

## Product datasheet for **RG228546**

### Slingshot homolog 1 (SSH1) (NM\_001161331) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Slingshot homolog 1 (SSH1) (NM_001161331) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Slingshot homolog 1
Synonyms:	SSH1L
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>RG228546 representing NM\_001161331  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGCCAGAGCTCGGAGGCAGTTGTAGGGAGCGTTAGAGATGTGAGCACTGCAGCCACGAACCTCTTTT  
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CATCCCTTCCATCCCACTCTAATTGGCCTACCTCAGCCTCTGTAGTAGGGACTACAGGCACCCGCCACCA  
CACCCAGCTGATTTTTTCTATTGTCTCTCTGGGCCCCAGCTCCCATCTCCAGGGACCTGAGGGTCT  
TTCACAGGG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG228546 representing NM\_001161331  
 Red=Cloning site Green=Tags(s)

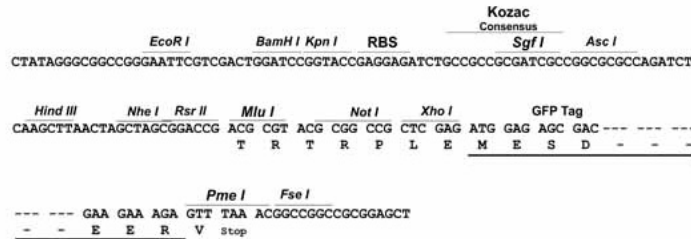
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GGVALIWATYYESCISSEQSCINEWNAMQDLESTRPDPALFVDKPTEGERTERLIKAKLRSIMMSQDLE
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NVTREIDNFFPGLFAYHNIRVYDEETDLLAHWNEAYHFINKAKRNHCLKLVHCKMGVSRSASTVIAYAM
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LPETPDGTPESQLPFLDDAAQPLGPPLPCCFRRLSDPLLSPPEDETGSLVHLEDPEREALLEEAAPAE
VHRPARQPQQGSLCEKDVKKLEFGSPKGRSGSLQVEETEREEGLGAGRWQLPTQLDQNLNSENLN
NNSKRSCPNGMEVGRARPAGWHTPSLPSHSNWPTASVVGTTGTRHHTQLIFFYCLLWAPSSHLLQGPEGS
FTG
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TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**ACCN:** NM\_001161331

**ORF Size:** 2109 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\\_001161331.1](#), [NP\\_001154803.1](#)

**RefSeq Size:** 2459 bp

**RefSeq ORF:** 2112 bp

**Locus ID:** 54434

**UniProt ID:** [Q8WYL5](#)

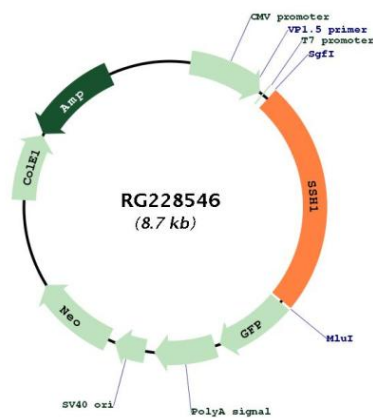
**Cytogenetics:** 12q24.11

**Protein Families:** Druggable Genome, Phosphatase

**Protein Pathways:** Regulation of actin cytoskeleton

**Gene Summary:** 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 RG228546