

DESCRIPTION

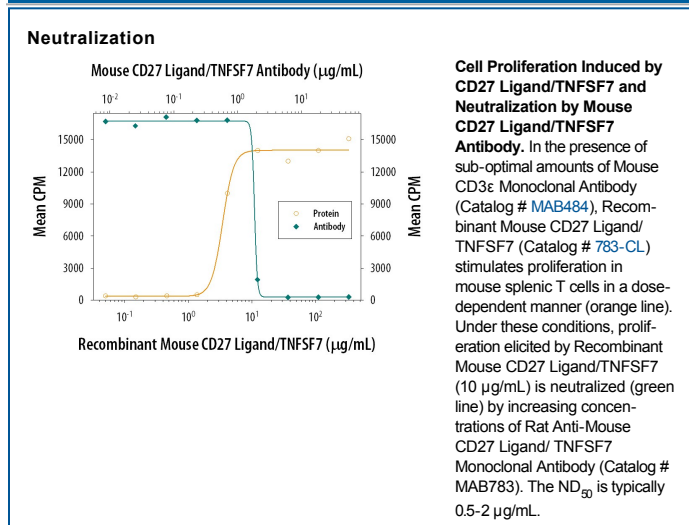
Species Reactivity	Mouse
Specificity	Detects mouse CD27 Ligand/TNFSF7 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) CD30 Ligand or rhCD40 Ligand is observed.
Source	Monoclonal Rat IgG ₁ Clone # 118510
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse CD27 Ligand/TNFSF7 Gln47-Pro195 Accession # O55237
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

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.

Mouse CD27 Ligand/TNFSF7 Sandwich Immunoassay	Reagent
ELISA Capture	2-8 µg/mL Mouse CD27 Ligand/TNFSF7 Antibody (Catalog # MAB783)
ELISA Detection Standard	0.1-0.4 µg/mL Mouse CD27 Ligand/TNFSF7 Biotinylated Antibody (Catalog # BAF783) Recombinant Mouse CD27 Ligand/TNFSF7 (Catalog # 783-CL)
Neutralization	Measured by its ability to neutralize CD27 Ligand/TNFSF7-induced proliferation in mouse splenic T cells. The Neutralization Dose (ND ₅₀) is typically 0.5-2 µg/mL in the presence of 10 µg/mL Recombinant Mouse CD27 Ligand/TNFSF7 and sub-optimal amounts of Mouse CD3ε Monoclonal Antibody.

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
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

CD27 ligand (CD27L), also named CD70, is a type II transmembrane glycoprotein belonging to the TNF superfamily (TNFSF) and has been designated TNFSF7 (1, 2). Mouse CD27L cDNA encodes a 195 amino acid (aa) residue protein with a 23 aa N-terminal cytoplasmic domain, a 21 transmembrane domain and a 151 aa C-terminal extracellular domain. Mouse and human CD27L share approximated 56% aa sequence identity. By analogy to other TNFSF ligands, CD27L is expected to exist as non-covalent homotrimers. The expression of CD27L is highly regulated at the transcription and posttranslational level (3). CD27L cell surface expression is induced by antigen receptor activation in B cells and at low levels in mouse T cells. Although CD27L expression is not detected on human dendritic cells (DC), membrane expression on mature mouse DCs has been reported. CD27L expression is also present in the thymus medulla in both human and mouse. CD27L interacts with CD27, a member of the TNF receptor superfamily that is expressed on natural killer (NK) cells and subsets of T and B cells (2, 4, 5). Ligation of CD27 on T cells provides costimulatory signals that are required for T cell proliferation, clonal expansion and the promotion of effector T cell formation (2). Ligation of CD27 on mouse B cell has been shown to inhibit terminal differentiation of activated B cells into plasma cells and enhances commitment to memory B cell responses (5, 6). On NK cells, ligation of CD27 induces proliferation and IFN- γ production (4).

References:

1. Hitzgen, R.Q. *et al.* (1994) *Immunol. Today* **15**:307.
2. Croft, M. (2003) *Nature Reviews Immunol.* **3**:609.
3. Tesselaar, K. *et al.* (2003) *J. Immunol.* **169**:33.
4. Takeda, K. *et al.* (2000) *J. Immunol.* **164**:1741.
5. Kobata, T.S. *et al.* (1995) *Proc. Natl. Acad. Sci. USA* **92**:11249.
6. Raman, V.S. *et al.* (2003) *J. Immunol.* **171**:5876.