

Product datasheet for TP300410

OriGene Technologies, Inc.

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CD70 (NM_001252) Human Recombinant Protein

Product data:

Product Type: Recombinant Proteins

Description: Recombinant protein of human CD70 molecule (CD70), 20 μg

Species: Human
Expression Host: HEK293T

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

MPEEGSGCSVRRRPYGCVLRAALVPLVAGLVICLVVCIQRFAQAQQQLPLESLGWDVAELQLNHTGPQQD PRLYWQGGPALGRSFLHGPELDKGQLRIHRDGIYMVHIQVTLAICSSTTASRHHPTTLAVGICSPASRSI

SLLRLSFHQGCTIASQRLTPLARGDTLCTNLTGTLLPSRNTDETFFGVQWVRP

TRTRPLEQKLISEEDLAANDILDYKDDDDK**V**

Tag: C-Myc/DDK

Predicted MW: 20.9 kDa

Concentration: $>0.05 \mu g/\mu L$ 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: <u>25730144</u>)

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: <u>P32970</u>, <u>A0A0U5JA32</u>



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 sythesis. [provided by RefSeq, Jul 2008]

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

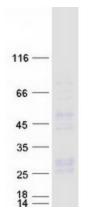
Protein Pathways: Cytokine-cytokine receptor interaction

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) ^a	2.2×10^{5}	5.1×10^{-3}	23	2.0×10^{5}	4.9×10^{-3}	25
Parental (against CD4) ^b	2.1×10^{5}	1.8×10^{-4}	0.8	2.8×10^{5}	2.6×10^{-4}	0.9
VĸY94A ^b	2.2×10^{5}	3.1×10^{-4}	1.4	ND	ND	
VĸS93A ^b	2.2×10^{5}	3.6×10^{-4}	1.6	ND	ND	
V _H D97A ^b	1.6×10^{5}	6.4×10^{-4}	4.1	ND	ND	
VĸY92A ^b	1.2×10^{5}	1.8×10^{-3}	15	2.0×10^{5}	1.9×10^{-3}	10
VĸY91A ^b	1.7×10^{5}	4.2×10^{-3}	25	2.8×10^{5}	4.7×10^{-3}	17
VkR95A ^b	3.0×10^{5}	1.6×10^{-2}	55	5.4×10^{5}	2.3×10^{-2}	42
VkR95A+V _H D97A ^b	2.7×10^{5}	1.8×10^{-2}	65	5.6×10^{5}	3.5×10^{-2}	63
V _H Y99A ^b	2.8×10^{5}	2.0×10^{-2}	72	ND	ND	
VkS93A+V _H Y99A ^b	2.7×10^{5}	2.0×10^{-2}	74	ND	ND	
VkY94A+V _H Y99A ^b	2.7×10^{5}	2.1×10^{-2}	77	5.2×10^{5}	3.6×10^{-2}	70
VkY92A+V _H Y99A ^b	ND	ND	NDc	ND	ND	
VkY91A+V _H Y99A ^b	ND	ND	NDc	ND	ND	
VkR95A+V _H Y99A ^b	ND	ND	NDc	ND	ND	

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

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 koff/kon from a non-linear fit of the data



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]).

Binding measured against CD70 Binding measured against CD4

^c No measurable binding could be seen ND: not determined