

CD27L (FR70): sc-19674

BACKGROUND

The tumor necrosis factor (TNF) receptor family is composed of several type I integral membrane glycoproteins that exhibit homology in their cysteine-rich extracellular domains. Members of this family include FAS, OX40, CD27 and CD30. Ligands for these receptors are often type II transmembrane glycoproteins, as is the case for CD27 and CD30. CD27 is a homodimeric lymphocyte-specific surface antigen present on T and B lymphocytes. Activation of the CD3 complex via the T cell receptor for antigen leads to an increase in CD27 expression. Together, CD27 and its ligand, CD27L, generate co-stimulatory signals required for complete T cell activation. CD30 is a surface marker for neoplastic cells of the Hodgkin's lymphoma and related hematologic malignancies. CD30L has been shown to enhance the proliferation of the Hodgkin's cell line HDLM-2, but exerts antiproliferative effects on large cell anaplastic lymphoma cell lines.

REFERENCES

1. Smith, C.A., et al. 1993. CD30 antigen, a marker for Hodgkin's lymphoma, is a receptor whose ligand defines an emerging family of cytokines with homology to TNF. *Cell* 73: 1349-1360.
2. Armitage, R.J. 1994. Tumor necrosis factor receptor superfamily members and their ligands. *Curr. Opin. Immunol.* 6: 407-413.
3. Hintzen, R.Q., et al. 1994. CD27: marker and mediator of T-cell activation. *Immunol. Today* 15: 307-311.
4. Gruss, H.J., et al. 1995. Tumor necrosis factor ligand superfamily: involvement in the pathology of malignant lymphomas. *Blood* 85: 3378-3404.
5. Lens, S.M., et al. 1995. CD27-CD70 interaction: unravelling its implication in normal and neoplastic B cell growth. *Leuk. Lymphoma* 18: 51-59.
6. Wendtner, C.M., et al. 1995. CD30 ligand signal transduction involves activation of a tyrosine kinase and of mitogen-activated protein kinase in a Hodgkin's lymphoma cell line. *Cancer Res.* 55: 4157-4161.
7. Bowen, M.A., et al. 1996. Structure and expression of murine CD30 and its role in cytokine production. *J. Immunol.* 156: 442-449.

CHROMOSOMAL LOCATION

Genetic locus: Cd70 (mouse) mapping to 17 D.

SOURCE

CD27L (FR70) is a rat monoclonal antibody raised against BALB/c mouse B lymphoma A20.2J.

PRODUCT

Each vial contains 200 µg IgG_{2b} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for blocking ligand binding, sc-19674 L, 200 µg/0.1 ml.

CD27L (FR70) is available conjugated to either phycoerythrin (sc-19674 PE) or fluorescein (sc-19674 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

APPLICATIONS

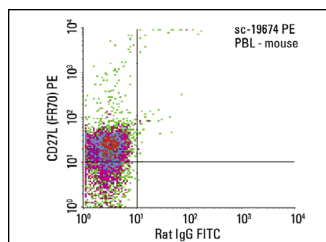
CD27L (FR70) is recommended for detection of CD27L of mouse origin by immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for CD27L siRNA (m): sc-42765, CD27L shRNA Plasmid (m): sc-42765-SH and CD27L shRNA (m) Lentiviral Particles: sc-42765-V.

Molecular Weight of CD27L: 29 kDa.

Positive Controls: RAW 264.7+LPS/PMA cell lysate: sc-2212.

DATA



CD27L (FR70) PE: sc-19674 PE. FCM analysis of mouse peripheral blood leukocytes. Quadrant markers were set based on the isotype control, normal rat IgG_{2b}-PE: sc-2873.

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 for detailed protocols and support products.