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**Recombinant Mouse Activin Receptor-like Kinase 1 Protein**

**Cat.NO.: TP04561**

3th Edition

**Synonyms:** Serine/threonine-protein kinase receptor R3; SKR3; Activin receptor-like kinase 1; ALK-1; TGF- $\beta$  superfamily receptor type I; TSR-I; ACVRL1; activin A receptor type II-like 1; activin A receptor

**Description:** Activin Receptor-Like Kinase 1 (ALK-1) is a type I cell-surface receptor for the TGF- $\beta$  superfamily of ligands, which mediates signaling of BMP9 (bone morphogenetic protein) and BMP10. ALK1 signaling is necessary for angiogenesis during embryogenesis, wound healing, and tumor growth. ALK-1 has a high degree of similarity in serine-threonine kinase subdomains, a glycine and serine rich region preceding the kinase-domain, and a C-terminal tail with other activin receptor-like kinase proteins. ALK-1 is mainly expressed in endothelial cells regulating proliferation and migration in vitro and angiogenesis in vivo. Mutations in ALK-1 as well as in endoglin are associated with hereditary hemorrhagic telangiectasia (HHT), suggesting ALK-1 plays a critical role for in the control of blood vessel development or repair.

**Form:** PBS

**Molecular Weight:** 38.1 kDa

**Sequences:** Asp23-Pro119

**Purity:** > 95% by HPLC

**Concentration:**

**Endotoxin Level:** <1.0 EU per 1  $\mu$ g of protein (determined by LAL method)

**Storage:** Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.