

Product datasheet for **RG209121**

Slingshot homolog 1 (SSH1) (NM_018984) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slingshot homolog 1 (SSH1) (NM_018984) 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)
ORF Nucleotide Sequence:	>RG209121 representing NM_018984 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCCTGGTGACCCTGCAGCGCTCGCCACGCCAGCGCCGCCTCCTCCTCGGCCAGCAACAGCGAGT
TGGAGGCTGGCAGCGAAGAAGATCGAAAATTAACCTCAGCTTAAGTGAGAGCTTTTTCATGGTAAAGG
CGCAGCCCTCTTCTTACAACAGGGAAGCAGCCCTCAAGGCCAGCGGAGTCTTTCAGCACCCCAAGCAT
GCAGGTGATCTGCCTCAACATCTTCAGGTGATGATCAACCTTCTCGGTTGCGAAGACAGAATCAAGCTGG
CAGTGCCTGGAGAGCGCTGGGCGG[AT]CCGGTCCGGTACATGGTGGTGGTACAGCAGCGGGCC
CCAGGACACCGAGGAGAATATCTTGGTGGGAGTGGACTTTCCAGTAAGGAAAGTAAAAGCTGCACCATT
GGGATGGTTCTCCGACTGTGGAGCGACACGAAAATCCACCTTGATGGAGATGGTGGGTTACGCGTGAGCA
CAGCAGGAAGGATGCACATATTTAAGCCTGTGTCTGTCCAGGCCATGTGGTCTGCCTGCAGGTGCTTCA
CAAGGCCCTGCGAAGTGGCCCGGAGGCACAACACTTCCCCGGGGTGTAGCTCTCATCTGGGCTACCTAC
TATGAGAGCTGCATCAGCTCCGAGCAGAGCTGCATCAACGAGTGGAAACGCCATGCAGGACCTGGAGTCTA
CGCGGCCCGACTCCCCGCGCTATTTGTGGACAAGCCACTGAAGGGGAAAGGACCGAGCGCCTCATCAA
AGCCAAGCTCCGAAGCATCATGATGAGCCAGGATCTAGAAAATGTGACTTCCAAAGAGATTCGTAATGAA
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AGCCAGCTGCCCTTCTTGGATGATGCCGCCAGCCCGCTTAGGGCCCCCTCCCTGCTGTTCCGGC
 GACTCTCAGACCCCTTCTGCCTTCCCCTGAGGATGAACTGGCAGCTTGGTCCACCTGGAGGATCCGGA
 GAGGGAGGCTCTGTTGGAGGAAGCTGCTCCACCTGCAGAGGTGCACAGGCCGGCCAGACAGCCCCAGCA
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 CCGCGCTCCACGAGCTGGGCCCTGGTTATGCCAGCCAGGCCGGGAGTGATGAGAAGTCAGAGGCCGC
 CCCCCTTCAATTGAAGGAGGCTCACTGAAGAGCCCCCTCCTTTCTTCTACCGCTGGACCACACCAGT
 AGTTTCTCAAAGACTTTCTGAAGACCTCTGCTACACCCACCTCCTCTTCCATGAGCTCCAACCTGA
 CCCGGAGCTCCAGCAGCGATAGCATCCACAGTGTCCGTGGGAAGCCCGGGCTGGTGAAGCAGCGGACACA
 GGAGATTGAGACCCGGCTCCGGCTGGCGGGCTCACCGTCTTCCCCACTGAAGCGTCCACTCTCTT
 GCCAAGCTGGGGAGTCTACCTTCTCAACGGAAGACCTGTCCAGTGAGGCTGACCCGTCCACCGTCTG
 ACTCCAGGACACCACTTTGAGTGAATCTTCTTTCATGAGCCCCAGGGAACCCCGAGGACCCAGC
 TGCAACCTCCAAACCATCAGGAAACCCGCCCCAGAAACTTAAAGAGCCCTTCGTGGATGAGCAAAAGC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG209121 representing NM_018984
 Red=Cloning site Green=Tags(s)

MALVTLQRSPTPSAASSASNSELEAGSEEDRKLNL.SLSEFFMVKGAALFLQQGSSPQGQRSLQHPKH
 AGDLPQHLQVMINLLRCEDRIKLAVRLESAXXRVRYMVVYSSGRQDTEENILLGVDSSKESKSTI
 GMVLRRLWSDTKIHLDGDGGFVSVTAGRMHIFKPVSVQAMWSALQVLHKACEVARRHNYFPGGVALIWATY
 YESCISSEQSCINEWNAMQDLESTRPDPALFVDKPTGERTERLIKAKLRSIMMSQDLENVTSKEIRNE
 LEKQMNCNLKELKEFIDNEMLLILGQMDKPSLIFDHLYLGEWNASNLEELQSGVDYILNVTREIDNFF
 PGLFAYHNIRVYDEETDLLAHWNEAYHFINKAKRNHNSKCLVHCKMGVSRASSTVIAAYAMKEFGWPLEKA
 YNYVKQKRSITRPNAGFMRQLSEYEGILDASKQRHNKLWRQQTDSLQQPVDDPAGPGDFLPETPDGTPE
 SQLPFLDDAAQPLGPPLPCCFRRLSDPLLPSPEDETGSLVHLEDPEREALLEEAAPAEVHRPARQPQQ
 GSGLCEKDVKKLEFGSPKGRSGSLLQVEETEREEGLGAGRWQLPTQLDQNLNSENLNNSKRSCPNG
 MEDDAIFGILNKVKPSYKSCADCMYPTASGAPEASRERCEDPNAPAICTQPAFLPHITSSPVAHLASRSR
 VPEKPASGPTPEPPFLPPAGSRRADTSGPGAGAALPASPALLEPSRETPKVLPSLLLNKSHCDKNPPST
 EVVIKEESSPKKMKPAKDLRLLFSNESEKPTTNSYLMQHQESIQLQKAGLVRKHTKELERLKSVPADP
 APPSRDGPASRLEASIPESQDPAALHELGPLVMPSQAGSDEKSEAAPASLEGGSLKSPPPFFYRLDHTS
 SFSKDFLKTICYTPTSSSMSSNLTRSSSDSIHSVRGKPLVKQRTQEIETRLRLAGLTVSSPLKRSHSL
 AKLGSLTFSTEDLSSEADPSTVADSQDTLSESSFLHEPQGTPRDPAATSKPSGKPAPENLKSWSMSKS

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_018984

ORF Size: 3150 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_018984.3](#), [NP_061857.3](#)

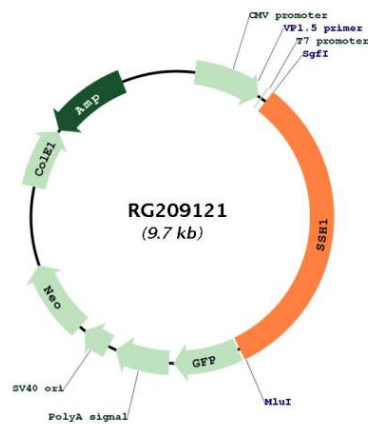
RefSeq Size: 8537 bp

RefSeq ORF: 3150 bp

Locus ID: 54434
UniProt ID: [Q8WYL5](#)
Cytogenetics: 12q24.11
Domains: DSPc
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 RG209121