

Product datasheet for **MG211549**

Stk36 (BC043103) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Stk36 (BC043103) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Stk36
Synonyms:	FU, MGC58023, B930045J24
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG211549 representing BC043103 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAAAAGTACCACGTTTTGGAGATGATTGGAGAAGGCTCTTTGGGAGAGTGTATAAGGGCCGAAAAA
AATACAGTGCTCAGGTGGTGGCCTTGAAGTTCATCCCCAACTGGGGCGCTCAGAGAAAGAGCTGAGGAA
TCTGCAACGAGAGATTGAAATCATGCGGGTCTGTGGCATCCCAACATTGTGCATATGCTCGACAGCTTT
GAGACTGACAAAGAGGTGGTGGTGGTACAGACTACGCTGAAGGAGAAGCTTTTCAGATTCTGGAAGATG
ATGAAAAACTTCTGAAGACCAGGTTCCAGCCATCGCTGCCAGTTGGTGTGAGCTCTGTACTACCTGCA
TTCCACCGCATCCTACACCGCGACATGAAACCGCAGAACATTCTTCGCCAAGGGTGGTGGCATTAA
CTTTGTGACTTTGGATTCGCCGAGCTATGAGCACCAACACCATGGTGTGACTCGATCAAGGCACAC
CGCTCTATATGTCTCCAGAGCTGGTGGAGGAGCGACCATATGACCACACCGCAGACCTCTGGTCTGTGGG
CTGCATCTGTATGAGCTGGCTGTGGCAGCCTCCCTTCTACACCACAGCATCTTTCAGCTGGTTAGC
CTCATTCTCAAGGACCTGTGCGCTGGCCTCCACCATAGTTCTGTGCTCAAGAAGCTTCTTGCAGGGGC
TGCTACCAAGGACCCCGCAGCGTCTGTCTGGCCAGACCTTTACATCACCCCTTTATTGCCGGCCG
TGTCACCATCATAACTGAACAGCAGGCTCCGATTTGGCACCCCAATTTACTAGTCGCCTACCCCCAGAA
CTTCAGGCTCTCAAGGATGAACAGGCGCATCGGCTCGCACCAAGGTAACCAAGTCTCGATCCTGGCC
AGGCTGTAAACTCATGGCTGAAGAAGCCAAGCAGAAGGAAGACCAAAAATGCAGGATCTGCCCTTGAACA
AGAAGACGGGCTCTGCAAGGTGACACCCAGCACAGCCCCGTCGCTGGACTAAAGGCCACTCCTCAGGAG
TCAAGCCTCTGGCTGGTATACTGGCTTCAAGAAATGAAGAACAAGTGGGAAGACTGGGGGCTGGAGAAG
CACCCCGTACCTCTCGGAAAACCATCAACCTGGAGTGTGAACAAGGCTTCCAGAGCCGAGGCCAGA
GGCGATGGGCCGAGAGCACTGATGTAGTGGATCCTGAAAATGAGGAGCCAGACAGTGTATGAGTGG
CAACGCCTACTAGAGACCAGCGAGCCTGGGCTGTGCAGCTGAAGTCCCCCTCACCTGTTGTGTAACC
CTGACTTCTGCCAGCGCATCCAGAGTCACTGCGCGGGACTGGCAGCAGATCCTGAAAGCGTCTGGA
TGGTGTGCCACCTCTCCTGTACTCCGCATCTGAGTGTCTCTATCCAGTGCATGACTCTGTG



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CTCTTGTATTCCTTCTGCCAGGAGGCAGGACTGCCTGAGCTGCCTCTCAGCCTTCTTAGGTACAGCCAGG
 AGAGTAGCAGCATCCAGCAGCAACCTTGGTATGGGGCGCTTTACGGGACCTGGTGGCTGTGGTTACGGC
 CTACTTTTCGTGCACCTTCAATCTGGAGAGGAGCCAGACAGGTGACAGCCTACAGGTGTTTCAGGAGGCC
 GCCAGCCTCTTTTTGGACCTGTTGGGGAAGCTGCTGGCCCAATCAGATGATTCCGAGCAGACATTTCCAA
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 CAGCTTCTTTCCACACACCACCAGGAGCCCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA
 TACCTGGAGCCATCTCTTCTGCCCTGGCAGCCATGTGTACTGCTCCTGTGGGGCTGCCAGCTGTTGGGA
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 TTTCCGGCTCCAAGATCTGCCTTCAGGGATGGAGAAGCTGGGCAGTGAAGTGTACTCTCTTTACCCACT
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 AGCCTGGCCTGATCAGGGATGTGGTGGTTTCAAGGTTGTGGACATTCTGTGGCACCCTTTTCCATGGC
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 CCAGACTGGACACTGATTTACCCCAAGGCATGGCAGCCTTGGTGAAGCTGGCCATGGCCATCTTACCC
 AGGAGTCCCAGTTATGCCTGAGCCACCTGTCCAGCATGGCAGTGTCTCATGCTGACCTGAAGCACCT
 GCTTTACCCAGCTTCTTGACACCTGAGCCAGGCGCCGAGGGGCCGAGTTTCTCCCGTTGTGGTG
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 TGGCTGACCTCAGGGCCTCGGAAGTGGTAGTCTGCCTGCTGCAGTCTGCTGCCACCACCTTTCGTTGTT
 ACAAGCAGAGCTGCCATTGGCCTCCTTACACGCCTGGCCCTCACGGATTCTGCCTCTCTCAGCGGCCG
 TGCTACCT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG211549 representing BC043103

