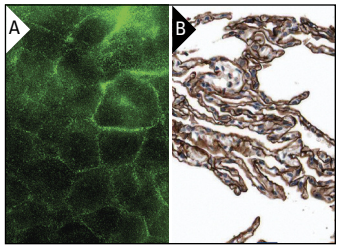
## RESEARCH USE

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

## DATA




CD55 (H-319): sc-9156. Western blot analysis of CD55 expression in non-transfected: sc-117752 (**A**) and human CD55 transfected: sc-175132 (**B**) 293T whole cell lysates.




CD55 (H-319): sc-9156. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing membrane staining of alveolar cells and macrophages. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

## SELECT PRODUCT CITATIONS


1. Esser, M.T., et al. 2001. Differential incorporation of CD45, CD80 (B7-1), CD86 (B7-2), and major histocompatibility complex class I and II molecules into human immunodeficiency virus type 1 virions and microvesicles: implications for viral pathogenesis and immune regulation. J. Virol. 75: 6173-6182.
2. Krautkrämer, E., et al. 2008. Hantavirus causing hemorrhagic fever with renal syndrome enters from the apical surface and requires decay-accelerating factor (DAF/CD55). J. Virol. 82: 4257-4264.
3. Laura, B., et al. 2008. Hypoxia-induced modifications in plasma membranes and lipid microdomains in A549 cells and primary human alveolar cells. J. Cell. Biochem. 105: 503-513.
4. El-Amouri, I.S., et al. 2010. Increased morbidity and mortality in murine cytomegalovirus-infected mice following allogeneic bone marrow transplant is associated with reduced surface decay accelerating factor expression. Clin. Exp. Immunol. 162: 379-391.
5. Botto, L., et al. 2010. Bicarbonate induces membrane reorganization and CBR1 and TRPV1 endocannabinoid receptor migration in lipid microdomains in capacitating boar spermatozoa. J. Membr. Biol. 238: 33-41.
6. Rothe, D., et al. 2010. Rapid construction of adeno-associated virus vectors expressing multiple short hairpin RNAs with high antiviral activity against echovirus 30. Oligonucleotides 20: 191-198.