

## Product datasheet for **RC225649**

### Activin A Receptor Type IC (ACVR1C) (NM\_001111032) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Activin A Receptor Type IC (ACVR1C) (NM_001111032) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Activin A Receptor Type IC
Synonyms:	ACVRLK7; ALK7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC225649 representing NM_001111032 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACCCGGGCGCTCTGCTCAGCGCTCCGCCAGGCTCTCCTGCTGCTCGCAGCGGCCGCCGAGCTCTCGC  
CAGGACTGAAGTGTGTATGTCTTTGTGTGATTCTTCAAACCTTACCTGCCAAACAGAAGGAGCATGTTG  
GGCATCAGTCATGCTAACCAATGGAAAAGAGCAGGTGATCAAATCCTGTGTCTCCCTTCCAGAACTGAAT  
GCTCAAGTCTTCTGTCATAGTTCCAACAATGTTACCAAAACCGAATGCTGCTTACAGATTTTTGCAACA  
ACATAACTGCACCTTCCAACAGGTCTACCTCTGTTGGTTCAAAGGACAATTGCAAGGACGATTGTGCT  
TCAGGAAATAGTAGGAAAAGGTAGATTTGGTGAGGTGTGGCATGGAAGATGGTGTGGGGAAGATGTGGCT  
GTGAAAATATTCTCCTCCAGAGATGAAAGATCTTGGTTTCGTGAGGCAGAAATTTACCAGACGGTATCGC  
TGCGACATGAAAACATCCTTGGTTTCATTGCTGCTGACAACAAAGATAATGGAACCTGGACTCAACTTTG  
GCTGGTATCTGAATATCATGAACAGGGCTCCTTATGACTATTTGAATAGAAATATAGTGACCGTGGCT  
GGAATGATCAAGCTGGCGCTCTCAATTGCTAGTGGTCTGGCACACCTTCATATGGAGATTGTTGGTACAC  
AAGGTAACCTGCTATTGCTCATCGAGACATAAAATCAAAGAATATCTTAGTGAAAAAGTGTGAACTTG  
TGCCATAGCGGACTTAGGGTTGGCTGTGAAGCATGATTCAATACTGAACACTATCGACATACCTCAGAAT  
CCTAAAGTGGGAACCAAGAGGTATATGGCTCCTGAAATGCTTGATGATACAATGAATGTGAATATCTTTG  
AGTCCTTCAAACGAGCTGACATCTATTCTGTTGGTCTGGTTACTGGGAAATAGCCCGGAGGTGTTCAGT  
CGGAGGAATTGTTGAGGAGTACCAATTGCCTTATTATGACATGGTGCCTTCAAGTCCCTCGATAGAGGAA  
ATGAGAAAGTTGTTTGTGACCAGAAGTTTCGACCAAGTATCCCAAACAGTGGCAAAGTTGTGAAGCAC  
TCCGAGTCATGGGGAGAATAATGCGTGAGTGTGGTATGCCAACGGAGCGGCCCGCTAACTGCTCTTCG  
TATTAAGAAGACTATATCTCAACTTTGTGTCAAAGAAGACTGCAAAGCC

**ACGGT**ACGGCGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC225649 representing NM\_001111032  
 Red=Cloning site Green=Tags(s)

MTRALCSALRQALLLLAAAAELSPGLKCVCLLCDSSNFTCQTEGACWASVMLTNGKEQVIKSCVSLPELN  
 AQVFCHSSNNVTKTECCFTDFCNNITLHLPGLPLLVRTIARTIVLQEI VGKGRFGEVWHGRWCGEDVA  
 VKIFSSRDERSWFREAEIYQTVMLRHENILGFIAADNKDNGTWTQLWL VSEYHEQGS LYDYLNRNIVTVA  
 GMIKLALSIASGLAHLHMEIVGTQGKPAIAHRDIKSKNILVKKCETCAIADLGLAVKHDSILNTIDIPQN  
 PKVGTGRYMAPEMLDDTMNVNIFESFKRADIYSVGLVYWEIARRCSVGGIVEEYQLPYDYMDVPSDPSIEE  
 MRKVCDQKFRPSIPNQWQSCEALRVMGRIMRECWYANGAARLTALRIKKTISQLCVKEDCKA

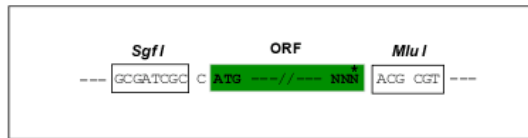
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001111032

**ORF Size:** 1239 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\\_001111032.1](#), [NP\\_001104502.1](#)

**RefSeq ORF:** 1242 bp

**Locus ID:** 130399

**UniProt ID:** [Q8NER5](#)

**Cytogenetics:** 2q24.1

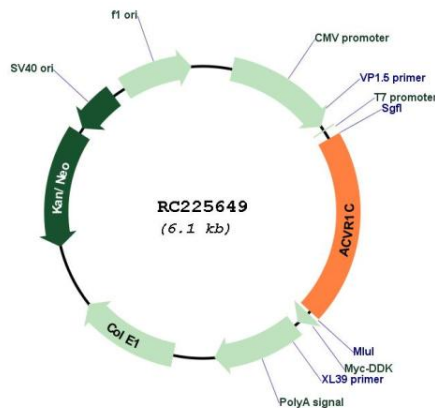
**Protein Families:** Druggable Genome, Protein Kinase, Transmembrane

**Protein Pathways:** Adherens junction, Chronic myeloid leukemia, Colorectal cancer, Endocytosis, MAPK signaling pathway, Pancreatic cancer, Pathways in cancer, TGF-beta signaling pathway

**MW:** 46.2 kDa

**Gene Summary:** ACVR1C is a type I receptor for the TGFB (see MIM 190180) family of signaling molecules. Upon ligand binding, type I receptors phosphorylate cytoplasmic SMAD transcription factors, which then translocate to the nucleus and interact directly with DNA or in complex with other transcription factors (Bondestam et al., 2001 [PubMed 12063393]).[supplied by OMIM, Mar 2008]

**Product images:**



Circular map for RC225649