Data Sheet (Cat.No.TMPY-06622)

TargetMol

CD28 Protein, Human, Cynomolgus, Rhesus, Recombinant (His & Avi), Biotinylated

General Information

Synonyms: CD28 molecule

Protein Construction: A DNA sequence encoding the Human/Cynomolgus/Rhesus CD28 (P10747-1) (Met1-Pro152) was expressed with a C-terminal polyhistidine tag followed by an AVI tag. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed. Predicted N terminal: Asn 19

Species: Human,Cynomolgus,Rhesus

Expression Host: HEK293 Cells

Accession: P10747-1

Molecular Weight: 18.40 kDa (predicted); 41.73 kDa (reducing conditions)

QC Testing

Biological Activity: Immobilized Recombinant Mouse CD80 / B7-1 Protein (Fc Tag) at 2 μg/ml (100 μl/well) can bind Recombinant Human/Cynomolgus/Rhesus CD28 Protein(ECD,His&AVI Tag),Biotinylated, The EC50 is 800-2100 ng/mL.

Purity: > 95 % as determined by SDS-PAGE. > 95 % as determined by SEC-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, 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

CD28 (Cluster of Differentiation 28) is a disulphide-bonded glycoprotein belonging to the immunoglobulin (Ig) superfamily, and structurally consists of a single Ig V-like extracellular domain, a transmembrane domain and an

intracellular domain. Mouse CD28 is constitutively expressed on the surface of all murine T cells and on developing thymocytes as disulfide-linked homodimers or as monomers. CD28 can binds the B7-1 and B7-2 ligand, and together perform important functions in the T and B cell response pathways. B7/CD28 family members, which can augment or antagonize T-cell receptor signaling, in the regulation of central and peripheral T-cell tolerance. CD28 is thus involved in T-cell activation, the induction of cell proliferation and cytokine production and promotion of T-cell survival.Cancer ImmunotherapyCo-stimulatory Immune Checkpoint TargetsImmune CheckpointImmune Checkpoint Detection: AntibodiesImmune Checkpoint Detection: ELISA AntibodiesImmune Checkpoint Detection: FCM AntibodiesImmune Checkpoint Detection: IHC AntibodiesImmune Checkpoint Detection: WB AntibodiesImmune Checkpoint TargetsImmunotherapyTargeted Therapy

Reference

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Sansom DM,et al.(2006) The role of CD28 and cytotoxic T-lymphocyte antigen-4 (CTLA-4) in regulatory T-cell biology. Immunol Rev. 212: 131-48.
Bjrgo E,et al.(2010) Novel mechanism of signaling by CD28. Immunol Lett. 129(1): 1-6.

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