

## Product datasheet for **SC315576**

### ACVRL1 (NM\_001077401) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ACVRL1 (NM_001077401) Human Untagged Clone
Tag:	Tag Free
Symbol:	ACVRL1
Synonyms:	ACVRLK1; ALK-1; ALK1; HHT; HHT2; ORW2; SKR3; TSR-I
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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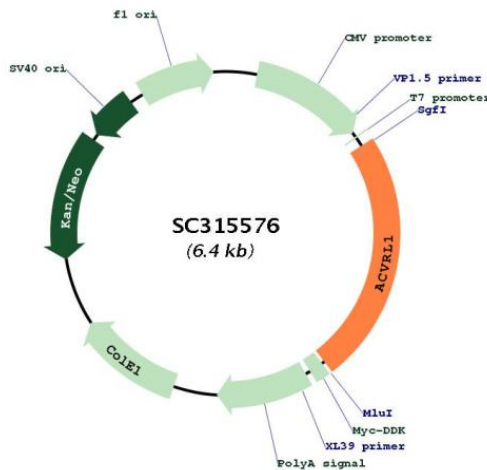
**Fully Sequenced ORF:** >SC315576 representing NM\_001077401.  
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCACGATCGCC
ATGACCTTGGGCTCCCCAGAAAGCCCTTCTGATGCTGCTGATGGCCTTGGTGACCCAGGGAGACCT
GTGAAGCCGCTCTGGGGCCCGCTGGTGACCTGCACGTGTGAGAGCCACATTGCAAGGGCCCTACCTGC
CGGGGGGCTGGTGCACAGTAGTGCTGGTGCGGGAGGAGGGAGGCACCCCAAGAACATCGGGGCTGC
GGAACTTGCACAGGGAGCTCTGCAGGGGGCGCCCAACGAGTTCGTCAACCACTACTGCTGCGACAGC
CACCTCTGCAACCACAACGTGTCCCTGGTGTGGAGGCCACCAACCTCCTTCGGAGCAGCCGGGAACA
GATGGCCAGCTGGCCCTGATCCTGGGCCCGTGTGGCCTTGCTGGCCCTGGTGGCCCTGGGTGTCTG
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CTCATCTGAAAGCATCTGAGCAGGGCGACAGCATGTTGGGGACCTCCTGGACAGTGACTGCACCACA
GGGAGTGGCTCAGGGCTCCCTTCTGGTGCAGAGGACAGTGGCACGGCAGGTTGCCTTGGTGGAGTGT
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TTCTCCTCGAGGGATGAACAGTCTGGTTCGGGAGACTGAGATCTATAACACAGTGTTCGTGACAGAC
GACAACATCCTAGGCTTCATCGCCTCAGACATGACCTCCCGAACCTCGAGCACGCAGCTGTGGCTCATC
ACGCACTACCACGAGCACGGCTCCCTCTACGACTTTCTGCAGAGACAGACGCTGGAGCCCATCTGGCT
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ATCGCCGACCTGGGCCTGGCTGTGATGCACTCACAGGGCAGCGATTACCTGGACATCGGCAACAACCCG
AGAGTGGGCACCAAGCGGTACATGGCACCCGAGGTGCTGGACGAGCAGATCCGCACGGACTGCTTTGAG
TCCTACAAGTGGACTGACATCTGGCCCTTGGCCTGGTGTGGGAGATTGCCCGCCGGACCATCGTG
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ATGAAGAAGTGGTGTGTGGATCAGCAGACCCCAACATCCCTAACCGCTGGCTGCAGACCCGGTC
CTCTCAGGCTAGCTCAGATGATGCGGGAGTGGTACCACCAACCCCTCTGCCGACTCACCGCGCTG
CGGATCAAGAAGACTACAAAAAATTAGCAACAGTCCAGAGAAGCCTAAAGTATTCAAG
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
  
```

**Restriction Sites:** SgfI-MluI

**Plasmid Map:**



**ACCN:** NM\_001077401

<b>Insert Size:</b>	1512 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001077401.1</a>
<b>RefSeq Size:</b>	4126 bp
<b>RefSeq ORF:</b>	1512 bp
<b>Locus ID:</b>	94
<b>UniProt ID:</b>	<a href="#">P37023</a>
<b>Cytogenetics:</b>	12q13.13
<b>Protein Families:</b>	Druggable Genome, Protein Kinase, Transmembrane
<b>Protein Pathways:</b>	Cytokine-cytokine receptor interaction, TGF-beta signaling pathway
<b>MW:</b>	56.1 kDa

**Gene Summary:**

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]

Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Variants 1 and 2 encode the same isoform. This variant contains an upstream in-frame start codon, but this upstream start codon is poorly conserved and would result in a protein that is 14 aa longer at the N-terminus and lacks a predicted signal peptide. The downstream translational start codon, as used in variant 1, is selected for this RefSeq based on its better conservation in mammalian species and on the presence of a predicted signal peptide in the protein N-terminus. Leaky scanning by ribosomes may allow translation initiation at the downstream start codon.