

Product Information

Anti-CD27

produced in goat, affinity isolated antibody

Catalog Number **C8974**

Product Description

Anti-CD27 is produced in goat using a purified recombinant human CD27 (rhCD27), extracellular domain, expressed in an insect cell line Sf21, as immunogen. The antibody is purified using human CD27 affinity chromatography.

Anti-CD27 recognizes recombinant human CD27 by immunoblotting and neutralization. By immunoblotting, the antibody does not cross react with recombinant human CD30, recombinant human NGF R, recombinant human soluble TNF RI, and recombinant human soluble TNF RII.

Anti-Human CD27 may be used in immunoblotting, neutralization and flow cytometry assays.

CD27 (50 kDa) is a member of the tumor necrosis factor (TNF) receptor superfamily. CD40 and CD30 are also members of the TNF receptor superfamily. The TNF superfamily members are known for the regulation of cell proliferation and death. In contrast to the expression of other TNFR/TNF family members, expression of CD27 and its ligand CD70 is predominantly confined to lymphocytes. High expression levels of CD27 appear to be dependent on proper ligation of antigen receptors. CD70 expression requires additional co-stimulatory and/or pro-inflammatory signals. CD27 is a membrane-bound receptor, but a soluble form of CD27 is also produced. Soluble CD27 is found in body fluids and can be used to monitor local and systemic immune activation. In addition, elevated serum concentrations of soluble CD27 are found in patients with B cell malignancies and soluble CD27 levels strongly correlate with tumor load.

Reagents

Supplied lyophilized from a 0.2 µm filtered solution of phosphate buffered saline with 5% trehalose.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

To one vial of lyophilized powder, add 0.5 ml of 0.2 µm-filtered PBS to produce a 0.2 mg/ml stock solution of antibody. If aseptic technique is used, no further filtration should be needed for use in cell culture environments

Storage/Stability

Prior to reconstitution, store at -20 °C. Reconstituted product may be stored at 2-8 °C for at least one month. For prolonged storage, freeze in working aliquots at -20 °C. Avoid repeated freezing and thawing

Product Profile

Neutralization: the neutralization dose (ND₅₀) is typically 2.25 – 9.0 µg/mL in the presence of 3 µg/mL recombinant human CD27/TNFRSF7 Fc Chimera and 10 µg/mL recombinant mouse CD27 Ligand/TNFSF7.

Indirect immunoblotting: a working concentration of 0.1-0.2 µg/ml is determined using human CD27 at 5ng/lane and 20ng/lane under non-reducing and reducing conditions, respectively.

Indirect flow cytometry: a working concentration of 2.5 µg/10⁶ cells using the appropriate secondary reagent is determined for indirect immunofluorescence staining of T-lymphocytes.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working dilutions by titration test.

Endotoxin level is < 0.1 EU per 1 µg antibody as determined by the LAL method.

References

1. Hintzen, R.Q., et al., Characterization of the human CD27 ligand, a novel member of the TNF gene family. *J. Immunol.*, **152**,1762-1773 (1994).
2. Lens, S.M., et al., Control of lymphocyte function through CD27-CD70 interactions. *Semin. Immunol.*, **10**, 491-499 (1998).

3. Erlichman, B., and Howard, O.M., CD27 signals through PKC in human B cell lymphomas. *Cytokine*. **11**, 476-484 (1999).

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