

# Recombinant Protein Technical Manual

# Recombinant Human Activin RIIA/ACVR2A Protein (Fc Tag)(Active)

RPES4964

#### **Product Data:**

**Product SKU:** RPES4964 **Size:** 100μg

Species: Human Expression host: HEK293 Cells

**Uniprot:** NP 001607.1

#### **Protein Information:**

Molecular Mass: 40.0 kDa

AP Molecular Mass: 60-65 kDa

Tag: C-Fc

**Bio-activity:** Measured by its ability to neutralize Activin-mediated inhibition on MPC11 cell

proliferation. The ED50 for this effect is typically 10-40 ng/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:** 

**Synonyms:** Activin Receptor Type-2A; Activin Receptor Type IIA; ACTRIIA; ACTRIIA; ACVR2A;

ACVR2;ACTRII

## **Immunogen Information:**

Sequence: Met 1-Pro 134

### **Background:**

ACVR2A and ACVR2B are two activin type II receptors. ACVR2A has been shown to interact with INHBA, SYNJ2BP and ACVR1B. The bovine ACVR2A gene encodes a protein of 513 amino acids which is highly homologous (approximately 98% identity) to the rat, mouse, and human ACVR2A proteins. Inactivation of ACVR2A is a common event in prostate cancer cells suggesting it may play an important role in the development of prostate cancer. The ACVR2A gene is a putative tumor suppressor gene that is frequently mutated in microsatellite-unstable colon cancers (MSI-H colon cancers). Frameshift mutation of ACVR2A may contribute to MSI-H colon tumorigenesis via disruption of alternate TGF-beta effector pathways.