CREATIVE BIOMART®
Immune Checkpoints

# Recombinant Cynomolgus ACVR1 Protein, C-hFc-tagged

## Product Information

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| ***Cat*** | *IMP-1788* |
| ***Official Symbol*** | *ACVR1* |
| ***Product Overview*** | *Recombinant cynomolgus ACVR1 (F7A9J8) (Met1-Glu123) was expressed with the Fc region of human IgG1 at the C-terminus.* |
| ***Description*** | *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 BMPR-II 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 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).* |
| ***Expression System*** | *HEK293* |
| ***Species*** | *Cynomolgus* |
| ***Tag*** | *C-hFc* |
| ***Predicted N Terminal*** | *Asp 23* |
| ***Form*** | *Lyophilized from sterile PBS, pH 7.4, 5 % trehalose, 5% mannitol and 0.01% Tween80.* |
| ***Molecular Mass*** | *The recombinant cynomolgus ACVR1 is a disulfide-linked homodimer. The reduced monomer comprises 342 amino acids and has a calculated molecular mass of 38.2 KDa.The apparent molecular mass of the protein is approximately 44 and 37 KDa respectively in SDS-PAGE.* |
| ***Protein length*** | *Met1-Glu123* |
| ***Endotoxin*** | *< 1.0 EU/μg of the protein as determined by the LAL method* |
| ***Purity*** | *> 95 % as determined by SDS-PAGE* |


45-1 Ramsey Road, Shirley, NY 11967, USA
Tel: 1-631-559-9269 1-516-512-3133 E-mail: info@creative-biomart.com

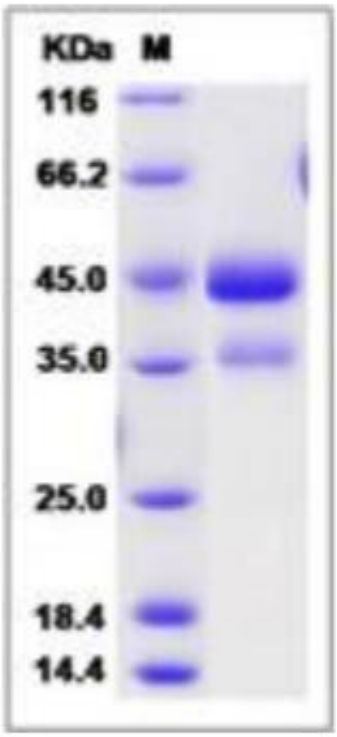
***Storage***

*Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.*

***Reconstitution***

*A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.*

***SDS-PAGE***





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