SANTA CRUZ BIOTECHNOLOGY, INC.

CD35 (J3D3): sc-59022

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The Power to Question

BACKGROUND

CD35, also called complement receptor I (CR1), functions as the receptor for complement components C3b and C4b, and it mediates the phagocytosis by neutrophils and monocytes of particles coated with C3b or C4b. CD35 is expressed on granulocytes, monocytes, B cells, some NK cells and erythrocytes. CD35 is implicated in systemic lupus erythematosus (SLE), a chronic systemic autoimmune disease characterized by the production of a broad spectrum of autoantibodies against nuclear, cytoplasmic, and cell surface antigens and an overload of the immune complex. There is an increased proteolytic cleavage of leukocyte cell surface CD35 in SLE patients. Sequence analysis suggests that Crry may be the mouse genetic homolog of the CD35 antigen encoded by the human gene CR1.

REFERENCES

1. Klickstein, L.B., et al. 1987. Human C3b/C4b receptor (CR1). Demonstration of long homologous repeating domains that are composed of the short consensus repeats characteristics of C3/C4 binding proteins. J. Exp. Med. 165: 1095-1112.
2. Klickstein, L.B., et al. 1988. Identification of distinct C3b and C4b recognition sites in the human C3b/C4b receptor (CR1, CD35) by deletion mutagenesis. J. Exp. Med. 168: 1699-1717.
3. Wong, W.W., et al. 1989. Structure of the human CR1 gene. Molecular basis of the structural and quantitative polymorphisms and identification of a new CR1-like allele. J. Exp. Med. 169: 847-863.
4. Ahearn, J.M., et al. 1989. Structure and function of the complement receptors, CR1 (CD35) and CR2 (CD21). Adv. Immunol. 46: 183-219.
5. Fearon, D.T., et al. 1990. Complement receptor type I (C3b/C4b receptor; CD35) and complement receptor type 2 (C3d/Epstein-Barr virus receptor; CD21). Curr. Top. Microbiol. Immunol. 153: 83-98.
6. Kalli, K.R., et al. 1991. Mapping of the C3b-binding site of CR1 and construction of a $(CR1)_2$-$F(ab')_2$ chimeric complement inhibitor. J. Exp. Med. 174: 1451-1460.
7. Krych, M., et al. 1991. Sites within the complement C3b/C4b receptor important for the specificity of ligand binding. Proc. Natl. Acad. Sci. USA 88: 4354-4357.
8. 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.

CHROMOSOMAL LOCATION

Genetic locus: CR1 (human) mapping to 1q32.2.

SOURCE

CD35 (J3D3) is a mouse monoclonal antibody raised against full length native CD35 of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and 0.1% stabilizer protein.

APPLICATIONS

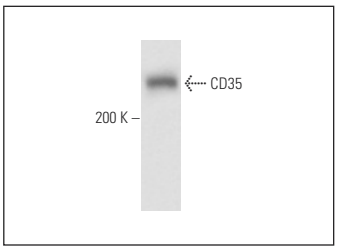
CD35 (J3D3) is recommended for detection of CD35 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (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 CD35 siRNA (h): sc-29994, CD35 shRNA Plasmid (h): sc-29994-SH and CD35 shRNA (h) Lentiviral Particles: sc-29994-V.

Molecular Weight of CD35: 220 kDa.

Positive Controls: TF-1 cell lysate: sc-2412 or HeLa whole cell lysate: sc-2200.

DATA



CD35 (J3D3): sc-59022. Western blot analysis of CD35 expression in TF-1 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Bowyer, P.W., et al. 2015. Variation in *Plasmodium falciparum* erythrocyte invasion phenotypes and merozoite ligand gene expression across different populations in areas of malaria endemicity. Infect. Immun. 83: 2575-2582.
2. Awandare, G.A., et al. 2018. Plasmodium falciparum strains spontaneously switch invasion phenotype in suspension culture. Sci. Rep. 8: 5782.
3. Thiam, L.G., et al. 2021. Blood donor variability is a modulatory factor for *P. falciparum* invasion phenotyping assays. Sci. Rep. 11: 7129.

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.