

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD27 in Western blots. In Western blots, less than 2% cross-reactivity with recombinant human (rh) sTNF RI and rhTNF RII (under reducing conditions) is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human CD27 Thr21-Ile192 Accession # P26842
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

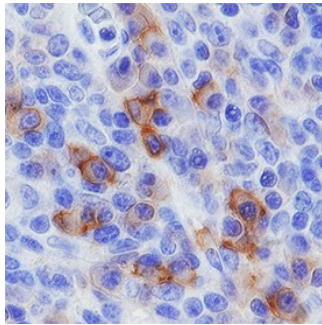
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human CD27/TNFRSF7 Fc Chimera (Catalog # 382-CD)
Flow Cytometry	2.5 µg/10 ⁶ cells	Human whole blood lymphocytes
Immunohistochemistry	3-15 µg/mL	See Below

DATA

Immunohistochemistry



CD27/TNFRSF7 in Human Tonsil.
CD27/TNFRSF7 was detected in immersion fixed paraffin-embedded sections of human tonsil using Goat Anti-Human CD27/TNFRSF7 Biotinylated Antigen Affinity-purified Polyclonal Antibody (Catalog # BAF382) at 3 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to lymphocytes in germinal center. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Human CD27 is a lymphocyte-specific member of the TNF receptor superfamily. CD27 is expressed on a subset of human thymocytes and on the majority of mature T cells. CD27 expression is up-regulated after TCR stimulation. Within the CD4⁺ compartment, it is preferentially expressed on CD45RA⁺ cells. In contrast, it is preferentially expressed on CD45RO⁺ cells in the CD8⁺ compartment. CD27 also appears to be a potential marker for memory B cells. It exists as both a disulfide-linked dimer on the cell surface and as a soluble protein found in serum. Human CD27 is a 260 amino acid (aa) protein with a 20 aa signal, a 173 aa extracellular domain, a 20 aa transmembrane domain, and a 47 aa cytoplasmic domain. The ligand for CD27 is CD70. CD70 is expressed on thymic stromal cells and a small subset of activated T cells. Additionally a subset of activated B cells express CD70. The CD27/CD70 interaction appears to be a weak costimulatory pathway involved in T cell and B cell immune response. CD27/CD70 interactions may be more involved in controlling the expansion phase of an immune response. This would be in contrast to B7/CD28 interactions, which are important for the activation phase of immune responses.

References:

1. Camerini, D. *et al.* (1991) *J. Immunol.* **147**:3165.
2. Loenen, W.A. *et al.* (1992) *J. Immunol.* **149**:3937.
3. Lens, S.M.A. *et al.* (1998) *Sem. Immunol.* **10**:491.