Recombinant Human CD86 protein, Fc-tagged

Cat. No. CD86-133H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CD86 protein (Leu26-Pro247), fused to human IgG1 Fc tag at C-terminus, was expressed in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	222
Description	Cluster of Differentiation 86 (CD86) is also known as B-lymphocyte activation antigen B7-2, is a type I membrane protein that is a member of the immunoglobulin superfamily, and is constitutively expressed on interdigitating dendritic cells, Langerhans cells, peripheral blood dendritic cells, memory B cells, and germinal center B cells. Additionally, B72 is expressed at low levels on monocytes and can be upregulated through interferon γ. CD86 is the ligand for two different proteins on the T cell surface: CD28 (for autoregulation and intercellular association) and CTLA-4 (for attenuation of regulation and cellular disassociation). CD86 works in tandem with CD80 to prime T cells. Recent study has revealed that B7-2 promotes the generation of a mature APC repertoire and promotes APC function and survival. Furthermore, the B7 proteins are also involved in innate immune responses by activating NF-κB-signaling pathway in macrophages. CD86 thus is regarded as a promising candidate for immune therapy. CD86+ macrophages in Hodgkin lymphoma patients are an independent marker for potential nonresponse to firstline-therapy.

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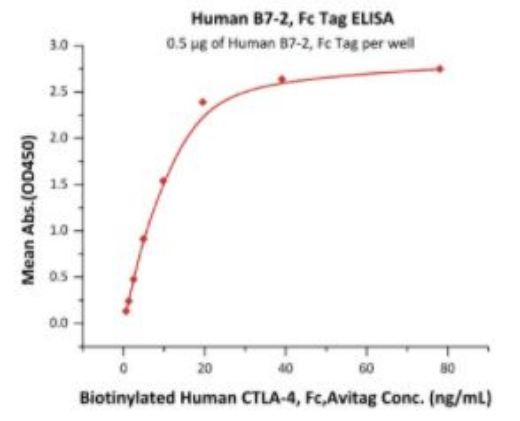
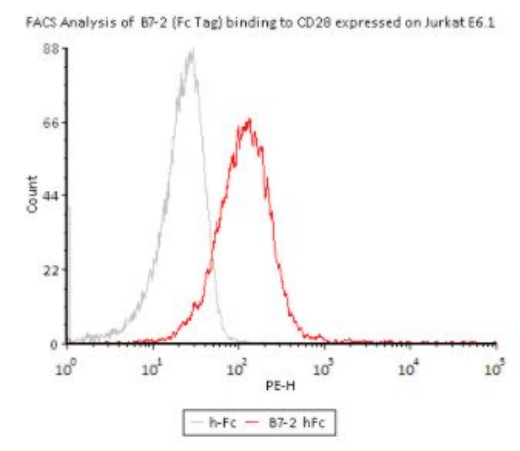
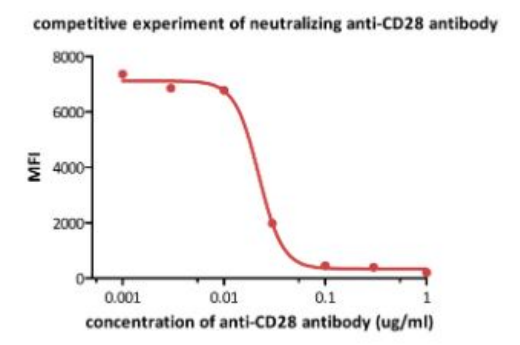
Form	Lyophilized from 0.22 um filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5, 10% trehalose.
Molecular Mass	The protein has a calculated MW of 51.5 kDa. As a result of glycosylation, the protein migrates as 66-86 kDa under reducing (R) condition, and 120-140 kDa under non-reducing (NR) condition (SDS-PAGE).
Endotoxin	Less than 1.0 EU per ug by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. This product is stable after storage at: -20 centigrade to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4℃ before opening to recover the entire contents.

GENE INFORMATION

Gene Name	CD86
Official Symbol	CD86
Synonyms	CD86; CD86 molecule; CD28LG2, CD86 antigen (CD28 antigen ligand 2, B7 2 antigen); T-lymphocyte activation antigen CD86; B lymphocyte antigen B7 2; B7 2; B7.2; BU63; FUN-1; CTLA-4 counter-receptor B7.2; B-lymphocyte activation antigen B7-2; CD86 antigen (CD28 antigen ligand 2, B7-2 antigen); B70; B7-2; LAB72;

	CD28LG2; MGC34413
Gene ID	942
mRNA Refseq	NM_001206924
Protein Refseq	NP_001193853
MIM	601020
UniProt ID	P42081
Bioactivity-ELISA of CD86-133H	 Immobilized Human B7-2, Fc Tag at 5 μg/mL (100 μL/well) can bind Biotinylated Human CTLA-4, Fc Tag, Avi Tag with a linear range of 0.6-10 ng/mL (QC tested).

Bioactivity-FACS of CD86-133H	 Flow Cytometry assay shows that recombinant Human B7-2, Fc Tag can bind to CD28 expressed on Jurkat E6.1. The concentration of B7-2 used is 2 μg/ml(Routinely tested).
Bioactivity-FACS of CD86-133H	 FACS analysis shows that the binding of Human B7-2, Fc Tag to CD28 expressed on Jurkat E6.1 was inhibited by increasing concentration of neutralizing anti-CD28 antibody. The concentration of B7-2 used is 2 μg/ml. The IC50 is 0.022 μg/ml (Routinely tested).

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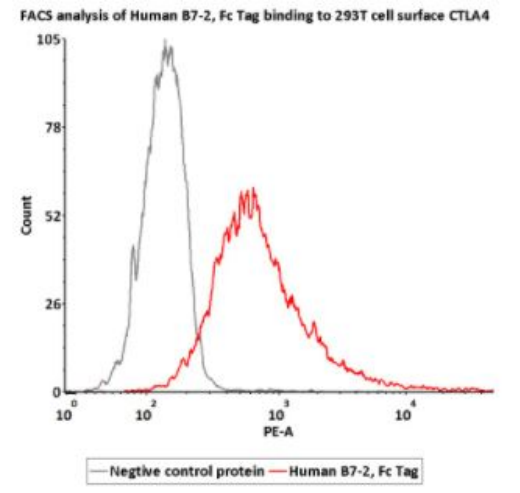
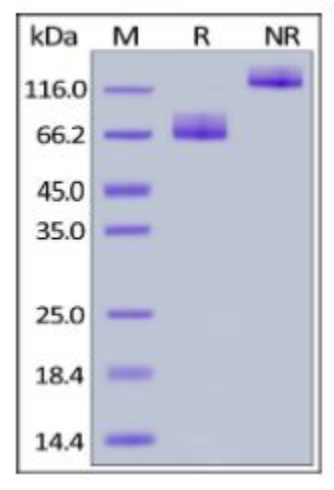
Bioactivity-FACS of CD86-133H



FACS assay shows that Human B7-2, Fc Tag can bind to 293T cells overexpressing human CTLA4 protein. The concentration of Human B7-2 is 3 μg/ml (Routinely tested).

SDS-PAGE of CD86-133H



Human B7-2, Fc Tag on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained overnight with Coomassie Blue. The purity of the

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	protein is greater than 95%.

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