# **Product Name: Recombinant Human ALK-2 (C-Fc)**

Catalog #: PHH2223



### **Summary**

Name ALK-2/Activin RIA/Receptor protein serine/threonine kinase/ACVR1

**Purity** Greater than 95% as determined by reducing SDS-PAGE

**Endotoxin level** <1 EU/μg as determined by LAL test.

Construction Recombinant Human Receptor Protein Serine/Threonine Kinase is produced

by our Mammalian expression system and the target gene encoding

Asp23/xadVal124 is expressed with a human IgG1 Fc tag at the C-terminus.

Accession # Q53SV1

**Host** Human Cells

**Species** Human

Predicted Molecular Mass 38.2 KDa

Formulation Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.

Shipping The product is shipped at ambient temperature. Upon receipt, store it

immediately at the temperature listed below.

**Stability&Storage** Store at  $\leq$ -70°C, stable for 6 months after receipt. Store at  $\leq$ -70°C, stable for 3

months under sterile conditions after opening. Please minimize freeze-thaw

cycles.

**Reconstitution** Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is

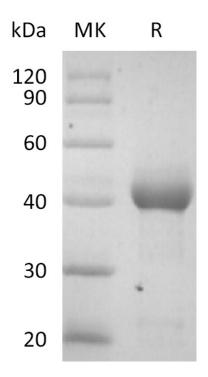
not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles. Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

### **SDS-PAGE** image

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#### **Alternative Names**

activin A receptor, type I; Activin RIA; ActivinRIA; ACTRI; ACVR1A; ACVR1A; ACVRLK2; ALK-2; FOP; SKR1; TSRI

## **Background**

Activin RIA, also known as ALK-2, TSK-7L, SKR1, TSR-I, and ACTR-I, is a glycosylated 65 kDa type I receptor in the TGF-beta serine/threonine kinase receptor family. Binding of TGF-beta superfamily ligands induces formation of a heterotetrameric complex that contains two chains each of a type I and a type II receptor in multiple combinations. The type II receptors phosphorylate the type I receptors which then phosphorylate and activate Smad signal transduction proteins. Activin RIA functions in a wide variety of growth and differentiation processes including gastrulation, skeletal system development, and cardiac morphogenesis. BMP signaling through Activin RIA is enhanced by the direct interaction between Activin RIA and RGM-B/DRAGON, a BMP coreceptor that also associates with other type I and type II receptors. Activin RIA can additionally phosphorylate the coreceptor Endoglin and is required for the inhibitory effect of Endoglin on prostate cancer cell motility.

#### Note

For Research Use Only, Not for Diagnostic Use.