

CD20 (C-20): sc-7733

BACKGROUND

CD20 is a leukocyte surface antigen consisting of four transmembrane regions and cytoplasmic N- and C-termini. The cytoplasmic domain of CD20 contains multiple phosphorylation sites, leading to additional isoforms. CD20 is expressed primarily on B cells but has also been detected on both normal and neoplastic T cells. CD20 functions as a calcium-permeable cation channel, and it is known to accelerate the G₀ to G₁ progression induced by IGF-1. CD20 is activated by the IGF-1 receptor via the α subunits of the heterotrimeric G proteins. Activation of CD20 significantly increases DNA synthesis and is thought to involve basic helix-loop-helix leucine zipper transcription factors.

REFERENCES

1. Tedder, T.F., et al. 1994. CD20: a regulator of cell-cycle progression of B lymphocytes. *Immunol. Today* 15: 450-454.
2. Schlossman, S., et al., eds. 1995. *Leucocyte Typing V*. New York: Oxford University Press.
3. Algino, K.M., et al. 1996. CD20 (pan-B cell antigen) expression on bone marrow-derived T cells. *Am. J. Clin. Pathol.* 106: 78-81.

CHROMOSOMAL LOCATION

Genetic locus: MS4A1 (human) mapping to 11q12.2.

SOURCE

CD20 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CD20 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-7733 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CD20 (C-20) is recommended for detection of CD20 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

CD20 (C-20) is also recommended for detection of CD20 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for CD20 siRNA (h): sc-29972, CD20 shRNA Plasmid (h): sc-29972-SH and CD20 shRNA (h) Lentiviral Particles: sc-29972-V.

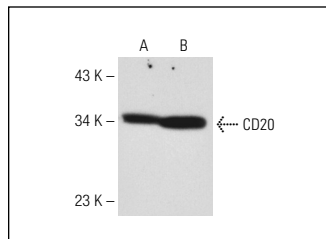
Molecular Weight of CD20 isoforms: 33-37 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207, Ramos cell lysate: sc-2216 or Jurkat whole cell lysate: sc-2204.

STORAGE

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

DATA



CD20 (C-20): sc-7733. Western blot analysis of CD20 expression in BJAB (A) and Ramos (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Manshouri T., et al. 2003. Circulating CD20 is detectable in the plasma of patients with chronic lymphocytic leukemia and is of prognostic significance. *Blood* 101: 2507-2513.
2. Bare, P., et al. 2005. Continuous release of hepatitis C virus (HCV) by peripheral blood mononuclear cells and B-lymphoblastoid cell-line cultures derived from HCV-infected patients. *J. Gen. Virol.* 86: 1717-1727.
3. Soussain, C., et al. 2007. Characterization and magnetic resonance imaging of a rat model of human B-cell central nervous system lymphoma. *Clin. Cancer Res.* 13: 2504-2511.
4. Jahnke, K., et al. 2009. Efficacy and MRI of rituximab and methotrexate treatment in a nude rat model of CNS lymphoma. *Neuro Oncology* 11: 503-513.

RESEARCH USE

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

PROTOCOLS

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