CREATIVE BIOMART®
Immune Checkpoints

Recombinant Canine CD40LG protein, N-mFc Tag

Product Information

Cat	*IMP-431*
Official Symbol	*CD40LG*
Product Overview	*Recombinant Canine CD40LG protein (NP_000537.3) (Met112-Leu260) was expressed in HEK293, fused with the Fc region of mouse IgG1 at the N-terminus.*
Description	*The cluster of differentiation (CD) system is commonly used as cell markers in immunophenotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules which associating with the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion. CD154, also known as CD40 ligand or CD40L, is a member of the TNF superfamily. While CD154 was originally found on T cell surface, its expression has since been found on a wide variety of cells, including platelets, mast cells, macrophages and NK cells. CD154's ability is achieved through binding to the CD40 on antigen-presenting cells (APC). In the macrophage cells, the primary signal for activation is IFN-γ from Th1 type CD4 T cells. The secondary signal is CD40L on the T cell, which interacting with the CD40 molecules, helping increase the level of activation.*
Expression System	*HEK293*
Species	*Canine*
Tag	*N-mFc Tag*
Predicted N Terminal	*Asp*
Form	*Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.*
Molecular Mass	*The recombinant canine CD40LG is a disulfide-linked homodimer. The reduced monomer comprises 385 amino acids and has a predicted molecular mass of 42.5 kDa. The apparent molecular mass of the protein is approximately 47 kDa in SDS-PAGE under reducing conditions.*
Protein length	*Met112-Leu260*
Endotoxin	*< 1.0 EU per μg of the protein as determined by the LAL method*
Purity	*> 85 % as determined by SDS-PAGE*

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Storage	*Samples are stable for up to twelve months from date of receipt at -20°C to -80°C. Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.*
Reconstitution	*It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.*

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