

CD27 (M-20): sc-1743

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.

CHROMOSOMAL LOCATION

Genetic locus: CD27 (human) mapping to 12p13.31; Cd27 (mouse) mapping to 6 F3.

SOURCE

CD27 (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CD27 of mouse 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-1743 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

CD27 (M-20) is recommended for detection of CD27 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

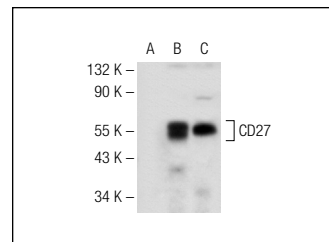
CD27 (M-20) is also recommended for detection of CD27 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CD27 siRNA (h): sc-29981, CD27 siRNA (m): sc-29980, CD27 shRNA Plasmid (h): sc-29981-SH, CD27 shRNA Plasmid (m): sc-29980-SH, CD27 shRNA (h) Lentiviral Particles: sc-29981-V and CD27 shRNA (m) Lentiviral Particles: sc-29980-V.

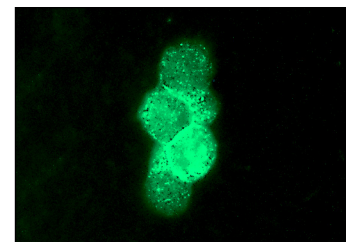
Molecular Weight of CD27: 55 kDa.

Positive Controls: CD27 (h2): 293T Lysate: sc-174725, Ramos cell lysate: sc-2216 or KNRK whole cell lysate: sc-2214.

DATA



CD27 (M-20): sc-1743. Western blot analysis of CD27 expression in non-transfected 293T: sc-117752 (A), human CD27 transfected 293T: sc-174725 (B) and Ramos (C) whole cell lysates.



CD27 (M-20): sc-1743. Immunofluorescence staining of methanol-fixed Ramos cells showing membrane localization.

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.

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Try **CD27 (B-8): sc-25289** or **CD27 (F-8): sc-390079**, our highly recommended monoclonal alternatives to CD27 (M-20).