Data Sheet (Cat.No.TMPJ-00630)

B7-1 Protein, Cynomolgus, Recombinant (hFc)

General Information

Synonyms: B7;CD80;T-lymphocyte activation antigen CD80;Activation B7-1 antigen

Protein Construction: Val35-Asn242

Species: Cynomolgus

Expression Host: HEK293 Cells

Accession: G7NXN7

Molecular Weight: 70-90 KDa (reducing condition)

AA Sequence: Val35-Asn242

QC Testing

Biological Activity: Immobilized Cynomolgus CTLA-4, His Tag at 0.5 μg/ml (100 μl/well) on the plate. Dose response curve for Cynomolgus B7-1, hFc Tag with the EC50 of 12.3 ng/ml determined by ELISA. (QC Test)
Loaded Cynomolgus B7-1, hFc Tag on ProA-Biosensor can bind Cynomolgus CTLA-4, His Tag with an affinity constant of 3.48 nM as determined in BLI assay .

Purity: > 95% as determined by Bis-Tris PAGE, > 95% as determined by HPLC

Endotoxin: < 0.1 ng/μg (1 EU/μg) as determined by LAL test.

Formulation: Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant 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:

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

Cynomologous Cluster of Differentiation 80, also called B7-1, is a member of cell surface immunoglobulin superfamily.It is expressed on the surface of antigen-presenting cells including activated B cells, macrophages

and dendritic cells.CD80 plays key, yet distinct roles in the activation of T cells. B7-1/CD80 and B7-2/CD86, together with their receptors CD28 and CTLA4, constitute one of the dominant co-stimulatory pathways that regulate T- and B- cell responses. CD80 is mostly expressed on the surface of antigen-presenting cells including activated B cells, macrophages and dendritic cells. Although both CTLA-4 and CD28 can bind to the same ligands, CTLA-4 binds to B7-1 and B7-2 with a 20-100 fold higher affinity than CD28 and is involved in the down-regulation of the immune response. CD80 is thus regarded as promising therapeutic targets for autoimmune diseases and various carcinomas.