

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 # [XP_038547815.1](#)).

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 µg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm 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

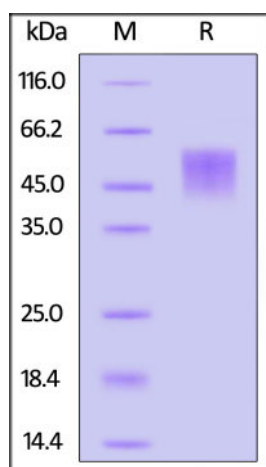
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

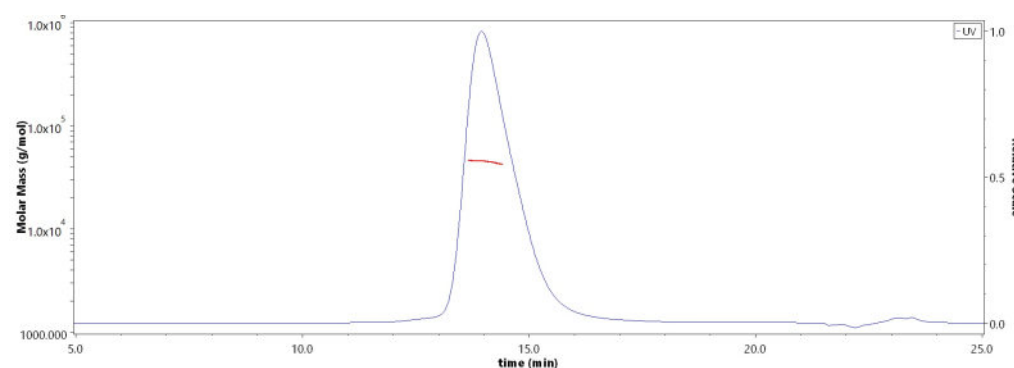
SDS-PAGE



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%.

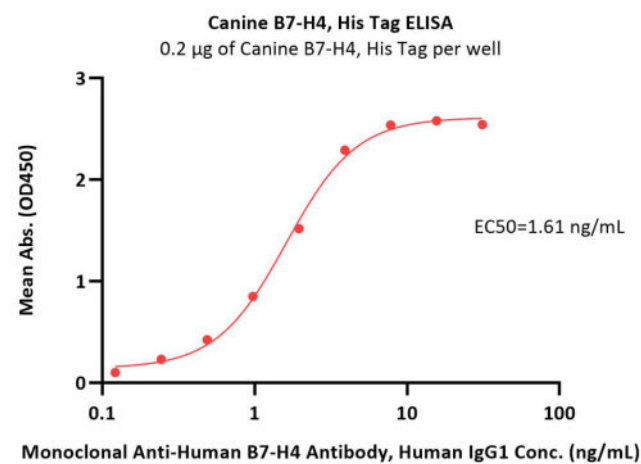
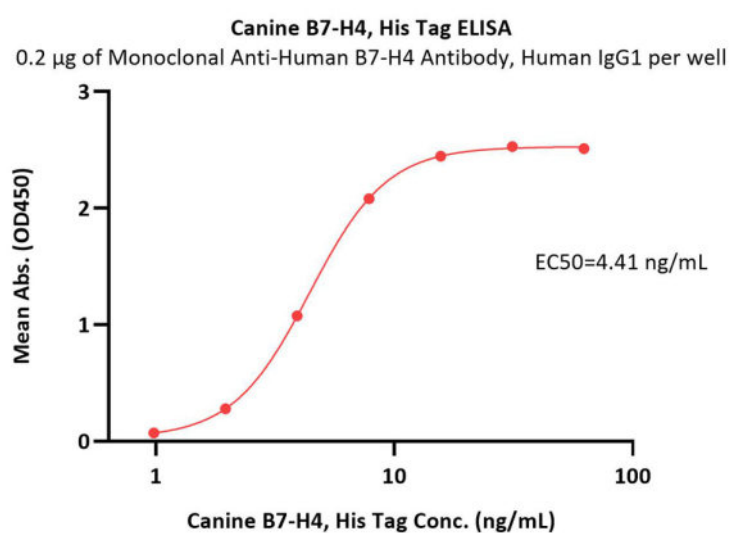
Bioactivity-ELISA

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.

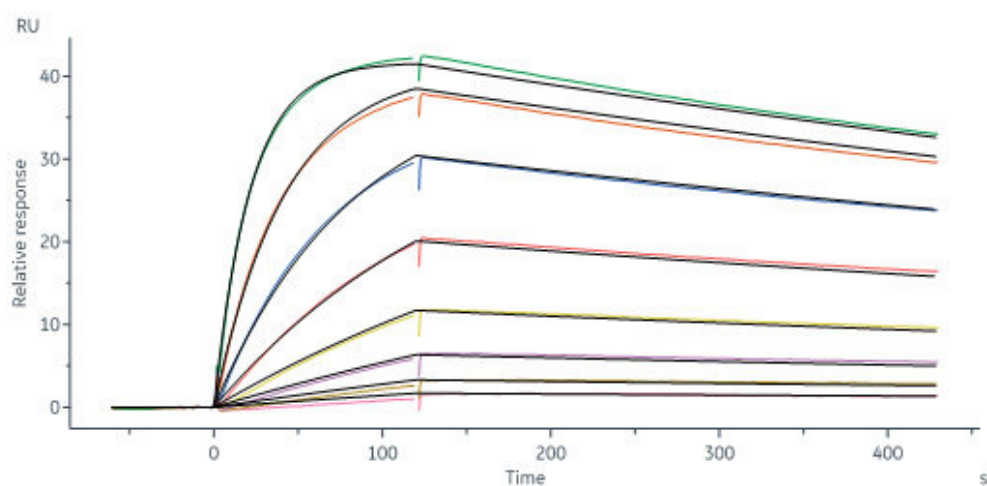
[Report](#)



Immobilized Monoclonal Anti-Human B7-H4 Antibody, Human IgG1 at 2 µg/mL (100 µL/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 µg/mL (100 µL/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.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.