

# CD27 (B-8): sc-25289

## 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

CD27 (B-8) is a mouse monoclonal antibody raised against amino acids 1-260 of CD27 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD27 (B-8) is available conjugated to agarose (sc-25289 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-25289 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-25289 PE), fluorescein (sc-25289 FITC), Alexa Fluor<sup>®</sup> 488 (sc-25289 AF488), Alexa Fluor<sup>®</sup> 546 (sc-25289 AF546), Alexa Fluor<sup>®</sup> 594 (sc-25289 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-25289 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-25289 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-25289 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

CD27 (B-8) is recommended for detection of CD27 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:5,000), 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), immunohistochemistry (including paraffin-embedded sections) (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 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.

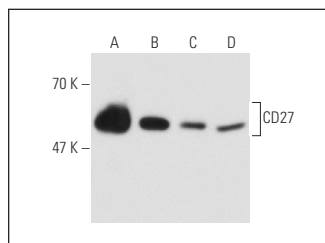
Molecular Weight of CD27: 55 kDa.

Positive Controls: Ramos cell lysate: sc-2216, IB4 whole cell lysate: sc-364780 or SUP-T1 whole cell lysate: sc-364796.

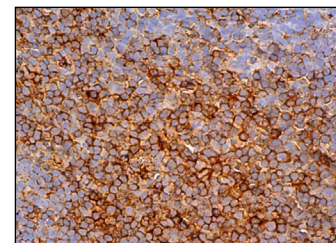
## RECOMMENDED SUPPORT REAGENTS

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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



CD27 (B-8): sc-25289. Western blot analysis of CD27 expression in Ramos (A), SUP-T1 (B), IB4 (C) and KNRK (D) whole cell lysates.



CD27 (B-8): sc-25289. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse lymph node tissue showing membrane staining of cells in germinal center.

## SELECT PRODUCT CITATIONS

- Ren, H.Y., et al. 2017. Positive feedback loop of IL-1β/Akt/RARα/Akt signaling mediates oncogenic property of RARα in gastric carcinoma. *Oncotarget* 8: 6718-6729.
- Tran-Nguyen, T.K., et al. 2020. CD70 activation decreases pulmonary fibroblast production of extracellular matrix proteins. *Am. J. Respir. Cell Mol. Biol.* 63: 255-265.
- Su, W.P., et al. 2020. Therapeutic Zfra4-10 or WWOX7-21 peptide induces complex formation of WWOX with selective protein targets in organs that leads to cancer suppression and spleen cytotoxic memory Z cell activation *in vivo*. *Cancers* 12: E2189.

## 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](http://www.scbt.com) for detailed protocols and support products.

Alexa Fluor<sup>®</sup> is a trademark of Molecular Probes, Inc., Oregon, USA