SANTA CRUZ BIOTECHNOLOGY, INC.

CD21 (M-19): sc-7027

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CD21 is a 145 kDa type I integral membrane glycoprotein that serves as a receptor for the C3d complement fragment and for the Epstein-Barr virus. It plays a role in B cell activation and proliferation and undergoes phosphorylation after B cell activation with phorbol esters. CD21 is expressed on mature B cells, follicular dendritic cells, pharyngeal and cervical epithelial cells and a subset of thymocytes.

REFERENCES

1. Tanner, J., et al. 1987. Epstein-Barr virus gp350/220 binding to the B lymphocyte C3d receptor mediates adsorption, capping, and endocytosis. Cell 50: 203-213.
2. Ahearn, J.M., et al. 1989. Structure and function of the complement receptors, CR1 (CD35) and CR2 (CD21). Adv. Immunol. 46: 183-219.
3. Tedder, Z.F., et al. 1994. The CD19/CD21 signal transduction complex of B lymphocytes. Immunol. Today 15: 437-442.
4. Molina, H., et al. 1995. Characterization of a complement receptor 2 (CR2, CD21) ligand binding site for C3. An initial model of ligand interaction with two linked short consensus repeat modules. J. Immunol. 154: 5426-5435.
5. Roberts, M.L., et al. 1996. Epstein-Barr virus binding to CD21, the virus receptor, activates resting B cells via an intracellular pathway that is linked to B cell infection. J. Gen. Virol. 77: 3077-3085.
6. Shubinsky, G., et al. 1997. Pathways controlling the expression of surface CD21 (CR2) and CD23 (FCε IIR) proteins in human malignant B cells. Leuk. Lymphoma 25: 521-530.

SOURCE

CD21 (M-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CD21 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-7027 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CD21 (M-19) is recommended for detection of CD21 of mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD21 siRNA (m): sc-29975, CD21 shRNA Plasmid (m): sc-29975-SH and CD21 shRNA (m) Lentiviral Particles: sc-29975-V.

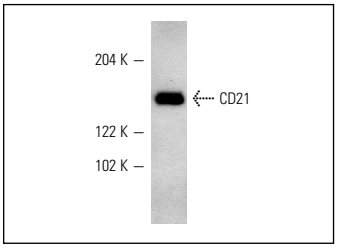
Molecular Weight of CD21: 145 kDa.

Positive Controls: WEHI-231 whole cell lysate: sc-2213.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



CD21 (M-19): sc-7027. Western blot analysis of CD21 expression in WEHI-231 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Hasegawa, M., et al. 2001. CD19 can regulate B lymphocyte signal transduction independent of complement activation. J. Immunol. 167: 3190-3200.
2. Leitges, M., et al. 2001. Targeted disruption of the ζPKC gene results in the impairment of the NFκB pathway. Mol. Cell 8: 771-780.
3. Debnath, I., et al. 2007. Defining *in vivo* transcription factor complexes of the murine CD21 and CD23 genes. J. Immunol. 178: 7139-7150.

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.