

# CD7 (N-19): sc-6992

## BACKGROUND

CD7 is a type I transmembrane glycoprotein that is expressed on pluripotential hemopoietic cells, most human thymocytes and some peripheral blood T cells. CD7 is a marker for pluripotential stem cell leukemias and T cell acute lymphocytic leukemia. A role for CD7 in the activation of T cells with g/d receptors has been suggested. CD8 T cells from patients infected with HIV-1 displayed profound down-modulation of CD7 expression as compared with healthy subjects. CD7 is among the pan-T-cell antigens down-regulated in acute infectious mononucleosis.

## REFERENCES

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- Ward, S.G., et al. 1995. Antibody ligation of CD7 leads to association with phosphoinositide 3-kinase and phosphatidylinositol 3,4,5-triphosphate formation in T lymphocytes. *Eur. J. Immunol.* 25: 502-507.
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- Tiftik, N., et al. 2004. The importance of CD7 and CD56 antigens in acute leukaemias. *Int. J. Clin. Pract.* 58:149-152.
- Aandahl, E.M., et al. 2004. Expansion of CD7(low) and CD7(negative) CD8 T cell effector subsets in HIV-1 infection: correlation with antigenic load and reversion by antiretroviral treatment. *Blood* 104: 3672-3678.

## CHROMOSOMAL LOCATION

Genetic locus: CD7 (human) mapping to 17q25.3.

## SOURCE

CD7 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of CD7 of human 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-6992 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as fluorescein conjugate for immunofluorescence, sc-6992 FITC, 200 µg/1 ml.

## APPLICATIONS

CD7 (N-19) is recommended for detection of CD7 (also designated T cell leukemia antigen) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD7 siRNA (h): sc-35021, CD7 shRNA Plasmid (h): sc-35021-SH and CD7 shRNA (h) Lentiviral Particles: sc-35021-V.

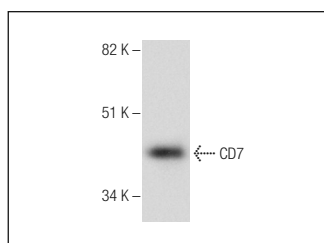
Molecular Weight of CD7: 40 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, Jurkat whole cell lysate: sc-2204 or human PBL whole cell lysate.

## 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



CD7 (N-19): sc-6992. Western blot analysis of CD7 expression in CCRF-CEM whole cell lysate.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.