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Product datasheet for RC402556

Activin Receptor Type IA (ACVR1) (NM_001105) Human Mutant ORF Clone

Product data:

Product Type:	Mutant ORF Clones
Product Name:	Activin Receptor Type IA (ACVR1) (NM_001105) Human Mutant ORF Clone
Mutation Description:	G328R
Affected Codon#:	328
Affected NT#:	982
Nucleotide Mutation:	ACVR1 Mutant (G328R), Myc-DDK-tagged ORF clone of Homo sapiens activin A receptor, type I (ACVR1), transcript variant 1 as transfection-ready DNA
Effect:	Fibrodysplasia ossificans progressiva
Symbol:	Activin Receptor Type IA
Synonyms:	ACTRI; ACVR1A; ACVRLK2; ALK2; FOP; SKR1; TSRI
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_001105
ORF Size:	1527 bp
Restriction Sites:	SgfI-MluI
Restriction Sites:	SgfI-MluI

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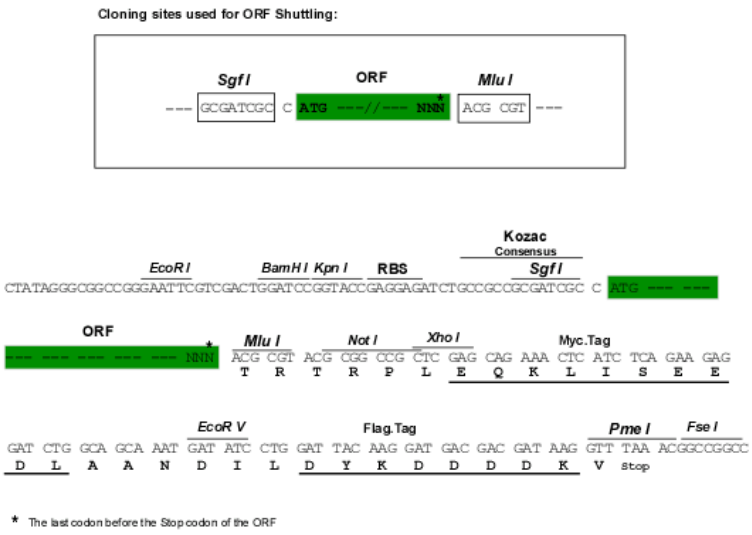
Cloning Scheme:



OTI Disclaimer:

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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:

NP_001096

RefSeq Size:	1527 bp
RefSeq ORF:	1530 bp
Locus ID:	90
Cytogenetics:	2q24.1
Domains:	Activin_recp, pkinase, TyrKc, S_TKc, GS
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase, Transmembrane
Protein Pathways:	Cytokine-cytokine receptor interaction, TGF-beta signaling pathway
MW:	56 kDa
Gene Summary:	Activins are dimeric growth and differentiation factors which belong to the transforming growth factor-beta (TGF-beta) superfamily of structurally related signaling proteins. Activins signal through a heteromeric complex of receptor serine kinases which include at least two type I (I and IB) and two type II (II and IIB) receptors. These receptors are all transmembrane proteins, composed of a ligand-binding extracellular domain with cysteine-rich region, a transmembrane domain, and a cytoplasmic domain with predicted serine/threonine specificity. Type I receptors are essential for signaling; and type II receptors are required for binding ligands and for expression of type I receptors. Type I and II receptors form a stable complex after ligand binding, resulting in phosphorylation of type I receptors by type II receptors. This gene encodes activin A type I receptor which signals a particular transcriptional response in concert with activin type II receptors. Mutations in this gene are associated with fibrodysplasia ossificans progressive. [provided by RefSeq, Jul 2008]