Recombinant Protein Technical Manual

Recombinant Human ALK4/ACVR1B Protein (His & Fc Tag)(Active)

RPES1892

Product Data:

Product SKU: RPES1892

Size: 100µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_004293.1

Protein Information:

Molecular Mass:	39.6 kDa
AP Molecular Mass:	46 kDa
Tag:	C-His & Fc
Bio-activity:	Measured by its binding ability in a functional ELISA. Immobilized human TDGF1 at 2 µg/ml (100 µl/well) can bind human ALK-4 with a linear range of 0.0068-0.16 µg/ml.
Purity:	> 80 % 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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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:	Functional ELISA
Synonyms:	Activin Receptor TypeB; Activin Receptor Type IB; ACTR-IB; Activin Receptor-Like Kinase 4; ALK-4; Serine/Threonine-Protein Kinase Receptor R2; SKR2; ACVR1B; ACVRLK4; ALK4

Immunogen Information:

Sequence: Met 1-Glu 126

Background:

ALK-4 (Activin Receptor-Like Kinase 4) or ACVR1B (Activin A Receptor, type 1B), belongs to the protein kinase superfamily, TKL Ser/Thr protein kinase family, and TGFB receptor subfamily. ALK-4/ACVR1B acts as a transducer of activin or activin like ligands signals. Activin binds to either ACVR2A or ACVR2B and then forms a complex with ACVR1B. The known type II activin receptors include ActRII and ActRIIB, while the main type I activin receptor in mammalian cells is ALK-4 (ActRIB). In the presence of activin, type II and type I receptors form complexes whereby the type II receptors activate ALK-4 through phosphorylation. The activated ALK-4, in turn, transduces signals downstream by phosphorylation of its effectors, such as Smads, to regulate gene expression and affect cellular phenotype. ALK-4/ACVR1B is an important regulator of vertebrate development, with roles in mesoderm induction, primitive streak formation, gastrulation, dorsoanterior patterning, and left-right axis determination.