

## Product datasheet for **RG206568**

### ACVRL1 (NM\_000020) Human Tagged ORF Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids                                |
| Product Name:             | ACVRL1 (NM_000020) Human Tagged ORF Clone          |
| Tag:                      | TurboGFP   |
| Symbol:                   | ACVRL1   |
| Synonyms:                 | ACVRLK1; ALK-1; ALK1; HHT; HHT2; ORW2; SKR3; TSR-I |
| Mammalian Cell Selection: | Neomycin   |
| Vector:                   | pCMV6-AC-GFP (PS100010)                            |
| E. coli Selection:        | Ampicillin (100 ug/mL)                             |



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**ORF Nucleotide Sequence:**

>RG206568 representing NM\_000020  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGACCTTGGGCTCCCCAGAAAGGCCTTCTGATGCTGCTGATGGCCTTGGTGACCCAGGGAGACCCTG  
 TGAAGCCGTCTCGGGCCCGCTGGTACCTGCAGTGTGAGAGCCACATTGCAAGGGCCCTACCTGCCG  
 GGGGGCTGGTGACAGTGTGCTGGTGCAGGGAGGGAGGCACCCCAAGAACATCGGGCTGCGGG  
 AACTTGACAGGGAGCTCTGCAGGGGGCCCCACCGAGTTCGTCACCACTACTGCTGCACAGCCACC  
 TCTGCAACCACAACGTGTCCCTGGTGTGGAGGCCACCAACCTCCTCGGAGCAGCCGGGAACAGATGG  
 CCAGCTGGCCCTGATCCTGGGCCCGTGTGCCCTTGTGCCCTGGTGGCCCTGGGTGTCTGGGCCTG  
 TGGCATGTCCGACGGAGGAGGAGAAGCAGCGTGGCCTGCACAGCGAGCTGGGAGAGTCCAGTCTCATCC  
 TGAAGCATCTGAGCAGGGCGACAGCATGTTGGGGACCTCCTGGACAGTACTGCACCACAGGGAGTGG  
 CTCAGGGCTCCCCTTCTGGTGCAGAGGACAGTGGCAGCGAGGTGCCCTGGTGGAGTGTGTGGAAAA  
 GGCCGCTATGGCGAAGTGTGGCGGGCTTGTGGCACGGTGGAGTGTGGCCGTCAAGATCTTCTCCCTCGA  
 GGGATGAACAGTCTGGTTCGGGAGACTGAGATCTATAACACAGTGTGCTCAGACACGACAACATCCT  
 AGGCTTCATCGCCTCAGACATGACCTCCCGCAACTCGAGCACGCAGCTGTGGCTCATCACGCACTACCAC  
 GAGCACGGCTCCCTCTACGACTTCTGCAGAGACAGCGCTGGAGCCCCATCTGGCTCTGAGGCTAGCTG  
 TGTCCGCGCATGCGCCCTGGCGCACCTGCACGTGGAGATCTTCGGTACACAGGGCAAACAGCCATTGC  
 CCACCGGACTTCAAGAGCCGCAATGTGCTGGTCAAGAGCAACCTGCAGTGTGCATCGCCGACCTGGGC  
 CTGGCTGTGATGCACTCACAGGGCAGCGATTACCTGGACATCGGCAACAACCCGAGAGTGGGCACCAAGC  
 GGTACATGGCACCCGAGGTGCTGGACGAGCAGATCCGCACGGACTGCTTTGAGTCTACAAGTGGACTGA  
 CATCTGGGCCTTTGGCCTGGTGTGCTGGGAGATTGCCCGCCGGACCATCGTGAATGGCATCGTGGAGGAC  
 TATAGACCACCCTTCTATGATGTGGTGCCTAATGACCCAGCTTTGAGGACATGAAGAAGTGGTGTGTG  
 TGGATCAGCAGACCCCCACCATCCCTAACCAGGCTGGTGCAGACCCGGTCTCTCAGGCCTAGCTCAGAT  
 GATGCGGGAGTGTGGTACCCAAACCCCTGCCCCGACTACCCGCGCTGCGGATCAAGAAGACACTACAA  
 AAAATTAGCAACAGTCCAGAGAAGCCTAAAGTATTCAA

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG206568 representing NM\_000020  
 Red=Cloning site Green=Tags(s)

MTLGSPRKGLMLLMALVTQDPVKPSRGLVTCTCESPHCKGPTCRGAWCTVVLVREEGRHPQEHRCGG  
 NLHRELCRGRPTEFVNHYCCDShLcNHNVSLVLEATQPPSEQPGTDGQLALILGPVLALLALVALGVLGL  
 WHVRRRQEKQRGLHSELGESSLILKASEQGDsMLGDLLDSDCTTGSgSGLPFLVQRtVARQVALVECVGK  
 GRYGEVWRGLWHGESVAVKIFSSRDEQSWFRETEIYNTVLLRHDNILGFIAASDMtSRNSSTQLWLIthYH  
 EHGSlyDFLQRQTLephLALRLAVSAACGLAHLHVEIFGTQgKPAIAHRDFKSRNVLVKSNLQCCIADLG  
 LAVMHSQGSdYLDIGNNPRVgTKRYMAPEVLDEQIRTDcFESYKWTDIWAFGLVLWEIARRTIVNGIVED  
 YRPPFYDVVPNDPSFEDMKKVVCVDQQTPTIPNRLAADPVLsGLAQMMREcWYPNP SARLTALRIKKTlQ  
 KISNSPEKPKVIQ

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_000020

**ORF Size:** 1509 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\\_000020.3](#)

**RefSeq Size:** 1970 bp

**RefSeq ORF:** 1512 bp

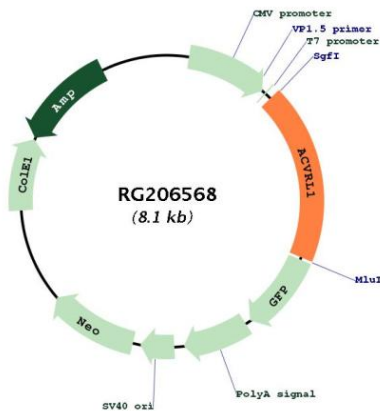
**Locus ID:** 94

**UniProt ID:** [P37023](#)

**Cytogenetics:** 12q13.13

|                          |   |
|--------------------------|---|
| <b>Domains:</b>          | Activin_recp, pkinase, TyrKc, S_TKc, GS   |
| <b>Protein Families:</b> | Druggable Genome, Protein Kinase, Transmembrane   |
| <b>Protein Pathways:</b> | Cytokine-cytokine receptor interaction, TGF-beta signaling pathway  |
| <b>Gene Summary:</b>     | This gene encodes a type I cell-surface receptor for the TGF-beta superfamily of ligands. It shares with other type I receptors a high degree of similarity in serine-threonine kinase subdomains, a glycine- and serine-rich region (called the GS domain) preceding the kinase domain, and a short C-terminal tail. The encoded protein, sometimes termed ALK1, shares similar domain structures with other closely related ALK or activin receptor-like kinase proteins that form a subfamily of receptor serine/threonine kinases. Mutations in this gene are associated with hemorrhagic telangiectasia type 2, also known as Rendu-Osler-Weber syndrome 2. [provided by RefSeq, Jul 2008] |

### Product images:



Circular map for RG206568