

Product datasheet for **RG238653**

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:	TurboGFP
Symbol:	ACVR2A
Synonyms:	ACTRII; ACVR2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG238653 representing NM_001278579.
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGGGAGCTGCTGCAAAGTTGGCGTTTGGCGTCTTTCTTATCTCCTGTTCTTCAGGTGCTATACTTGGT
AGATCAGAAACTCAGGAGTGTCTTTTCTTAATGCTAATTGGAAAAAGACAGAACCAATCAAAGTGGT
GTTGAACCGTGTTATGGTGACAAAGATAAACGGCGGCATTGTTTTGCTACCTGGAAGAATATTTCTGGT
TCCATTGAAATAGTGAACAAGGTTGTTGGCTGGATGATCAACTGCTATGACAGGACTGATTGTGTA
GAAAAAAGACAGCCCTGAAGTATATTTTTGTTGCTGTGAGGGCAATATGTGTAATGAAAAGTTTTCT
TATTTTCCAGAGATGGAAGTACACAGCCCACTCAAATCCAGTTACACCTAAGCCACCCTATTACAAC
ATCCTGCTCTATTCCTTGGTGCCACTTATGTTAATTGCGGGGATTGTCATTTGTGCATTTGGGTGTAC
AGGCATACAAGATGGCCTACCCTCTGTACTTGTCCAACCAAGACCCAGGACCACCCACCTTCT
CCATTACTAGGTTTGAACCACTGCAGTTATTAGAAGTAAAGCAAGGGGAAGATTTGGTGTGTCTGG
AAAGCCAGTTGCTTAACGAATATGTGGCTGTCAAATATTTCCAATACAGGACAACAGTCATGGCAA
AATGAATACGAAGTCTACAGTTTGCCTGGAATGAAGCATGAGAACATATTACAGTTCAATGGTGCAGAA
AAACGAGGCACCAGTGTTGATGTGGATCTTTGGCTGATCACAGCATTTTATGAAAAGGGTCACTATCA
GACTTTCTTAAGGCTAATGTGGTCTCTTGGAAATGAACTGTGCATATTGCAGAAACCATGGCTAGAGGA
TTGGCATAATTTACATGAGGATATACCTGGCCTAAAAGATGGCCACAAACCTGCCATATCTCACAGGGAC
ATCAAAGTAAAAATGTGCTGTTGAAAAACAACCTGACAGCTTGCAATGCTGACTTTGGGTTGGCCTTA
AAATTTGAGGCTGGCAAGTCTGCAGGCGATACCCATGGACAGGTTGGTACCCGGAGGTACATGGCTCCA
GAGGTATTAGAGGCTGCTATAAACTTCAAAGGGATGCATTTTGGAGGATAGATATGATGCCATGGGA
TTAGTCTTATGGAACTGGCTTCTCGCTGTACTGCTGCAGATGGACCTGTAGATGAATACATGTTGCCA
TTTGAGGAGGAAATTGGCCAGCATCCATCTCTTGAAGACATGCAGGAAGTTGTTGTGCATAAAAAAAG
AGGCCTGTTTTAAGAGATTATTGGCAGAAACATGCTGGAATGGCAATGCTCTGTGAAACCATTGAAGAA
TGTGGGATCACGACGCAGAAGCCAGGTTATCAGCTGGATGTGTAGGTGAAAGAATTACCCAGATGCAG
AGACTAACAAATATTATTACCACAGAGGACATTGTAACAGTGGTCACAATGGTGACAAATGTTGACTTT
CCTCCAAAGAATCTAGTCTA
ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTAAAC
```

Protein Sequence:

>Peptide sequence encoded by RG238653
 Blue=ORF Red=Cloning site Green=Tag(s)

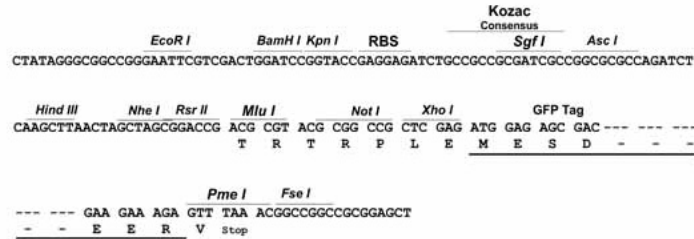
```
MGAAAKLAFVFLISCSGAILGRSETQECLFFNANWEKDRTNQTGVEPCYGDKDKRRHCFATWKNISG
SIEIVKQGCWLLDINCYDRTDCVEKKDSPEVYFCCCEGNMCNEKFSYFPEMEVTQPTSNPVTPKPPYYN
ILLYSLVPLMLIAGIVICAFWVYRHHKMAYPVVLVPTQDPGPPPPSPLLGLKPLQLEVKARGFRGCVW
KAQLLNEYVAVKIFPIQDKQSWQNEYEVYSLPGMKHENILQFIGAEKRGTSVDVDLWLITAFHEKGSLS
DFLKANVYSWNLCHIAETMARGLAYLHEDIPLGKDGHKPAISHRDIKSKNVLKNNLTACIADFLAL
KFEAGKSAGDTHGQVTRRYMAPEVLEGAINFQRDAFLRIDMYAMGLVLWELASRCTAADGPVDEYMLP
FEEIEGQHPSEDMQEVVHKKRPVLRDYWQKHAGMAMLCETIEECWDHDAEARLSAGCVGERITQMQL
RLTNIITTEDIVTVMVTNVDFPPKESL
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSTYENPFLHAINNGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLGSFTRTFLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

Restriction Sites:

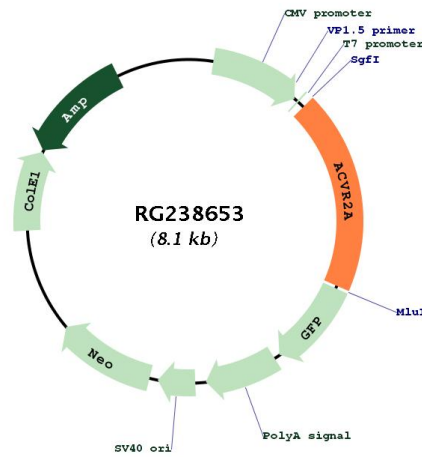
Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



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).
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]