

## Product datasheet for **RC228537**

### Slingshot homolog 1 (SSH1) (NM\_001161330) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Slingshot homolog 1 (SSH1) (NM_001161330) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Slingshot homolog 1
Synonyms:	SSH1L
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RC228537 representing NM\_001161330  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCCCTGGTGACCCTGCAGCGCTCGCCACGCCAGCGCCCTCCTCCTCGCCAGCAACAGCGAGT  
 TGGAGGCTGGCAGCGAAGAAGATCGAAAATTAACCTCAGCTTAAGTGAGAGCTTTTTCATGGTGAAAGG  
 CGCAGCCCTTTCTTACAAACAGGGAAGCAGCCCTCAAGGCCAGCGGAGTCTTCAGCACCCCCACAAGCAT  
 GCAGGTGATCTGCCTCAACATCTTCAGGTGATGATCAACCTTCTGCGTTGCGAAGACAGAATCAAGCTGG  
 CAGTGGCCTGGAGAGCGCTGGCGGACCGGGTCCGGTACATGGTGGTGGTGTACAGCAGCGGGCGCCA  
 GGACACCGAGGAGAATATCTTGTGGGAGTGGACTTTTCCAGTAAGGAAAGTAAAAGCTGCACCATTGGG  
 ATGTTTCTCCGACTGTGGAGCGACAGAAAATCCACCTTGATGGAGATGGTGGTTCAGCGTGAGCACAG  
 CAGGAAGGATGCACATATTAAGCCTGTGTCTGTCCAGGCCATGTGGTCTGCCCTGCAGGTGCTTACAA  
 GGCTGCGAAGTGGCCCGAGGCACAACACTTCCCCGGGGGTAGCTCTCATCTGGGCTACCTACTAT  
 GAGAGCTGCATCAGCTCCGAGCAGAGCTGCATCAACGAGTGGAACGCCATGCAGGACCTGGAGTCTACGC  
 GGCCCGACTCCCCCGCTATTTGTGGACAAGCCCACTGAAGGGGAAAGGACCGAGCGCCTCATCAAAGC  
 CAAGCTCCGAAGCATCATGATGAGCCAGGATCTAGAAAATGTGACTTCCAAGAGATTCTGAATGAATTA  
 GAGAAACAGATGAATTGTAACCTGAAGGAACTCAAGGAATTTATAGACAATGAGATGCTACTTATCTTGG  
 GACAGATGGACAAGCCCTCCCTTATCTTCGATCATCTTTATCTCGGCTCTGAATGGAATGCATCCAATCT  
 GGAGGAACTGCAGGGCTCAGGGTTGATTACATTTTAAATGTTACCAGAGAAATCGATAATTTTTTCT  
 GGCTTATTTGCATATCATAACATCCGAGTCTACGATGAAGAGACCACAGACCTCTCGCCACTGGAATG  
 AAGCGTATCATTATAAAACAAAGCGAAGAGGAACCATTCCAAGTCCCTGGTGCATTGCAAAATGGGCGT  
 AGTTCGCTCGGCCCTCCACAGTCATAGCCTATGCAATGAAGGAATTCGGCTGGCCTCTGAAAAAGCATAT  
 AACTATGTAAAGCAGAAGCGCAGCATCACGCGCCCAACGCGGGCTTTATGAGGCAGCTGTCTGAGTATG  
 AAGGCATCTTGGATGCAAGCAAACAGCGGCACAACAAGCTGTGGCGTCAGCAGACAGACAGCAGCCTCCA  
 GCAGCCTGTGGATGACCCTGCAGGACCTGGCGACTTCTTCCAGAGACCCAGATGGCACCCCGAAAGC  
 CAGCTGCCCTTCTGGATGATGCCGCCAGCCGGCTTAGGGCCCCCTCCCCTGCTGTTCCGGCGAC  
 TCTCAGACCCCTTCTGCCTTCCCCTGAGGATGAAACTGGCAGCTTGGTCCACCTGGAGGATCCGGAGAG  
 GGAGGCTCTGTTGAGGAAGCTGCTCCACCTGCAGAGGTGCACAGGCCGCCAGACAGCCCCAGCAAGGT  
 TCCGGACTCTGTGAGAAGGATGTGAAGAAGAACTAGAGTTTGGGAGTCCAAAGGTCGGAGCGGCTCCT  
 TGCTGCAGGTGGAGGAGACGAAAGGGAGGAGGCCTGGGAGCAGGGAGGTGGGGCAGCTTCCAACCCA  
 GCTCGATCAAAACCTGCTCAACTCGGAGAACCTAAACAACAACAGCAAGAGGAGCTGTCCAACGGCATG  
 GAGGTAGGCAGAGCCCGCCTGCAGGGTGGCACACCCCATCCCTTCCATCCCCTCTAATTGGCCTACCT  
 CAGCCTCTGTAGTAGGGACTACAGGCACCCGCCACACCCAGCTGATTTTTTCTATTGTCTCTCTCTG  
 GGCCCCAGCTCCCATCTCCAGGGACCTGAGGGTCTTTTCACAGGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAAGTTTAA

