

CD35 (H-2): sc-166329

BACKGROUND

CD35, also called complement receptor 1 (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. Ahearn, J.M. and Fearon, D.T. 1989. Structure and function of the complement receptors, CR1 (CD35) and CR2 (CD21). *Adv. Immunol.* 46: 183-219.

CHROMOSOMAL LOCATION

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

SOURCE

CD35 (H-2) is a mouse monoclonal antibody raised against amino acids 1740-2039 of CD35 of human origin.

PRODUCT

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

APPLICATIONS

CD35 (H-2) is recommended for detection of CD35 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 CD35 siRNA (h): sc-29994, CD35 shRNA Plasmid (h): sc-29994-SH and CD35 shRNA (h) Lentiviral Particles: sc-29994-V.

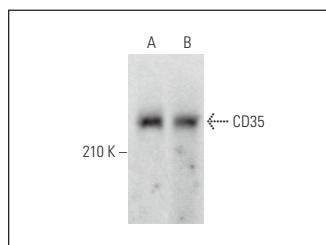
Molecular Weight of CD35: 220 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, TF-1 cell lysate: sc-2412 or human kidney extract: sc-363764.

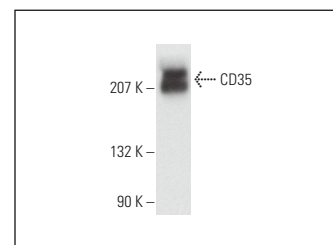
RECOMMENDED SUPPORT REAGENTS

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

DATA



CD35 (H-2): sc-166329. Western blot analysis of CD35 expression in HL-60 whole cell lysate (A) and human kidney tissue extract (B).



CD35 (H-2): sc-166329. Western blot analysis of CD35 expression in TF-1 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Brouwers, N., et al. 2012. Alzheimer risk associated with a copy number variation in the complement receptor 1 increasing C3b/C4b binding sites. *Mol. Psychiatry* 17: 223-233.
2. Hazrati, L.N., et al. 2012. Genetic association of CR1 with Alzheimer's disease: a tentative disease mechanism. *Neurobiol. Aging* 33: 2949.e5-2949.e12.
3. Fonseca, M.I., et al. 2016. Analysis of the putative role of CR1 in Alzheimer's disease: genetic association, expression and function. *PLoS ONE* 11: e0149792.
4. Johansson, J.U., et al. 2018. Peripheral complement interactions with Amyloid β peptide in Alzheimer's disease: polymorphisms, structure, and function of complement receptor 1. *Alzheimers Dement.* 14: 1438-1449.

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.