

ALK-2/ACVR1 Protein, Human, Recombinant (hFc)

General Information

Synonyms:	ACVRLK2;FOP;Activin RIA;ACTRI;ALK-2;activin A receptor, type I;ACVR1A;ACVR1;ALK2;ActivinRIA;TSRI;SKR1
Protein Construction:	Asp23-Val124
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q53SV1
Molecular Weight:	38-45 KDa (reducing condition)
AA Sequence:	Asp23-Val124

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein 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.

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