Red=Cloning site Green=Tags(s)

MEKYHVLEMIGEGSFGRVYKGRKKYSAQVVALKFIPKLRSEKELRNLQREIEIMRGLWHPNIVHMLDSF
 ETDKEVVVVTDYAEGLFQILEDDGKLPEDQVQAIAAQLVSALYYLHSHRILHRDMKPNILLAKGGGKIK
 LCDDFGFARAMSTNTMVLTSIKGTPLYMSPPELVEERPYDHTADLWSVGCILYELAVGTPPFYTTTIFQLVS
 LILKDPVRWPSTISSCFKNFLQGLLTKDPRQRLSWPDLLHHPFIAGRVTIITEPAGSDLGTPFTSRLPPE
 LQVLKDEQAHLAPKGNQSRILRQACKLMAEEAKQKEDQNAGSALEQEDGLCKVTPSTAPVPGLKATPQE
 SLLLAGILASEMKNWEDWGAGEAPRTSRENHINLECEQGFPEPRPEAMGRQSTDVVDPENEEPDSDEW
 QRLLLETSEPGPVQLSPLTLLCNPDFCQRISQLRGTGEQILKGVLDGVSHLLPVLRLSLLSSCNDSDV
 LLYSFCQEAGLPELPLSLLRYSQESSIIQQPWY GALLRDLVAVVQAYFSCTFNLERSQTGDSLQVFQEA
 ASLFLDLLGKLLAQSDDEQTFRRDSL MCFAVLCEAVDGNWVSKAFYSLLTTQRAVLDGLLHGLTVP
 QLPFHPTPPGAPQVSQPLREQSEDPGAISSALAAMCTAPVGLPSCWDAKEQVSWHLANQLTEDSSQLRPS
 LISGLRHHVLC LHLKVL YACCYISERLCHILGQEPLALESLMLVQGVKADWEEESTEVALYLLSLLV
 FRLQDLPSGMEKLGSEVATLFTTHSHVSLVNAACLGLQGLGQQGVTFDLQPREWIAAAHALSAPAEVRL
 TPPYSCGFYDGLLILLLQLLMQKPG LIRDVVGSEVWTILWHRF SMALRLPEEVS AQEDDLLSSPSSLE
 PDWTLISPOGMAALLSLAMAI FTQESQLCLSHLSQHGSVLM LTLKHLSPSFLHHL SQAPQGPEFLPVV
 LSVCKLLCFPFALDVDADLLVGLADLRASEVVVCLLQVCCCHLSLLQALPIGLLTRLAL TDSASLSGR
 SLP

TRTRPLE – GFP Tag – V

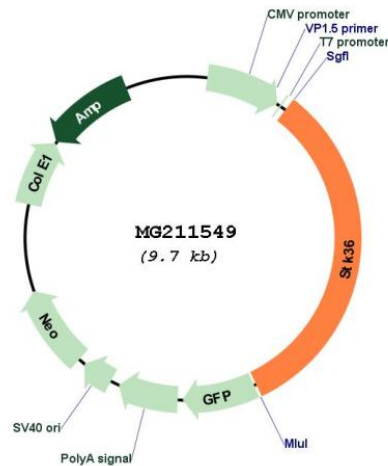
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: BC043103

ORF Size: 3159 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:	<ol style="list-style-type: none">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:	<u>BC043103.1</u>
RefSeq Size:	3378 bp
RefSeq ORF:	3161 bp
Locus ID:	269209
Cytogenetics:	1 C4
Gene Summary:	Serine/threonine protein kinase which plays an important role in the sonic hedgehog (Shh) pathway by regulating the activity of GLI transcription factors. Controls the activity of the transcriptional regulators GLI1, GLI2 and GLI3 by opposing the effect of SUFU and promoting their nuclear localization. GLI2 requires an additional function of STK36 to become transcriptionally active, but the enzyme does not need to possess an active kinase catalytic site for this to occur. Required for postnatal development, possibly by regulating the homeostasis of cerebral spinal fluid or ciliary function. Essential for construction of the central pair apparatus of motile cilia.[UniProtKB/Swiss-Prot Function]