



# Recombinant Protein Technical Manual

**Recombinant Human ALK/ACVRL1 Protein (His Tag)(Active)**  
RPES2413

## Product Data:

**Product SKU:** RPES2413

**Size:** 100µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** NP\_000011.2

## Protein Information:

**Molecular Mass:** 12.3 kDa

**AP Molecular Mass:** 27 kDa

**Tag:** C-His

**Bio-activity:** Measured by its ability to inhibit BMP9 induced alkaline phosphatase production by MC3T3E1 mouse chondrogenic cells. David, L. et al. (2007) Blood 109:1953. The ED50 for this effect is typically 50-200 ng/mL in the presence of 2 ng/mL of recombinant human BMP9.

**Purity:** > 92 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Serine/Threonine-Protein Kinase Receptor R3; SKR3; Activin Receptor-Like Kinase 1; ALK; TGF-B Superfamily Receptor Type I; TSR-I; ACVRL1; ACVRLK1; ALK1;HHT;HHT2;ORW2;SKR3

## Immunogen Information:

**Sequence:** Met 1-Gln 118

## Background:

Activin A receptor, type II-like 1 (ACVRL1), also known as ALK (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.