

## Product datasheet for **TP300410M**

### CD70 (NM\_001252) Human Recombinant Protein

#### Product data:

**Product Type:** Recombinant Proteins

**Description:** Recombinant protein of human CD70 molecule (CD70), 100 µg

**Species:** Human

**Expression Host:** HEK293T

**Expression cDNA Clone or AA Sequence:** >RC200410 protein sequence  
Red=Cloning site Green=Tags(s)

MPEEGSGCSVRRRPYGCVLRAALVPLVAGLVICLVCIQRFAQAQQQLPLESLGWDVAELQLNHTGPQQD  
PRLYWQGGPALGRSFLHGPPELDKQQLRIHRDGIYMVHIQVTLAICSSTTASRHHPPTTLAVGICSPASRSI  
SLLRSLFHQGCTIASQRLTPLARGDTLCTNLGTLLPSRNTDETFFGVQWVRP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Tag:** C-Myc/DDK

**Predicted MW:** 20.9 kDa

**Concentration:** >0.05 µg/µL as determined by microplate BCA method

**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

**Bioactivity:** In vitro binding assay (PMID: [25730144](#))

**Preparation:** Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.

**Note:** For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.

**Storage:** Store at -80°C.

**Stability:** Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

**RefSeq:** [NP\\_001243](#)

**Locus ID:** 970

**UniProt ID:** [P32970](#), [A0A0U5JA32](#)



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RefSeq Size: 913

Cytogenetics: 19p13.3

RefSeq ORF: 579

Synonyms: CD27-L; CD27L; CD27LG; LPFS3; TNFSF7; TNLG8A

**Summary:** The protein encoded by this gene is a cytokine that belongs to the tumor necrosis factor (TNF) ligand family. This cytokine is a ligand for TNFRSF27/CD27. It is a surface antigen on activated, but not on resting, T and B lymphocytes. It induces proliferation of costimulated T cells, enhances the generation of cytolytic T cells, and contributes to T cell activation. This cytokine is also reported to play a role in regulating B-cell activation, cytotoxic function of natural killer cells, and immunoglobulin synthesis. [provided by RefSeq, Jul 2008]

**Protein Families:** ES Cell Differentiation/IPS, Transmembrane

**Protein Pathways:** Cytokine-cytokine receptor interaction

### Product images:

Antibody	IgG			DuetMab		
	$K_{on}$ ( $M^{-1} s^{-1}$ )	$K_{off}$ ( $s^{-1}$ )	$K_D$ (nM)	$K_{on}$ ( $M^{-1} s^{-1}$ )	$K_{off}$ ( $s^{-1}$ )	$K_D$ (nM)
Parental (against CD70) <sup>a</sup>	$2.2 \times 10^5$	$5.1 \times 10^{-3}$	23	$2.0 \times 10^5$	$4.9 \times 10^{-3}$	25
Parental (against CD4) <sup>b</sup>	$2.1 \times 10^5$	$1.8 \times 10^{-4}$	0.8	$2.8 \times 10^5$	$2.6 \times 10^{-4}$	0.9
V <sub>K</sub> Y94A <sup>b</sup>	$2.2 \times 10^5$	$3.1 \times 10^{-4}$	1.4	ND	ND	ND
V <sub>K</sub> S93A <sup>b</sup>	$2.2 \times 10^5$	$3.6 \times 10^{-4}$	1.6	ND	ND	ND
V <sub>H</sub> D97A <sup>b</sup>	$1.6 \times 10^5$	$6.4 \times 10^{-4}$	4.1	ND	ND	ND
V <sub>K</sub> Y92A <sup>b</sup>	$1.2 \times 10^5$	$1.8 \times 10^{-3}$	15	$2.0 \times 10^5$	$1.9 \times 10^{-3}$	10
V <sub>K</sub> Y91A <sup>b</sup>	$1.7 \times 10^5$	$4.2 \times 10^{-3}$	25	$2.8 \times 10^5$	$4.7 \times 10^{-3}$	17
V <sub>K</sub> R95A <sup>b</sup>	$3.0 \times 10^5$	$1.6 \times 10^{-2}$	55	$5.4 \times 10^5$	$2.3 \times 10^{-2}$	42
V <sub>K</sub> R95A+V <sub>H</sub> D97A <sup>b</sup>	$2.7 \times 10^5$	$1.8 \times 10^{-2}$	65	$5.6 \times 10^5$	$3.5 \times 10^{-2}$	63
V <sub>H</sub> Y99A <sup>b</sup>	$2.8 \times 10^5$	$2.0 \times 10^{-2}$	72	ND	ND	ND
V <sub>K</sub> S93A+V <sub>H</sub> Y99A <sup>b</sup>	$2.7 \times 10^5$	$2.0 \times 10^{-2}$	74	ND	ND	ND
V <sub>K</sub> Y94A+V <sub>H</sub> Y99A <sup>b</sup>	$2.7 \times 10^5$	$2.1 \times 10^{-2}$	77	$5.2 \times 10^5$	$3.6 \times 10^{-2}$	70
V <sub>K</sub> Y92A+V <sub>H</sub> Y99A <sup>b</sup>	ND	ND	ND <sup>c</sup>	ND	ND	ND
V <sub>K</sub> Y91A+V <sub>H</sub> Y99A <sup>b</sup>	ND	ND	ND <sup>c</sup>	ND	ND	ND
V <sub>K</sub> R95A+V <sub>H</sub> Y99A <sup>b</sup>	ND	ND	ND <sup>c</sup>	ND	ND	ND

Kinetic measurements to soluble monomeric forms of CD4 and CD70 were carried out using an Octet384 instrument. The dissociation constants,  $K_D$ , were calculated as the ratio of  $K_{off}/K_{on}$  from a non-linear fit of the data

<sup>a</sup> Binding measured against CD70

<sup>b</sup> Binding measured against CD4

<sup>c</sup> No measurable binding could be seen

ND: not determined

The binding affinity values of IgG and DuetMab with amino acid residue substitutions of the heavy chain and kappa light chain variable domains and their combinations of some of the substitutions to CD4 and CD70 (OriGene [TP300410]), as measured using an Octet384 instrument. Figure cited from MAbs, PMID: 25730144



Coomassie blue staining of purified CD70 protein (Cat# [TP300410]). The protein was produced from HEK293T cells transfected with CD70 cDNA clone (Cat# [RC200410]) using MegaTran 2.0 (Cat# [TT210002]).