

## CD70 Trimer Protein, Human (Biotinylated, HEK293, His)

<b>Cat. No.:</b>	HY-P78103
<b>Synonyms:</b>	CD70 molecule; CD70; TNFSF7; CD27 Ligand; CD27-L; CD27LG; Ki-24 antigen; TNFSF7G
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	P32970 (L50-P193)
<b>Gene ID:</b>	970
<b>Molecular Weight:</b>	62-70 kDa

### PROPERTIES

<b>Biological Activity</b>	Immobilized Human CD27, hFc Tag at 1µg/ml (100µl/Well) on the plate. Dose response curve for Biotinylated Human CD27 Ligand (Trimer) , His Tag with the EC <sub>50</sub> of 9.2ng/ml determined by ELISA.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

#### Background

CD70 (CD27 Ligand) belongs to the tumor necrosis factor (TNF) family, is the ligand for TNFRSF27/CD27<sup>[1]</sup>. CD70 and CD27 are homotrimer type II and homodimer type I transmembrane glycoprotein, expressing on activated and resting T and B lymphocytes, respectively<sup>[3][4]</sup>. As for a widely use of CD70 in animal disease model, the sequence of amino acids in human is very different from mouse (56.25%) and rat (55.79%).

CD70 as one of the most frequently mutated genes in a series of diffuse large B cell lymphomas, especially acts in a crucial Epstein-Barr virus (EBV)-specific T cell immunity and more generally for the immune surveillance of B cells. CD70 inhibits EBV infection by restoring the expansion of EBV-specific T lymphocytes stimulated by the CD70-deficient EBV-infected B cells<sup>[3]</sup>.

CD70 involves in activation of innate and adaptive immunity, expressing in the mature dendritic cells and being up-regulated upon the triggering of CD40 or Toll-like receptors<sup>[2]</sup>.

CD70 induces proliferation of costimulated T cells, enhances the generation of cytolytic T cells, and contributes to T cell activation<sup>[4]</sup>.

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CD70 is also reported to play a role in regulating B-cell activation, cytotoxic function of natural killer cells, and immunoglobulin synthesis<sup>[5]</sup>. targeting CD70 positive tumors with CAR-T cells induces a potent antitumor response<sup>[6]</sup>.

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## REFERENCES

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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