

## CD27/TNFRSF7 Protein, Human, Recombinant (rFc)

### General Information

Synonyms:	T14;S152.LPFS2;S152;Tp55;TNFRSF7;S152.LPFS2;CD27 molecule
Protein Construction:	A DNA sequence encoding the human CD27 (P26842) (Met1-Ile192) was expressed, fused with the Fc region of rabbit IgG at the C-terminus. Predicted N terminal: Ala 20
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P26842
Molecular Weight:	44.4 kDa (predicted); 63 kDa (reducing conditions)

### QC Testing

Biological Activity:	Measured by its binding ability in a functional ELISA. Immobilized human CD27-his at 10 µg/mL (100 µl/well) can bind biotinylated human CD70-Fc, The EC50 of biotinylated human CD70-Fc is 95-150 ng/mL.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

### Preparation and Storage

**Reconstitution:**  
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

**Stability & Storage:**

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

**Shipping:**

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

CD27, also known as TNFRSF7, is a member of the TNF-receptor superfamily limited to cells of the lymphoid lineage, and exists as both a dimeric glycoprotein on the cell surface and as a soluble protein in serum. As a type I transmembrane glycoprotein of about 55 kDa existing as disulfide-linked homodimer, CD27 has been shown to play roles in lymphoid proliferation, differentiation, and apoptosis. It has an important role in the generation of T

cell immunity and is an robust marker for normal memory B cells. It is a T and B cell co-stimulatory molecule, the activity of CD27 is governed by its TNF-like ligand CD70 on lymphocytes and dendritic cells. The CD27-CD70 interaction is required for Th1 generation responses to differentiation signals and long-term maintenance of T cell immunity, and meanwhile, plays a key role in regulating B-cell differentiation, activation and immunoglobulin synthesis. Cancer Immunotherapy Co-stimulatory Immune Checkpoint Targets Immune Checkpoint Immune Checkpoint Detection: Antibodies Immune Checkpoint Detection: ELISA Antibodies Immune Checkpoint Detection: FCM Antibodies Immune Checkpoint Detection: ICC Antibodies Immune Checkpoint Detection: IHC Antibodies Immune Checkpoint Proteins Immune Checkpoint Targets Immunotherapy Targeted Therapy

### Reference

- Drner T, et al. (2004) Correlation of circulating CD27 high plasma cells and disease activity in systemic lupus erythematosus. *Lupus*. 13(5): 283-9.
- Sahota SS, et al. (2009) CD27 in defining memory B-cell origins in Waldenström's macroglobulinemia. *Clin Lymphoma Myeloma*. 9(1): 33-5.
- Jiang J, et al. (2010) Reduced CD27 expression on antigen-specific CD4+ T cells correlates with persistent active tuberculosis. *J Clin Immunol*. 30(4): 566-73.

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