

# Canine BMPR1A/ALK-3 Protein

Cat. No. ALK-DM201



## Description

<b>Source</b>	Recombinant Canine BMPR1A/ALK-3 Protein is expressed from HEK293 with hFc tag at the C-Terminus. It contains Gln24-Arg152.
<b>Accession</b>	NP_001138622.1
<b>Molecular Weight</b>	The protein has a predicted MW of 40.94 kDa. Due to glycosylation, the protein migrates to 50-65 kDa based on Tris-Bis PAGE result.
<b>Endotoxin</b>	Less than 1EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Tris-Bis PAGE > 95% as determined by HPLC

## Formulation and Storage

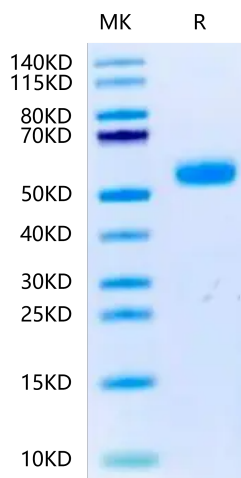
<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -20 to -80°C for 3-6 months in unopened state after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

The type IA bone morphogenetic protein receptor (Bmpr1a), encoded by 11 exons and spanning about 40 kb on chromosome 14 in mice and chromosome 10 in human (Derynck & Feng, 1997; Mishina, Hanks, Miura, Tallquist, & Behringer, 2002), is an essential receptor for BMP signaling.

## Assay Data

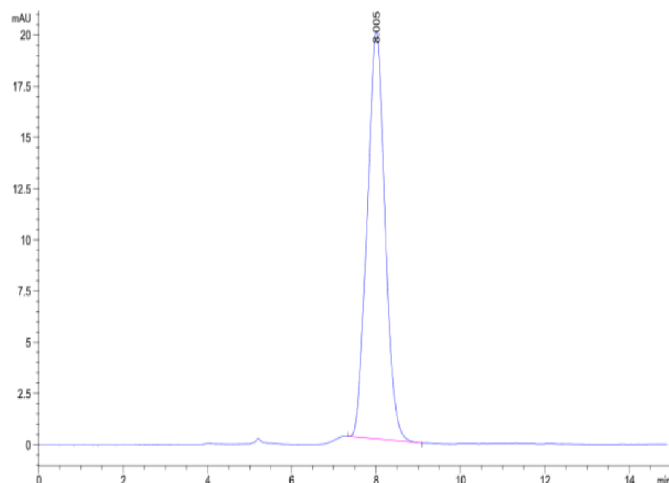
### Tris-Bis PAGE



Canine BMPR1A on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC

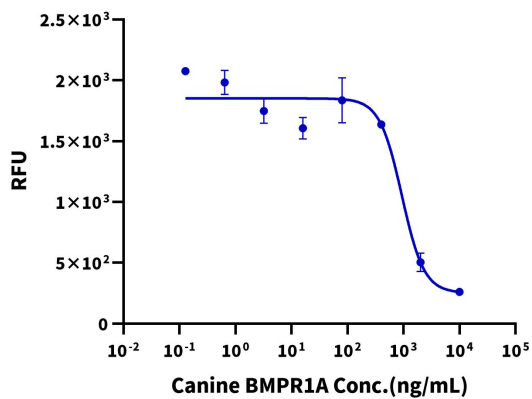
Assay Data



The purity of Canine BMPR1A is greater than 95% as determined by SEC-HPLC.

Cell Based Assay

Recombinant Canine BMPR1A Bioactivity



Measured by its ability to inhibit rhBMP4-induced alkaline phosphatase production by ATDC5 cells. The ED50 for this effect is typically 0.5 - 2.5 µg/mL in the presence of 50 ng/mL of recombinant human BMP4.