# Data Sheet (Cat.No.TMPY-04089)

TargetMol

## CD40 Protein, Canine, Recombinant (His)

### General Information

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| Synonyms: | CD40 molecule, TNF receptor superfamily member 5 |
| Protein Construction: | Glu21-Ala194 |
| Species: | Canine |
| Expression Host: | HEK293 Cells |
| Accession: | Q7YRL5 |
| Molecular Weight: | 20.14 kDa (Predicted); 30-40 kDa (Due to glycosylation) |

### QC Testing

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| Biological Activity: | Immobilized Canine CD40, His Tag at 5 μg/ml (100 μl/well) on the plate. Dose response curve for Human CD40 Ligand (Trimer) , hFc Tag with the EC50 of 6.5 ng/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 0.22μm 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:

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 is a costimulatory protein found on antigen presenting cells and is required for their activation. The binding of CD154 (CD40L) on TH cells to CD40 activates antigen presenting cells and induces a variety of downstream effects.CD40 molecule is a potential target for cancer immunotherapy. There are number of completed and ongoing clinical trials where agonistic anti-CD40 monoclonal antibodies are employed to activate an anti-tumor T cell response via activation of dendritic cells.

Reference

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