Data Sheet (Cat.No.TMPY-06770)

TargetMol

CD70 Protein, Mouse, Recombinant (His & Avi), Biotinylated

General Information

Synonyms:	CD27LG;Cd27l;Tnfsf7;CD70 molecule
Protein Construction:	A DNA sequence encoding the Mouse CD70 (NP_035747.1) (Gln47-Pro195) 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: Gln 47
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	NP_035747.1
Molecular Weight:	19.7 kDa (predicted); 26.44 kDa (reducing conditions)

QC Testing

Biological Activity:	Immobilized Recombinant Mouse CD27 / TNFRSF7 Protein (His Tag) at 2 μg/ml (100 μl/well) can bind Recombinant Mouse CD70 Protein (ECD, His & AVI Tag), Biotinylated , the EC50 is 1.2-4 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

CD70, a member of the tumor necrosis factor superfamily, is restricted to activated T-and B-lymphocytes and mature dendritic cells. Binding of CD70 to its receptor, CD27, is important in priming, effector functions,

differentiation and memory formation of T-cells as well as plasma and memory B-cell generation. Tight control of CD70 expression is required to prevent lethal immunodeficiency. By selective transcription, CD70 is largely confined to activated lymphocytes and dendritic cells (DC). As a type II transmembrane receptor, CD70 is normally expressed on a subset of B, T and NK cells, where it plays a costimulatory role in immune cell activation. Immunohistochemical analysis of CD70 expression in multiple carcinoma types. The restricted expression pattern of CD70 in normal tissues and its widespread expression in various malignancies makes it an attractive target for antibody-based therapeutics. Investigations to exploit CD70 as a cancer target have lead to the identification of potential antibody-based clinical candidates.Cancer ImmunotherapyCo-stimulatory Immune Checkpoint TargetsImmune CheckpointImmune Checkpoint ProteinsImmune Checkpoint TargetsImmunotherapyTargeted Therapy

Reference

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Grewal IS. (2008) CD70 as a therapeutic target in human malignancies. Expert Opin Ther Targets. 12(3): 341-51.
Boursalian TE, et al. (2009) Targeting CD70 for human therapeutic use. Adv Exp Med Biol. 647: 108-19.

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