Catalog # B74-C52H8



#### Synonym

B7-H4,VTCN1,B7S1,B7h.5

#### Source

Canine B7-H4, His Tag(B74-C52H8) is expressed from human 293 cells (HEK293). It contains AA Phe 29 - Ala 258 (Accession # <u>XP\_038547815.1</u>). Predicted N-terminus: Phe 29

# **Molecular Characterization**

B7-H4(Phe 29 - Ala 258) XP\_038547815.1 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 27.2 kDa. The protein migrates as 44-55 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per  $\mu$ g by the LAL method / rFC method.

## Purity

>90% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

#### Formulation

Lyophilized from 0.22  $\mu$ m filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

#### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

#### Storage

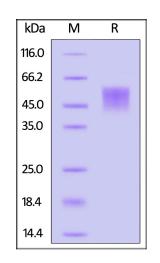
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

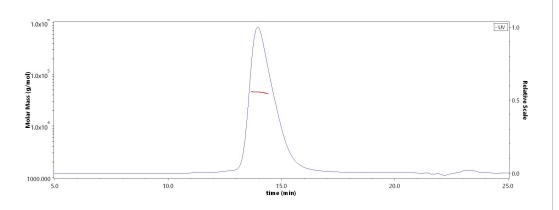
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



Canine B7-H4, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

# SEC-MALS



The purity of Canine B7-H4, His Tag (Cat. No. B74-C52H8) is more than 95% and the molecular weight of this protein is around 38-50 kDa verified by SEC-MALS.



**Bioactivity-ELISA** 



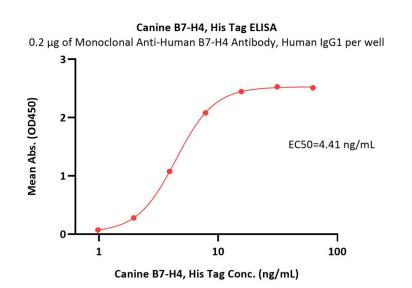


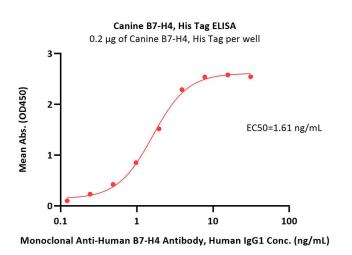


# Canine B7-H4 Protein, His Tag (MALS verified)

Catalog # B74-C52H8



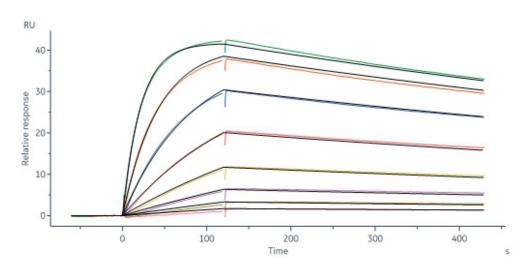




Immobilized Monoclonal Anti-Human B7-H4 Antibody, Human IgG1 at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Canine B7-H4, His Tag (Cat. No. B74-C52H8) with a linear range of 1-16 ng/mL (QC tested).

Immobilized Canine B7-H4, His Tag (Cat. No. B74-C52H8) at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Monoclonal Anti-Human B7-H4 Antibody, Human IgG1 with a linear range of 0.1-8 ng/mL (Routinely tested).

#### **Bioactivity-SPR**



Anti-B7-H4 antibody, Human IgG1 captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind Canine B7-H4, His Tag (Cat. No. B74-C52H8) with an affinity constant of 8.59 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

## Background

V-set domain-containing T-cell activation inhibitor 1 (VTCN1) is also known as Immune costimulatory protein B7-H4, Protein B7S1, T-cell costimulatory molecule B7x, B7H4, which belongs to the immunoglobulin superfamily and BTN/MOG family. VTCN1 contains two Ig-like V-type (immunoglobulin-like) domains. The expression of VTCN1 is up-regulated by IL6 and IL10 and is inhibited by GM-CSF and IL4 on antigen-presenting cells (APCs). VTCN1 / B7-H4 negatively regulates T-cell-mediated immune response by inhibiting T-cell activation, proliferation, cytokine production and development of cytotoxicity. VTCN1 involved in promoting epithelial cell transformation.



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