Data Sheet (Cat.No.TMPK-00500)

TargetMol

CD83 Protein, Cynomolgus, Recombinant (His)

General Information

Synonyms:	CD83;HB15;CD83 molecule;BL11
Protein Construction:	Thr20-Glu147
Species:	Cynomolgus
Expression Host:	HEK293 Cells
Accession:	A0A2K5US85
Molecular Weight:	15.43 kDa (predicted). Due to glycosylation, the protein migrates to 25-40 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Immobilized Cynomolgus CD83, His Tag at 0.5μg/ml (100μl/well) on the plate. Dose response curve for Biotinylated Anti- CD83 Antibody, hFc Tag with the EC50 of 5.7ng/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
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, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

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

CD83 is a member of the immunoglobulin (Ig) superfamily and is expressed in membrane bound or soluble forms. Membrane CD83 (mCD83) can be detected on a variety of activated immune cells, although it is most highly and stably expressed by mature dendritic cells (DC). While CD83 is emerging as a promising immune modulator with therapeutic potential, some important aspects such as its ligand/s, intracellular signaling pathways and

modulators of its expression are unclear.

Reference

Li Z, et al. CD83: Activation Marker for Antigen Presenting Cells and Its Therapeutic Potential. Front Immunol. 2019 Jun 7;10:1312. doi: 10.3389/fimmu.2019.01312. PMID: 31231400; PMCID: PMC6568190.

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