

CD27 (N-19): sc-1740

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.

CHROMOSOMAL LOCATION

Genetic locus: CD27 (human) mapping to 12p13.31.

SOURCE

CD27 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of CD27 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.

CD27 (N-19) is available conjugated fluorescein (sc-1740 FITC, 200 µg/ml), for IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-1740 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.

RESEARCH USE

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

APPLICATIONS

CD27 (N-19) is recommended for detection of CD27 of 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).

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

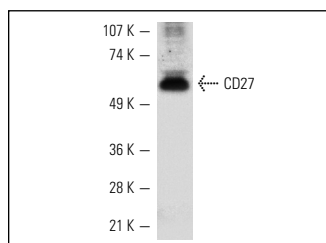
Molecular Weight of CD27: 55 kDa.

Positive Controls: Ramos cell lysate: sc-2216.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: 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.

DATA



CD27 (N-19): sc-1740. Western blot analysis of CD27 expression in Ramos whole cell lysate.

SELECT PRODUCT CITATIONS

1. Katayama, Y., et al. 2003. A possible role for the loss of CD27-CD70 interaction in myelomagenesis. *Br. J. Haematol.* 120: 223-234.

MONOS
Satisfaction
Guaranteed

Try **CD27 (B-8): sc-25289** or **CD27 (F-8): sc-390079**, our highly recommended monoclonal alternatives to CD27 (N-19).