

# Active Recombinant Mouse Acvr2a Protein, His Tagged, Low endotoxin

**Cat. No.** Acvr2a-11201M    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Mouse Activin RIIA Protein, His Tag is expressed from human 293 cells (HEK293). It contains AA Ala 20-Pro 135 (Accession # P27038-1). This protein carries a polyhistidine tag at the C-terminus. Predicted N-terminus: Ala 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>ProteinLength</b>    | 20-135 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Description</b>      | Activin receptor type-2A (ACVR2A) is also known as activin receptor type IIA, ACTRIIA, ACTRIIA, and ACVR2, and is a single-pass type I membrane protein. ACVR2A belongs to the protein kinase superfamily, the TKL Ser/Thr protein kinase family, and the TGFβ receptor subfamily. Upon ligand binding, ACVR2A forms a receptor complex consisting of two type II and two type I transmembrane serine/threonine kinases. Type II receptors phosphorylate and activate type I receptors, which then phosphorylate and activate SMAD transcriptional regulators. ACVR2A also serves as a receptor for activin A, activin B, and inhibin A (the latter in complex with betaglycan). Two type II activin receptors (ACVR2A and ACVR2B) have been identified, which bind different activins with distinct affinities. |
| <b>Form</b>             | Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Bio-activity</b>     | Immobilized Mouse Activin RIIA Protein, His Tag at 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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|                       |                                                                                                                                                                                                                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | µg/mL (100 µL/well) can bind Bimagrumab with a linear range of 0.05-1 ng/mL.                                                                                                                                                                                                                                                 |
| <b>Molecular Mass</b> | The protein has a calculated MW of 15.3 kDa. The protein migrates as 25-35 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.                                                                                                                  |
| <b>Endotoxin</b>      | Less than 0.01 EU/µg by the LAL method/rFC method.                                                                                                                                                                                                                                                                           |
| <b>Purity</b>         | >90% as determined by SDS-PAGE. >95% as determined by SEC-HPLC.                                                                                                                                                                                                                                                              |
| <b>Storage</b>        | This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. |
| <b>Reconstitution</b> | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.                                                                                                                                       |

## GENE INFORMATION

|                        |                                                                                                                       |
|------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | <a href="#">Acvr2a activin receptor IIA [ Mus musculus (house mouse) ]</a>                                            |
| <b>Official Symbol</b> | <a href="#">Acvr2a</a>                                                                                                |
| <b>Synonyms</b>        | ACVR2A; activin receptor IIA; activin receptor type-2A; ACTR-IIA; activin receptor type IIA; Acvr2; ActrIIa; TactrII; |
| <b>Gene ID</b>         | <a href="#">11480</a>                                                                                                 |
| <b>mRNA Refseq</b>     | <a href="#">NM_007396</a>                                                                                             |

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**Protein Refseq** NP\_031422

**UniProt ID** P27038

**SDS-PAGE**



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