

## Active Recombinant Monkey CD86 Protein, His-tagged

**Cat. No.** CD86-11012M    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| <b>Product Overview</b> | Cynomolgus/Rhesus macaque B7-2, His Tag (MALS verified) is expressed from human 293 cells (HEK293). It contains AA Ala 19 - His 240 (Accession # G7NXR4-1). In the region Ala 19 - His 240, the AA sequence of Cynomolgus and Rhesus macaque B7-2 are homologous. This protein carries a polyhistidine tag at the C-terminus. Predicted N-terminus: Ala 19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Species</b>          | Monkey                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>ProteinLength</b>    | 19-240 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>      | 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 $\gamma$ . 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- $\kappa$ B-signaling pathway in macrophages. CD86 thus is regarded as a promising candidate |

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|                       |                                                                                                                                                                                                                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | for immune therapy. CD86+ macrophages in Hodgkin lymphoma patients are an independent marker for potential nonresponse to firstline-therapy.                                                                                                                                                                                 |
| <b>Form</b>           | Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.                                                                                                                                                                                                                                       |
| <b>Bio-activity</b>   | Immobilized Cynomolgus/Rhesus macaque CTLA-4, Fc Tag at 5 µg/mL (100 µL/well) can bind Cynomolgus/Rhesus macaque B7-2, His Tag (HPLC-verified) with a linear range of 0.312-5 µg/mL.                                                                                                                                         |
| <b>Molecular Mass</b> | The protein has a calculated MW of 27.3 kDa. The protein migrates as 40-60 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.                                                                                                                                                                                 |
| <b>Endotoxin</b>      | Less than 1.0 EU/µg by the LAL method/rFC method.                                                                                                                                                                                                                                                                            |
| <b>Purity</b>         | >95% as determined by SDS-PAGE. >95% as determined by SEC-MALS.                                                                                                                                                                                                                                                              |
| <b>Storage</b>        | This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. |
| <b>Reconstitution</b> | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.                                                                                                                                       |

## GENE INFORMATION

|                        |                                              |
|------------------------|----------------------------------------------|
| <b>Gene Name</b>       | CD86 CD86 molecule [ <i>Macaca mulatta</i> ] |
| <b>Official Symbol</b> | CD86                                         |

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|                |                                                                         |
|----------------|-------------------------------------------------------------------------|
| Synonyms       | CD86; CD86 molecule; T-lymphocyte activation antigen CD86; CD86 antigen |
| Gene ID        | 714390                                                                  |
| mRNA Refseq    | NM_001042644                                                            |
| Protein Refseq | NP_001036109                                                            |
| UniProt ID     | G7NXR4                                                                  |

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