Data Sheet (Cat.No.TMPY-05425)

TargetMol

CD40 Protein, Mouse, Recombinant (hFc)

General Information

Synonyms:	IGM;AI326936;TRAP;T-BAM;p50;IMD3;Tnfrsf5;HIGM1;GP39;Bp50;CD40 molecule, TNF receptor superfamily member 5
Protein Construction:	A DNA sequence encoding the mouse CD40 (NP_035741.2) (Met1-Arg193) was expressed with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Leu 20
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	P27512-1
Molecular Weight:	46.4 kDa (predicted)

QC Testing

Biological Activity:	1.Measured by its binding ability in a functional ELISA. Immobilized mCD40-Fc at 10 μg/mL (100 μL/well) can bind cynoCD40LG-Fc/Biotin. 2.Immobilized Recombinant Mouse CD40 Ligand Protein (ECD, His Tag) at 2 μg/mL (100 μL/well) can bind Recombinant Mouse CD40/TNFRSF5 Protein (Fc Tag), the EC50 is 6-25 ng/mL.
Purity:	> 90% as determined by SDS-PAGE.
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

CD40, also known as TNFRSF5, is a member of the TNF receptor superfamily which are single transmembrane-

spanning glycoproteins. CD40 protein plays an essential role in mediating a broad variety of immune and inflammatory responses including T cell-dependent immunoglobulin class switching, memory B cell development, and germinal center formation. CD40 protein is expressed in B cells, dendritic cells, macrophages, endothelial cells, and several tumor cell lines. Defects in CD40 result in hyper-IgM immunodeficiency type 3 (HIGM3). In addition, CD40/CD40L interaction is found to be necessary for amyloid-beta-induced microglial activation, and thus is thought to be an early event in Alzheimer disease pathogenesis.Cancer ImmunotherapyCo-stimulatory Immune Checkpoint TargetsImmune CheckpointImmune Checkpoint Detection: AntibodiesImmune Checkpoint Detection: ELISA AntibodiesImmune Checkpoint Detection: FCM AntibodiesImmune Checkpoint Detection: ICC AntibodiesImmune Checkpoint Detection: IP AntibodiesImmune Checkpoint Detection: WB AntibodiesImmune Checkpoint ProteinsImmune Checkpoint TargetsImmunotherapyTargeted Therapy

Reference

van Kooten C,et al.(2000). CD40-CD40 ligand. J Leukoc Biol. 67 (1): 2-17.

Bhushan A,et al.(2002). CD40:CD40L interactions in X-linked and non-X-linked hyper-IgM syndromes. Immunol Res. 24 (3): 311-24.

Chatzigeorgiou A,et al.(2009) CD40/CD40L signaling and its implication in health and disease. Biofactors. 35(6): 474-83.

Li R,et al.(2009) Expression of CD40 and CD40L in Gastric Cancer Tissue and Its Clinical Significance. Int J Mol Sci. 10 (9): 3900-17.

Lievens D,et al.(2009) The multi-functionality of CD40L and its receptor CD40 in atherosclerosis. Thromb Haemost. 102(2): 206-14.

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