

Active Recombinant Human ACVR2A Homodimer Protein, His tagged

Cat. No. ACVR2A-16H **Lot. No.** (See product label)

SPECIFICATION

Product Overview ACVR2A protein dimer contains an ACVR2A extracellular domain (UniProt# P27037) fused with a proprietary cis-dimer motif followed by a His tag at the C-terminus was expressed in HEK293T.

Species Human

Source HEK293T

ProteinLength 20-135 aa

Description Human Activin receptor type-2A (ACVR2A) is a Type I transmembrane protein belonging to the transforming growth factor-beta (TGF-beta) superfamily of signaling proteins. ACVR2A contains an extracellular domain composed of a ligand binding domain. It is a Type II serine/threonine kinase receptor and functions by binding ligands like activins, myostatin, and other TGF- β family members and forming receptor complexes activating the intracellular signaling pathway. ACVR2A interacts with inhibin beta A (INHBA) as well as myostatin, although to a lesser extent than ACVR2B. ACVR2A can form homodimers (ACVR2A-ACVR2A) or heterodimers (e.g., with ACVR2B). ACVR2A dimers are involved in regulating important biological processes such as cell growth, differentiation, development, and inflammation. Homodimerization, in particular, plays a pivotal role in the activin signaling pathway, which influences processes like tissue repair, muscle growth, and immune responses. Mutation or decreased expression of ACVR2A has been shown to play an important

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role in several cancers including prostate and colorectal. Therefore, a recombinant protein mimicking the ACVR2A dimer conformation can be crucial for basic and translational research as well as ACVR2A-targeting therapeutic discovery.

Molecular Mass	43 kDa
Purity	Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition
Application	Verified Applications: ELISA for ACVR2A-specific antibody binding assays. Suggested Applications: SPR & BLI for ACVR2A-specific antibody protein binding assays. Animal immunization, RUO.
Storage	Store at -80 centigrade.
Storage Buffer	0.22µm filtered PBS, pH 7.4
Shipping	Frozen Dry Ice

GENE INFORMATION

Gene Name	ACVR2A activin A receptor, type IIA [Homo sapiens (human)]
Official Symbol	ACVR2A
Synonyms	ACVR2A; activin A receptor, type IIA; activin A receptor, type II, ACVR2; activin receptor type-2A; ACTRII; ACVR2;
Gene ID	92
mRNA Refseq	NM_001616

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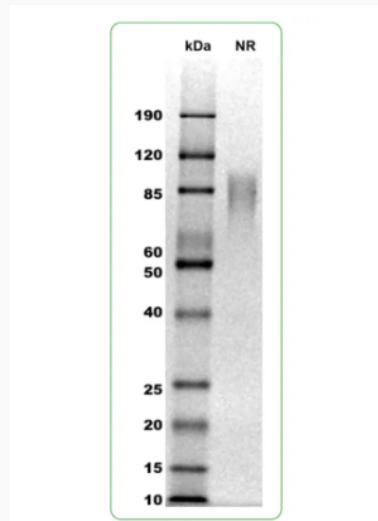
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Protein Refseq NP_001607

MIM 102581

UniProt ID P27037

SDS-PAGE



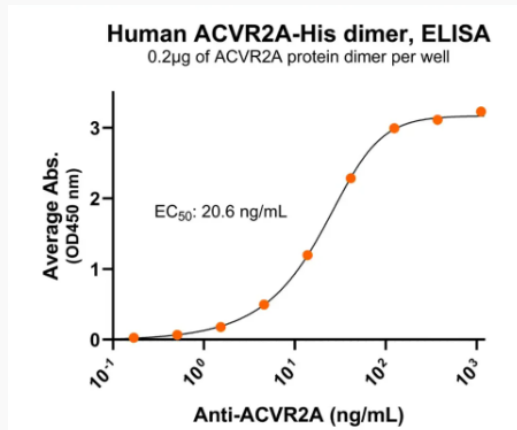
MW: Molecular Weight marker reduced condition NR: ACVR2A dimer under non-reduced condition

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**Bioactivity-Antibody
Binding**



Immobilized human ACVR2A protein dimer, His Tag at 2 µg/mL (100 µL/well) can bind anti-human ACVR2A monoclonal antibody with half maximal effective concentration (EC₅₀) range of 10.3-41.1 ng/mL (QC tested).

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