

CD83 Protein, Cynomolgus, Rhesus, Recombinant (hFc)

General Information

Synonyms:	CD83 molecule
Protein Construction:	A DNA sequence encoding the cynomolgus / rhesus CD83 (XP_005554049.1/NP_001248264.1) (Met1-Ala143) was expressed with the Fc region of human IgG1 at the C-terminus. Cynomolgus and Rhesus CD83 sequences are identical. Predicted N terminal: Thr 20
Species:	Cynomolgus,Rhesus
Expression Host:	HEK293 Cells
Accession:	F6WX37
Molecular Weight:	41 kDa (predicted); 45-55 and 34 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

The cluster of differentiation (CD) system is commonly used as cell markers in Immunophenotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules associating with the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then

alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion. CD83 is considered as a marker of mature dendritic cells as well as an adhesion receptor that binds to resting monocytes and a subset of activated CD8+T cells. In certain conditions, CD83 tended to dimerize or even multimerize through its aberrant intermolecular disulfide bonds. The injection of CD83-Ig can significantly enhance the rate of tumor growth and inhibit the T cell growth.

Reference

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- Lechmann M, et al. (2002) CD83 on dendritic cells: more than just a marker for maturation. Trends in immunology. 23(6): 273-5.

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