



# Recombinant Protein Technical Manual

## Recombinant Human Activin RIIA/ACVR2A Protein (His Tag) RPES4914

### Product Data:

**Product SKU:** RPES4914

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** P27037

### Protein Information:

**Molecular Mass:** 14.35 kDa

**AP Molecular Mass:** 32 kDa

**Tag:** C-His

**Bio-activity:**

**Purity:** > 95% as determined by reducing SDS-PAGE.

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

**Storage:** Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°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 a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4.

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

**Application:**

**Synonyms:** Activin Receptor Type-2A; Activin Receptor Type IIA; ACTR-IIA; ACTRIIA; ACVR2A; ACVR2;ACTRII

## Immunogen Information:

**Sequence:** Ala20-Pro134

## Background:

Activin Receptor Type-2A is a protein that in humans is encoded by the ACVR2A gene. ACVR2A is an activin type 2 receptor. This gene encodes activin A type II receptor. Activins are dimeric growth and differentiation factors which belong to the transforming growth factor-beta (TGF-beta) superfamily of structurally related signaling proteins. Activins signal through a heteromeric complex of receptor serine kinases which include at least two type I (I and IB) and two type II (II and IIB) receptors. These receptors are all transmembrane proteins, composed of a ligand-binding extracellular domain with cysteine-rich region, a transmembrane domain, and a cytoplasmic domain with predicted serine/threonine specificity. Type I receptors are essential for signaling; and type II receptors are required for binding ligands and for expression of type I receptors. Type I and II receptors form a stable complex after ligand binding, resulting in phosphorylation of type I receptors by type II receptors. Type II receptors are considered to be constitutively active kinases.