

CD57 (NK-1): sc-6261



The Power to Question

BACKGROUND

Over 100 cell surface markers have been identified through the use of monoclonal antibodies. Many of these markers have proven useful in identifying a specific subpopulation of cells within a mixed colony. Accordingly, these molecules have been assigned a "cluster of differentiation" (CD) designation. T lymphocytes displaying the natural killer (NK) cell marker CD57 (also designated Leu7) on their cell surface are distinguishable from other T cell subsets by their granular lymphocyte morphology and their clonal expansion in patients with AIDS and in recipients of bone marrow transplantation. CD57-positive cells have also been shown to localize to sites of certain tumors and large numbers of these cells are detected in the synovial fluid from patients suffering from rheumatoid arthritis.

REFERENCES

- Holter, W., et al. 1991. Phenotypical and functional characterization of leukocytes—the CD-system. *Wien. Klin. Wochenschr.* 103: 247-262.
- Dupuy d'Angeac, A., et al. 1993. Increased percentage of CD3⁺, CD57⁺ lymphocytes in patients with rheumatoid arthritis. *Arthritis Rheum.* 36: 608-612.

CHROMOSOMAL LOCATION

Genetic locus: B3GAT1 (human) mapping to 11q25; B3gat1 (mouse) mapping to 9 A4.

SOURCE

CD57 (NK-1) is a mouse monoclonal antibody raised against peripheral blood mononuclear cells of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD57 (NK-1) is available conjugated to either phycoerythrin (sc-6261 PE) or fluorescein (sc-6261 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

CD57 (NK-1) is recommended for detection of CD57 of mouse, rat and 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 flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for CD57 siRNA (h): sc-42798, CD57 siRNA (m): sc-60690, CD57 shRNA Plasmid (h): sc-42798-SH, CD57 shRNA Plasmid (m): sc-60690-SH, CD57 shRNA (h) Lentiviral Particles: sc-42798-V and CD57 shRNA (m) Lentiviral Particles: sc-60690-V.

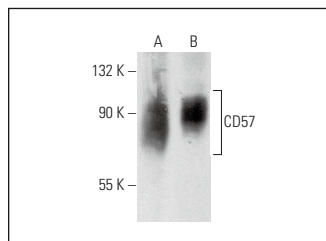
Molecular Weight of CD57: 110 kDa.

Positive Controls: CD57 (h2): 293T Lysate: sc-175164, SK-N-SH cell lysate: sc-2410 or K-562 whole cell lysate: sc-2203.

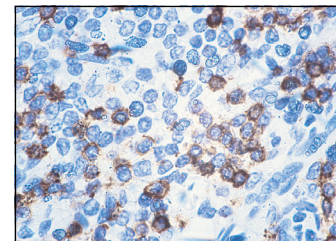
STORAGE

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

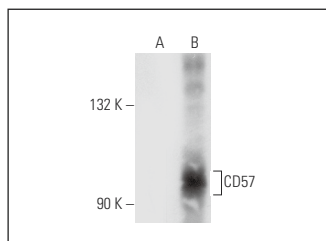
DATA



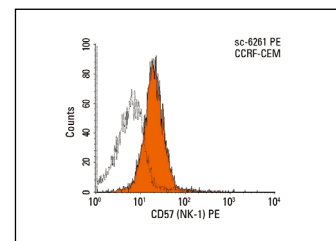
CD57 (NK-1): sc-6261. Western blot analysis of CD57 expression in K-562 (A) and SK-N-SH (B) whole cell lysates.



CD57 (NK-1): sc-6261. Immunoperoxidase staining of formalin-fixed, paraffin-embedded normal human lymph node at high magnification showing membrane staining.



CD57 (NK-1): sc-6261. Western blot analysis of CD57 expression in non-transfected: sc-117752 (A) and human CD57 transfected: sc-175164 (B) 293T whole cell lysates.



CD57 (NK-1) PE: sc-6261 PE. FCM analysis of CCRF-CEM cells. Black line histogram represents the isotype control, normal mouse IgM-PE: sc-2870.

SELECT PRODUCT CITATIONS

- da Silveira, A.B., et al. 2005. Comparative study of the presence of *Trypanosoma cruzi* kDNA, inflammation and denervation in chagasic patients with and without megaesophagus. *Parasitology* 131: 627-634.
- da Silveira, A.B., et al. 2007. Megacolon in Chagas disease: a study of inflammatory cells, enteric nerves, and glial cells. *Hum. Pathol.* 38: 1256-1264.
- Penkowa, M., et al. 2009. Metallothionein as a useful marker in Hodgkin lymphoma subclassification. *Leuk. Lymphoma* 50: 200-210.
- Türkseven, M.R., et al. 2010. Evaluation of natural killer cell defense in oral squamous cell carcinoma. *Oral Oncol.* 46: e34-e37.
- Unachukwu, U., et al. 2021. Renal neoplasms in tuberous sclerosis mice are neurocristopathies. *iScience* 24: 102684.

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.