

Product datasheet for **RG238017**

Activin Receptor Type IIA (ACVR2A) (NM_001278580) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Activin Receptor Type IIA (ACVR2A) (NM_001278580) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ACVR2A
Synonyms:	ACTRII; ACVR2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG238017 representing NM_001278580. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTT TAGTGAACCGTCAGAATTTTGT AATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCC GCGATCGCC
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ATGGTGACAAATGTTGACTTTCTCCCAAAGAATCTAGTCTA
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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Protein Sequence: >Peptide sequence encoded by RG238017
 Blue=ORF Red=Cloning site Green=Tag(s)

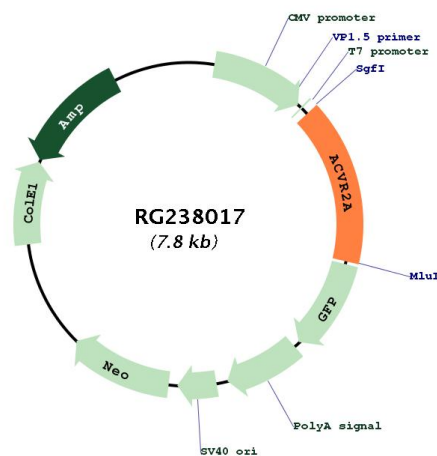
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 PGPPPPSPLLGLKPLQLLEVKARGRFGCYVWKAQLLNEYVAVKIFPIQDKQSWQNEYEVYSLPGMKHENI
 LQFIGAEKRGTSVDVDLWLTAFHEKGSLSDFLKANVSWNELCHIAETMARGLAYLHEDIPGLKDGHK
 PAISHRDIKSNVLLKNNLTACIADFLALKFEAGKSAGDTHGQVGTTRRYMAPEVLEGAINFQRDAFLR
 IDMYAMGLVLWELASRCTAADGPVDEYMLPFEETIGQHPSELDMEVYVHKKRPVLRDYWQKHAGMAM
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 MGYGFYHFGTYPSTYENPFLHAINNGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001278580
ORF Size:	1215 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).
RefSeq:	NM_001278580.1 , NP_001265509.1
RefSeq Size:	5177 bp
RefSeq ORF:	1218 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:	46.2 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]