SANTA CRUZ BIOTECHNOLOGY, INC.

CD55 (S-15): sc-31207

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CD55, also called decay accelerating factor (DAF), is a GPI-anchored single chain glycoprotein of approximately 70 kDa. 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., et al. 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. Lymph. 12: 395-400.
3. Bjorge, L., et al. 1996. Characterisation of the complement-regulatory proteins decay-accelerating factor (DAF, CD55) and membrane cofactor protein (MCP, CD46) on a human colonic adenocarcinoma cell line. Cancer Immunol. Immunother. 42: 185-192.
4. Spiller, O.B., et al. 1996. Complement expression on astrocytes and astrocytoma cell lines: failure of complement regulation at the C3 level correlates with very low CD55 expression. J. Neuroimmunol. 71: 97-106.
5. van Denderen, B.J., et al. 1996. Expression of functional decay-accelerating factor (CD55) in transgenic mice protects against human complement-mediated attack. Transplantation 61: 582-588.
6. Liszewski, M.K., et al. 1996. Control of the complement system. Adv. Immunol. 61: 201-283.
7. Kuttner-Kondo, L., et al. 1996. Molecular modeling and mechanism of action of human decay-accelerating factor. Protein Eng. 9: 1143-1149.

CHROMOSOMAL LOCATION

Genetic locus: Daf1 (mouse) mapping to 1 E4.

SOURCE

CD55 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CD55 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-31207 P, (100 µg 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.

APPLICATIONS

CD55 (S-15) is recommended for detection of CD55, mature chain of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (m): sc-35013.

Molecular Weight of CD55: 70-75 kDa.

Positive Controls: MCP-5 whole cell lysate or CTLL-2 cell lysate: sc-2242.

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) 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.

RESEARCH USE

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

PROTOCOLS

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