



Recombinant Protein Technical Manual

Recombinant Human ACVR2B/ActivinR-IIB Protein (His Tag)(Active) RPES5177

Product Data:

Product SKU: RPES5177

Size: 100µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_001097.2

Protein Information:

Molecular Mass: 15 kDa

AP Molecular Mass: 33-38 kDa

Tag: C-His

Bio-activity: 1. Measured by its ability to bind biotinylated Human INHBA-his in functional ELISA. 2. Measured by its ability to bind biotinylated Mouse INHBA-his in functional ELISA. 3. Measured by its ability to neutralize Activin-mediated inhibition on MPC11 cell proliferation. The ED50 for this effect is typically 0.3-2 µg/mL in the presence of 10 ng/mL recombinant Activin A.

Purity: > 97 % 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: Functional ELISA

Synonyms: Activin Receptor Type-2B; Activin Receptor Type IIB; ACTR-IIB; ACVR2B; Bone Morphogenetic Protein Receptor Type-2; BMP Type-2 Receptor; BMPR-4; Bone Morphogenetic Protein Receptor Type II; BMP Type II Receptor

Immunogen Information:

Sequence: Met 1-Thr 134

Background:

ACVR2A and ACVR2B are two activin type II receptors. ACVR2B is integral to the activin and myostatin signaling pathway. Ligands such as activin and myostatin bind to ACVR2A and ACVR2B. Myostatin, a negative regulator of skeletal muscle growth, is regarded as a potential therapeutic target and binds to ACVR2B effectively, and to a lesser extent, to ACVR2A. The structure of human ACVR2B kinase domain in complex with adenine establishes the conserved bilobal architecture consistent with all other catalytic kinase domains. Haplotype structure at the ACVR2B and follistatin loci may contribute to interindividual variation in skeletal muscle mass and strength. Defects in ACVR2B are a cause of left-right axis malformations.