Data Sheet (Cat.No.TMPK-00882)

TargetMol

B7-2/CD86 Protein, Human, Recombinant (hFc)

General Information

Synonyms:	B7-2;FUN-1;B7-2 antigen;CD86;LAB72;CD86 molecule;CD28LG2;B70;BU63;MGC34413;B72
Protein Construction:	Leu26-Pro247
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P42081-1
Molecular Weight:	52 kDa (predicted). Due to glycosylation, the protein migrates to 75-90 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Immobilized Human CTLA-4, His Tag at 5μg/ml (100μl/well) on the plate. Dose response curve for Human B7-2, hFc Tag with the EC50 of 125.7ng/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

B7-1 and B7-2 are homologous costimulatory ligands expressed on the surface of antigen presenting cells (APCs). Binding of these molecules to the T cell costimulatory receptors, CD28 and CTLA-4, is essential for the activation and regulation of T cell immunity. B7-1 and B7-2 do not form hetero-oligomers, underscoring the biological relevance of dimeric and monomeric state of B7-1 and B7-2, respectively.

Reference

Bhatia S, et al. B7-1 and B7-2: similar costimulatory ligands with different biochemical, oligomeric and signaling properties. Immunol Lett. 2006 Apr 15;104(1-2):70-5. doi: 10.1016/j.imlet.2005.11.019. Epub 2005 Dec 13. PMID: 16413062.

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