10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-TNFRSF7/CD27 Picoband Antibody

Catalog # ABO12616

Product Information

Application	WB, IHC-P, IHC-F, FC, ICC
Primary Accession	P26842
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for CD27 antigen(CD27) detection. Tested with WB, IHC-P, IHC-F, ICC, FCM in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	939
Other Names	CD27 antigen, CD27L receptor, T-cell activation antigen CD27, T14, Tumor necrosis factor receptor superfamily member 7, CD27, CD27, TNFRSF7
Calculated MW	29137
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, By Heat Immunohistochemistry(Frozen Section), 0.5-1 □g/ml Immunocytochemistry, 0.5-1 □g/ml Western blot, 0.1-0.5 □g/ml Flow Cytometry, 1-3 □¼g/1x10^{6}cells
Subcellular Localization	Membrane; Single-pass type I membrane protein.
Tissue Specificity	Found in most T-lymphocytes.
Source	Eukaryota
Protein Name	CD27 antigen
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived human CD27 recombinant protein (Position: A20-R191). Human CD27 shares 62.8% amino acid (aa) sequence identity with mouse CD27.
Purification	Immunogen affinity purified.

Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

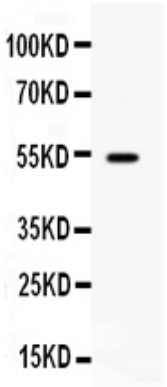
Protein Information

Name	CD27 (HGNC:11922)
Function	Costimulatory immune-checkpoint receptor expressed at the surface of T-cells, NK-cells and B-cells which binds to and is activated by its ligand CD70/CD27L expressed by B-cells (PubMed:28011863). The CD70-CD27 signaling pathway mediates antigen- specific T-cell activation and expansion which in turn provides immune surveillance of B-cells (PubMed:28011863). Mechanistically, CD70 ligation activates the TRAF2-PTPN6 axis that subsequently inhibits LCK phosphorylation to promote phenotypic and transcriptional adaptations of T-cell memory (PubMed:38354704). In addition, activation by CD70 on early progenitor cells provides a negative feedback signal to leukocyte differentiation during immune activation and thus modulates hematopoiesis (By similarity). Negatively regulates the function of Th2 lymphocytes in the adipose tissue (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Found in most T-lymphocytes.

Background

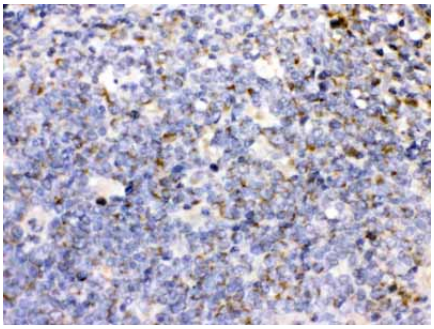
CD27 is a member of the tumor necrosis factor receptor superfamily. This receptor is required for generation and long-term maintenance of T cell immunity. It binds to ligand CD70, and plays a key role in regulating B-cell activation and immunoglobulin synthesis. And this receptor transduces signals that lead to the activation of NF-kappaB and MAPK8/JNK. Adaptor proteins TRAF2 and TRAF5 have been shown to mediate the signaling process of this receptor. CD27-binding protein (SIVA), a proapoptotic protein, can bind to this receptor and is thought to play an important role in the apoptosis induced by this receptor.

Images



Western blot analysis of CD27 expression in HELA whole cell lysates (lane 1). CD27 at 51KD was detected using rabbit anti- CD27 Antigen Affinity purified polyclonal antibody (Catalog # ABO12616) at 0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .

CD27 was detected in paraffin-embedded sections of human tonsil tissues using rabbit anti- CD27 Antigen Affinity purified polyclonal antibody (Catalog # ABO12616) at 1 □¼g/mL. The immunohistochemical section was developed using SABC method .



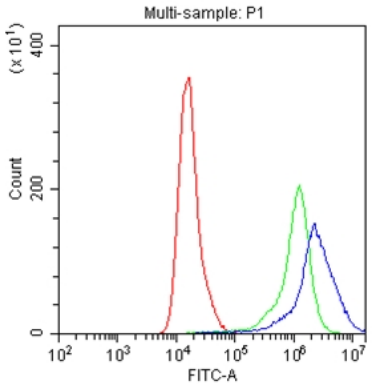


Figure 3. Flow Cytometry analysis of A549 cells using anti-CD27 antibody (ABO12616).Overlay histogram showing A549 cells stained with ABO12616 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD27 Antibody (ABO12616,1 □¼g/1x106 cells) for 30 min at 20 □°C. DyLight?488 conjugated goat anti-rabbit IgG (BA1127, 5-10 □¼g/1x106 cells) was used as secondary antibody for 30 minutes at 20 □°C. Isotype control antibody (Green line) was rabbit IgG (1 □¼g/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.