

ALK-1 Active Protein | ACVRL1 active protein

ALK-1 Protein, Canine, Recombinant (hFc Tag)

CATALOG #
AAA258252

HOST
HEK293 Cells

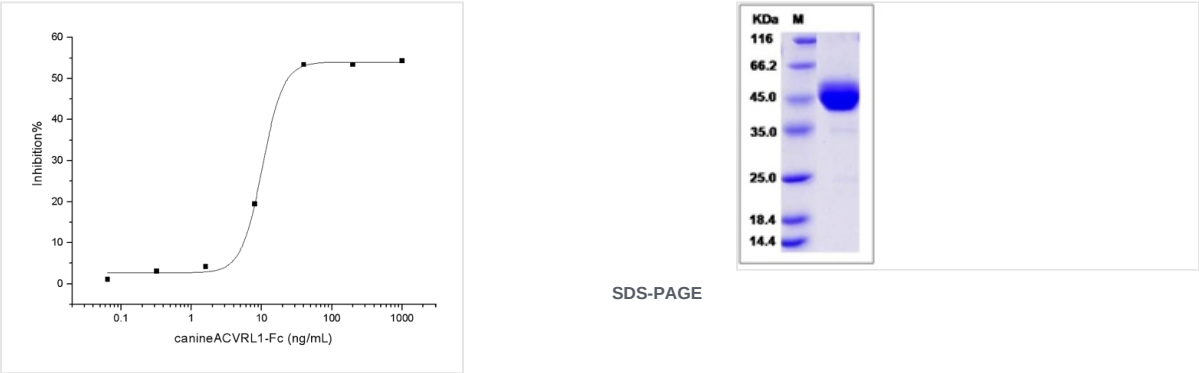
PRODUCT SYNONYMS

ALK-1; ALK-1 Protein; Canine; Recombinant (hFc Tag); Canine ALK1/ACVRL1 Protein (Fc Tag); activin A receptor type II-like 1; ACVRL1 active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>95% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Met1-Gln11 9
Species	Canine
Activity	Measured by its ability to inhibit BMP9-induced alkaline phosphatase production by MC3T3-E1 cells. The ED50 for this effect is typically 5-15ng/mL in the presence of 2ng/mL of recombinant human BMP-9.
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Gly 22
Tag	C-human IgG1-Fc
Protein Construction	A DNA sequence encoding the canine ACVRL1(E2R174)(Met1-Gln119) was expressed with the Fc region of human IgG1 at the C-terminus.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.

IMAGES



SDS-PAGE

Application Data
Measured by its ability to inhibit BMP9-induced alkaline phosphatase production by MC3T3-E1 cells. The ED50 for this effect is typically 5-15 ng/mL in the presence of 2 ng/mL of recombinant human BMP-9.

ADDITIONAL INFORMATION

Related Product Information for ACVRL1 active protein	Background: Activin A receptor, type II-like 1 (ACVRL1), also known as ALK-1 (activin receptor-like kinase 1), is an endothelial-specific type I receptor of the TGF-beta (transforming growth factor beta) receptor family of ligands. On ligand binding, a heteromeric receptor complex forms consisting of two type II and two type I transmembrane serine/threonine kinases. ACVRL1 protein is expressed in certain blood vessels of kidney, spleen, heart and intestine, serving as an important role during vascular development. Mutations in ACVRL1 gene are associated with hemorrhagic telangiectasia type 2, also known as Rendu-Osler-Weber syndrome 2 and vascular disease.
References	French Rendu-Osler network, et al. (2004) Molecular screening of ALK1/ACVRL1 and ENG genes in hereditary hemorrhagic telangiectasia in France. Hum Mutat. 23(4): 289-299. Simon M, et al. (2006) Association of a polymorphism of the ACVRL1 gene with sporadic arteriovenous malformations of the central nervous system. J Neurosurg. 104(6): 945-9. Argyriou L, et al. (2006) Novel mutations in the ENG and ACVRL1 genes causing hereditary hemorrhagic teleangiectasia. Int J Mol Med. 17(4):655-9.

NCBI AND UNIPROT INFORMATION

UniProt Accession #	E2R174
Molecular Weight	The recombinant canine ACVRL1/Fc is a disulfide-linked homodimer. The reduced monomer comprises 339 amino acids and has a predicted molecular mass of 37.9kDa. The apparent molecular mass of the protein is approximately 43-47kDa in SDS-PAGE under reducing

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