SANTA CRUZ BIOTECHNOLOGY, INC.

CD57 (E-12): sc-49195



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 Rheuma. 36: 608-612.
- Kamel, O.W., et al. 1993. Leu 7 (CD57) reactivity distinguishes nodular lymphocyte predominance Hodgkin's disease from nodular sclerosing Hodgkin's disease, T cell-rich B cell lymphoma and follicular lymphoma. Am. J. Pathol. 142: 541-546.
- 4. Yamashita, N., et al. 1993. Phenotypic properties and cytotoxic functions of human CD8+ cells expressing the CD57 antigen. Nat. Immunol. 12: 79-91.
- Fukuda, H., et al. 1994. Marked increase of CD8+S6F1+ and CD8+CD57+ cells in patients with graft-versus-host disease after allogeneic bone marrow transplantation. Bone Marrow Transplant. 13: 181-185.
- Kim, Y.B., et al. 1994. CD11/CD18 panel report for swine CD workshop. Vet. Immunol. Immunopathol. 43: 289-291.
- Okada, T., et al. 1995. Origin of CD57⁺ T cells which increase at tumour sites in patients with colorectal cancer. Clin. Exp. Immunol. 102: 159-166.
- 8. Kern, F., et al. 1996. The enigma of CD57+CD28- T cell expansion anergy or activation? Clin. Exp. Immunol. 104: 180-184.

CHROMOSOMAL LOCATION

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

SOURCE

CD57 (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CD57 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-49195 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CD57 (E-12) 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), 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 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: CCRF-CEM cell lysate: sc-2225.

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) Immunofluo-rescence: 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.

STORAGE

Store at 4° C, **D0 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 or our catalog for detailed protocols and support products.

MONOS Satisfation Guaranteed

Try CD57 (NK-1): sc-6261 or CD57 (HNK-1):

sc-81633, our highly recommended monoclonal alternatives to CD57 (E-12).