

CD27 (h): 293T Lysate: sc-174703

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 costimulatory 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: CD27 (human) mapping to 12p13.31.

PRODUCT

CD27 (h): 293T Lysate represents a lysate of human CD27 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

CD27 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive CD27 antibodies. Recommended use: 10-20 µl per lane.

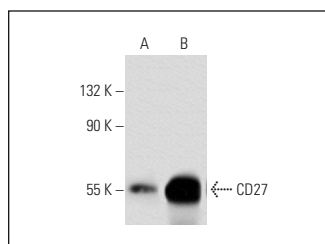
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CD27 (B-8): sc-25289 is recommended as a positive control antibody for Western Blot analysis of enhanced human CD27 expression in CD27 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



CD27 (B-8): sc-25289. Western blot analysis of CD27 expression in non-transfected: sc-117752 (A) and human CD27 transfected: sc-174703 (B) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.