

Product datasheet for **RC238653**

Activin Receptor Type IIA (ACVR2A) (NM_001278579) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Activin Receptor Type IIA (ACVR2A) (NM_001278579) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Activin Receptor Type IIA
Synonyms:	ACTRII; ACVR2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC238653 representing NM_001278579
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGAGCTGCTGCAAAGTTGGCGTTTGGCGTCTTTCTTATCTCCTGTTCTTCAGGTGCTATACTTGGTA
 GATCAGAAACTCAGGAGTGTCTTTTCTTTAATGCTAATTGGGAAAAAGACAGAACCAATCAAACCTGGTGT
 TGAACCGTGTATGGTGACAAAGATAAACCGCGCATTGTTTTGCTACCTGGAAGAAATTTTCTGGTTCC
 ATTGAAATAGTGAACAAGGTTGTTGGCTGGATGATATCAACTGCTATGACAGGACTGATTGTGTAGAAA
 AAAAAGACAGCCCTGAAGTATATTTTTGTTGCTGTGAGGGCAATATGTGTAATGAAAAGTTTTCTATTT
 TCCAGAGATGGAAGTACACAGCCCACTCAAATCCAGTTACACCTAAGCCACCTTATTACAACATCCTG
 CTCTATTCCTTGGTGCCACTTATGTTAATTGCGGGGATTGTCATTTGTGCATTTTGGGTGTACAGGCATC
 ACAAGATGGCCTACCCTCTGTACTTGTCCAACCTCAAGACCCAGGACCACCCCACTTCTCCATTACT
 AGGTTTGAACCACTGCAGTTATTAGAAGTGAAGCAAGGGGAAGATTTGGTTGTGTCTGGAAGCCAG
 TTGCTTAACGAATATGTGGCTGTCAAAATATTTCCAATACAGGACAAACAGTCATGGCAAAATGAATACG
 AAGTCTACAGTTTGCCTGGAATGAAGCATGAGAACATATTACAGTTCATTGGTGCAGAAAAACGAGGCAC
 CAGTGTGATGTGGATCTTTGGCTGATCACAGCATTTTCATGAAAAGGGTTCACTATCAGACTTTCTTAAG
 GCTAATGTGGTCTCTTGGAACTGACTGTGCATATTGCAGAAACCATGGCTAGAGGATTGGCATATTTAC
 ATGAGGATATACCTGGCCTAAAAGATGGCCACAAACCTGCCATATCTCACAGGGACATCAAAAGTAAAA
 TGTGCTGTTGAAAACAACCTGACAGCTGCATTGCTGACTTTGGGTTGGCCTTAAAATTTGAGGCTGGC
 AAGTCTGCAGGCGATACCCATGGACAGTTGGTACCCGGAGGTACATGGCTCCAGAGGTATTAGAGGGTG
 CTATAAACTTCCAAAGGGATGCATTTTTGAGGATAGATATGTATGCCATGGGATTAGCTCTATGGAACT
 GGCTTCTCGCTGACTGCTGCAGATGGACCTGTAGATGAATACATGTTGCCATTTGAGGAGGAAATGGC
 CAGCATCCATCTCTGAAGACATGCAGGAAGTTGTTGTGCATAAAAAAAGAGGCCTGTTTTAAGAGATT
 ATTGGCAGAAACATGCTGGAATGGCAATGCTCTGTGAAACCATTGAAGAATGTTGGGATCACGACGAGA
 AGCCAGGTTATCAGCTGGATGTGTAGGTGAAAGAATTACCCAGATGCAGAGACTAACAAATATTATTACC
 ACAGAGGACATTGTAACAGTGGTCAATGTTGACAAATGTTGACTTTCCTCCAAAGAATCTAGTCTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC238653 representing NM_001278579
 Red=Cloning site Green=Tags(s)

MGAAAKLAFVFLISCSGAILGRSETQECLFFNANWEKDRNTQTVPEPCYGDKDKRRHCFATWKNISGS
 IEIVKQGCWLDDINCYDRDTCVEKKDSPEVYFCCCEGNMCNEKFSYFPEMEVTQPTSNPVTKPPYYNII
 LYSLVPLMLIAGIVICAFWVYRHHKMAYPPVLVPTQDPGPPPSPLLGLKPLQLLEVKARGRFGCVWKAQ
 LLNEYVAVKIFPIQDKQSWQNEYEVYSLPGMKHENILQFIGAEKRGTSVDVLDLWITAFHEKGSLSDFLK
 ANVVSWNELCHIAETMARGLAYLHEDIPGLKDGHKPAISHRDIKSKNVLLKNNLTACIADFLALKFEAG
 KSAGDTHGQVGRRYMAPEVLEGAINFQRDAFLRIDMYAMGLVLWELASRCTAADGPVDEYMLPFEEEEIG
 QHPSLEDMQEVVHKKRPVLRDYWQKHAGMAMLCETIEECWDHDAEARLSAGCVGERITQMQRLTNIIT
 TEDIVTVMTMNTVDFPPKESL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg3781_h01.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001278579

ORF Size: 1539 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001278579.1](#), [NP_001265508.1](#)

RefSeq Size: 5374 bp

RefSeq ORF: 1542 bp

Locus ID: 92

UniProt ID: [P27037](#)

Cytogenetics: 2q22.3-q23.1

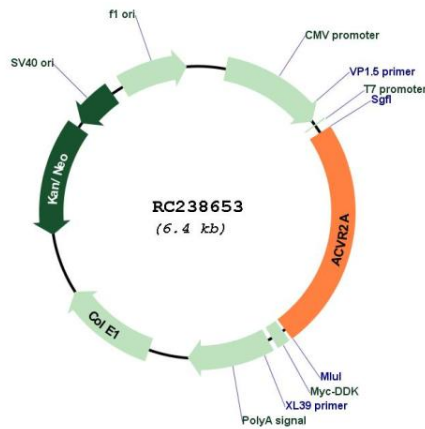
Protein Families: Druggable Genome, Protein Kinase, Transmembrane

Protein Pathways: Cytokine-cytokine receptor interaction, TGF-beta signaling pathway

MW: 57.8 kDa

Gene Summary: This gene encodes a receptor that mediates the functions of activins, which are members of the transforming growth factor-beta (TGF-beta) superfamily involved in diverse biological processes. The encoded protein is a transmembrane serine-threonine kinase receptor which mediates signaling by forming heterodimeric complexes with various combinations of type I and type II receptors and ligands in a cell-specific manner. The encoded type II receptor is primarily involved in ligand-binding and includes an extracellular ligand-binding domain, a transmembrane domain and a cytoplasmic serine-threonine kinase domain. This gene may be associated with susceptibility to preeclampsia, a pregnancy-related disease which can result in maternal and fetal morbidity and mortality. Alternative splicing results in multiple transcript variants of this gene. [provided by RefSeq, Jun 2013]

Product images:



Circular map for RC238653