

T Cell Marker (KEN-5): sc-59373

BACKGROUND

T cells, along with B cells and NK cells, belong to the group of white blood cells known as lymphocytes. They play a central role in cell-mediated immunity and are distinguished by their T cell receptor (TCR), a special receptor on their cell surface. T cells originate in the bone marrow, mature in the thymus and travel in the blood to other lymphoid tissues, such as the tonsils, spleen and lymph nodes. CD2, CD3, CD5 and CD7 are pan T Cell Markers as they are present on most normal mature T cells. Of the pan T Cell Markers, CD2 and CD3 are the most specific for T cells. CD5 is strongly associated with T cells but is also expressed on a small subset of normal B lymphocytes and in B-chronic lymphocytic leukemia. CD7 may occasionally be present on early myeloid cells, especially in leukemia. In acute infectious mononucleosis, there is downregulation of the pan T Cell Markers, namely CD7, and in Sezary syndrome, a T cell cutaneous lymphoma, the T cells express CD4 but do not usually express CD7.

REFERENCES

1. Grunow, R., et al. 1987. Masking of pan T cell markers in patients with autoimmune diseases. *Dermatol. Monatsschr.* 173: 390-399.
2. Moingeon, P., et al. 1989. The structural biology of CD2. *Immunol. Rev.* 111: 111-144.
3. Egeland, T., et al. 1991. Myeloid differentiation human granulocyte-mono-cyete colony-stimulating factor (CSF), granulocyte-CSF, monocyte-CSF and interleukin-3. *Blood* 78: 3192-3199.

SOURCE

T Cell Marker (KEN-5) is a mouse monoclonal antibody raised against thymocytes of rabbit origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

T Cell Marker (KEN-5) is available conjugated to agarose (sc-59373 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-59373 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-59373 PE), fluorescein (sc-59373 FITC), Alexa Fluor® 488 (sc-59373 AF488), Alexa Fluor® 546 (sc-59373 AF546), Alexa Fluor® 594 (sc-59373 AF594) or Alexa Fluor® 647 (sc-59373 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-59373 AF680) or Alexa Fluor® 790 (sc-59373 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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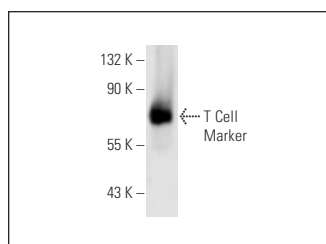
APPLICATIONS

T Cell Marker (KEN-5) is recommended for detection of thymocytes of rabbit 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 flow cytometry (1 µg per 1 x 10⁶ cells); non cross-reactive with rabbit CD5 transfectants; may cross-react with mesenteric lymph node cells.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



T Cell Marker (KEN-5): sc-59373. Western blot analysis of T Cell Marker antigen expression in rabbit thymus tissue extract under non-reducing conditions.

SELECT PRODUCT CITATIONS

1. Pospisil, R., et al. 2009. Characterization of rabbit CD5 isoforms. *Mol. Immunol.* 46: 2456-2464.
2. Lugo, L., et al. 2012. Effects of PTH [1-34] on synovioathy in an experimental model of osteoarthritis preceded by osteoporosis. *Osteoarthritis Cartilage* 20: 1619-1630.
3. Guan, L., et al. 2013. Use of a silk fibroin-chitosan scaffold to construct a tissue-engineered corneal stroma. *Cells Tissues Organs* 198: 190-197.
4. Wacker, B.K., et al. 2017. Local vascular gene therapy with apolipoprotein A-I to promote regression of atherosclerosis. *Arterioscler. Thromb. Vasc. Biol.* 37: 316-327.
5. Wacker, B.K., et al. 2018. Apo A-I (apolipoprotein A-I) vascular gene therapy provides durable protection against atherosclerosis in hyperlipidemic rabbits. *Arterioscler. Thromb. Vasc. Biol.* 38: 206-217.
6. Park, H.A., et al. 2019. *Physalis peruviana* L. inhibits ovalbumin-induced airway inflammation by attenuating the activation of NFκB and inflammatory molecules. *Int. J. Mol. Med.* 43: 1830-1838.

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.