**Protein Sequence:** >RC228537 representing NM\_001161330  
Red=Cloning site Green=Tags(s)

MALVTLQRSPTPSAASSASNSELEAGSEEDRKLNLSLSEFFMVKGAALFLQGGSSPQQQRSLQHPHKH  
 AGDLPQHLQVMINLLRCEDEKIKLAVRLESADRVRYMVVYSSGRQDTEENILLGVDFSSKESKSTIG  
 MYLRLWSDTKIHLDDGGFVSVSTAGRMHIFKPVSVQAMWSALQVLHKACEVARRHNYFPGGVALIWATYY  
 ESCISSEQSCINEWNAMQDLESTRPDPALFVDKPTEGERTERLIKAKLRSIMMSQDLENTSKEIRNEL  
 EKQMNCNLKELKEFIDNEMLLILGQMDKPSLIFDHLYLGEWNASNLEELQSGVDYILNVTREIDNFFP  
 GLFAYHNIIRVYDEETDLLAHWNEAYHFINKAKRNHCKLVHCKMGVSRSASTVIAYAMKEFGWPLEKAY  
 NYVKQKRSITRPNAGFMRQLSEYEGILDASKQRHNKLWRQQTDSLQPPVDDPAGPGDFLPETPDGTPES  
 QLPFLDDAAQPLGPPLPCCFRRLSDPLLPSPEDETGSLVHLEDPEREALLEEAAPAEVHRPARQPQQG  
 SGLCEKDVKKLEFGSPKGRSGLLQVEETEREEGLGAGRWQLPTQLDQNLNSENLNNSKRSCPNMG  
 EVGRARPAGWHTPSLPSHSNWPTSASVVGTTGTRHHTQLIFFYCLLWAPSSHLQGPESFTG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8073\\_c03.zip](https://cdn.origene.com/chromatograms/mk8073_c03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001161330

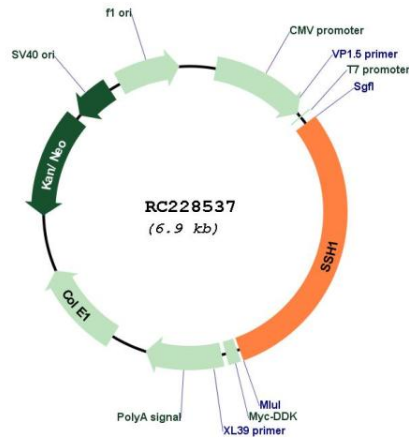
**ORF Size:** 2076 bp

**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](#)

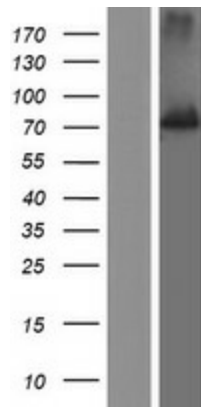
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<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>	<u><a href="#">NM_001161330.2</a></u>
<b>RefSeq ORF:</b>	2079 bp
<b>Locus ID:</b>	54434
<b>UniProt ID:</b>	<u><a href="#">Q8WYL5</a></u>
<b>Cytogenetics:</b>	12q24.11
<b>Protein Families:</b>	Druggable Genome, Phosphatase
<b>Protein Pathways:</b>	Regulation of actin cytoskeleton
<b>MW:</b>	77.2 kDa
<b>Gene Summary:</b>	The protein encoded by this gene belongs to the slingshot homolog (SSH) family of phosphatases, which regulate actin filament dynamics. The SSH proteins dephosphorylate and activate the actin binding/depolymerizing factor cofilin, which subsequently binds to actin filaments and stimulates their disassembly. Cofilin is inactivated by kinases such as LIM domain kinase-1 (LIMK1), which may also be dephosphorylated and inactivated by SSH proteins. The SSH family thus appears to play a role in actin dynamics by reactivating cofilin proteins. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Aug 2011]

Product images:



Circular map for RC228537



Western blot validation of overexpression lysate (Cat# [LY431565]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228537 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).