

# Recombinant Human ACVR1 Protein (T172-C509), His tagged

Cat. No. ACVR1-0159H    Lot. No. (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant Human 8His-TEV-ACVR1(T172-C509) (Q207E) Protein was expressed in Insect cell.
<b>Species</b>	Human
<b>Source</b>	Insect Cells
<b>ProteinLength</b>	T172-C509
<b>Description</b>	Bone morphogenetic protein (BMP) type I receptor that is involved in a wide variety of biological processes, including bone, heart, cartilage, nervous, and reproductive system development and regulation. As a type I receptor, forms heterotetrameric receptor complexes with the type II receptors AMHR2, ACVR2A or ACVR2B. Upon binding of ligands such as BMP7 or GDF2/BMP9 to the heteromeric complexes, type II receptors transphosphorylate ACVR1 intracellular domain. In turn, ACVR1 kinase domain is activated and subsequently phosphorylates SMAD1/5/8 proteins that transduce the signal. In addition to its role in mediating BMP pathway-specific signaling, suppresses TGFbeta/activin pathway signaling by interfering with the binding of activin to its type II receptor. Besides canonical SMAD signaling, can activate non-canonical pathways such as p38 mitogen-activated protein kinases/MAPKs.
<b>Form</b>	Liquid
<b>Endotoxin</b>	< 0.01 EU per

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	µg of the protein
<b>Purity</b>	90%
<b>Stability</b>	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
<b>Storage</b>	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.
<b>Storage Buffer</b>	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
<b>Shipping</b>	It is shipped out with blue ice.

## GENE INFORMATION

<b>Gene Name</b>	ACVR1 activin A receptor, type I [ Homo sapiens (human) ]
<b>Official Symbol</b>	ACVR1
<b>Synonyms</b>	ACVR1; activin A receptor, type I; ACVRLK2; activin receptor type-1; ACVR1A; ALK2; SKR1; activin receptor type I; hydroxyalkyl-protein kinase; activin receptor-like kinase 2; TGF-B superfamily receptor type I; activin A receptor, type II-like kinase 2; serine/threonine-protein kinase receptor R1; FOP; TSRI; ACTRI;
<b>Gene ID</b>	90
<b>mRNA Refseq</b>	NM_001105
<b>Protein Refseq</b>	NP_001096

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<b>MIM</b>	102576
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<b>UniProt ID</b>	Q04771
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