

Recombinant Mouse ALK-2/ACVR1 Protein (His & Fc Tag)

Catalog Number:PKSM040751

Note: Centrifuge before opening to ensure complete recovery of vial contents.

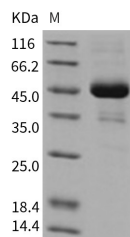
Description

| | |
|------------------------------------|---|
| Synonyms | ActR-I;ActRIA;Acvr;Acvrlk2;Alk-2;ALK2;Alk8;D330013D15Rik;SKR1;Tsk7L |
| Species | Mouse |
| Expression Host | HEK293 Cells |
| Sequence | Met 1-Glu 123 |
| Accession | NP_031420.2 |
| Calculated Molecular Weight | 40 kDa |
| Observed molecular weight | 45 kDa |
| Tag | C-His-Fc |
| Bioactivity | Measure by its ability to bind with human BMP2 in a functional ELISA. |

Properties

| | |
|-----------------------|---|
| Purity | > 90 % as determined by reducing SDS-PAGE. |
| Endotoxin | < 1.0 EU per µg of the protein as determined by the LAL method. |
| Storage | Generally, 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 Normally 5 % - 8 % trehalose, mannitol and 0.01 % Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual. |
| Reconstitution | Please refer to the printed manual for detailed information. |

Data



> 90 % as determined by reducing SDS-PAGE.

Background

ALK-2, also termed as ACVR1, was initially identified as an activin type I receptor because of its ability to bind activin in concert with ActRII or ActRIIB. ALK-2 is also identified as a BMP type I receptor. It has been demonstrated that ALK-2 forms complex with either the BMP-2/7-bound BMPRII or ACVR2A /ACVR2B. ALK-1 and ALK-2 presenting in the yeast *Saccharomyces cerevisiae* are two haspin homologues. Both ALK-1 and ALK-2 exhibit a weak auto-kinase activity in vitro, and are phosphoproteins in vivo. ALK-1 and ALK-2 levels peak in mitosis and late-S/G2. Control of protein stability plays a major role in ALK-2 regulation. The half-life of ALK-2 is particularly short in G1. Overexpression of ALK-2, but not of ALK-1, causes a mitotic arrest, which is correlated to the kinase activity of the protein. This suggests a

For Research Use Only

A Reliable Research Partner in Life Science and Medicine

Toll-free: 1-888-852-8623

Web: www.elabscience.com

Tel: 1-832-243-6086

Email: techsupport@elabscience.com

Fax: 1-832-243-6017

Recombinant Mouse ALK-2/ACVR1 Protein (His & Fc Tag)^{dg}



Catalog Number:PKSM040751

role for ALK-2 in the control of mitosis. Endoglin is phosphorylated on cytosolic domain threonine residues by the TGF-beta type I receptors ALK-2 and ALK-5 in prostate cancer cells. Endoglin did not inhibit cell migration in the presence of constitutively active ALK-2. Defects in ALK-2 are a cause of fibrodysplasia ossificans progressiva (FOP).

For Research Use Only

A Reliable Research Partner in Life Science and Medicine

Toll-free: 1-888-852-8623

Tel: 1-832-243-6086

Fax: 1-832-243-6017

Web: www.elabscience.com

Email: techsupport@elabscience.com