

## Product datasheet for MR211549

### Stk36 (BC043103) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Stk36 (BC043103) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Stk36
Synonyms:	FU, MGC58023, B930045J24
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR211549 representing BC043103 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAAAAAGTACCACGTTTTGGAGATGATTGGAGAAGGCTCTTTGGGAGAGTGTATAAGGGCCGAAAA  
AATACAGTGCTCAGGTGGTGGCCTTGAAGTTCATCCCAAAGTGGGGCGCTCAGAGAAAGAGCTGAGGAA  
TCTGCAACGAGAGATTGAAATCATGCGGGTCTGTGGCATCCCAACATTGTGCATATGCTCGACAGCTTT  
GAGACTGACAAAGAGGTGGTGGTGGTACAGACTACGCTGAAGGAGAAGCTTTTCAGATTCTGGAAGATG  
ATGAAAAACTTCTGAAGACCAGGTTACAGCCATCGCTGCCAGTTGGTGTGAGCTCTGTACTACCTGCA  
TTCCACCGCATCCTACACCGCGACATGAAACCGCAGAACATTCTTCTCGCCAAGGGTGGTGGCATTAA  
CTTTGTGACTTTGGATTCGCCCCGAGCTATGAGCACCAACACCATGGTGTGACTGATCAAGGCACAC  
CGCTCTATATGTCTCCAGAGCTGGTGGAGGAGCGACCATATGACCACACCGCAGACCTCTGGTCTGTGG  
CTGCATCTGTATGAGCTGGCTGTGCGCACGCCTCCCTTCTACACCACAGCATCTTTCAGCTGGTTAGC  
CTATTCTCAAGGACCTGTGCGCTGGCCCTCCACCATAGTTCTGTCTCAAGAAGTCTTTCAGGGGGC  
TGCTACCAAGGACCCCGCAGCGTCTGTCTGGCCAGACCTTACATCACCCCTTTATTGCCGGCCG  
TGTACCATCATAACTGAACAGCAGGCTCCGATTTGGCACCCCACTTACTAGTCGCCTACCCCCAGAA  
CTTCAGGCTCTCAAGGATGAACAGGCGCATCGGCTCGCACCAAGGTAACCAAGTCTCGATCCTGCGCC  
AGGCTGTAAACTCATGGCTGAAGAAGCCAAGCAGAAGGAAGACCAAAAATGCAGGATCTGCCCTTGAACA  
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TCAAGCCTCTGGCTGGTATACTGGCTTCAAGAAATGAAGAACAAGTGGGAAGACTGGGGGCTGGAGAAG  
CACCCCGTACCTCTCGGGAAAACCATCAACCTGGAGTGTGAACAAGGCTTCCAGAGCCGAGGCCAGA  
GGCGATGGGCCGAGAGCACTGATGTAGTGGATCCTGAAAATGAGGAGCCAGACAGTGTATGAGTGG  
CAACGCCTACTAGAGACCAGCGAGCCTGGGCTGTGCAGCTGAAGTCCCCCTCACCTGTTGTGTAACC  
CTGACTTCTGCCAGCGCATCCAGAGTCACTGCGCGGGACTGGCAGCAGATCCTGAAAGCGTCTGGA  
TGGTGTGCCACCTCTTCTGTACTCCGCATCTGAGTGTCTCTATCCAGTGCATGACTCTGTG



CTCTTGATTCTTCTGCCAGGAGGCAGGACTGCCTGAGCTGCCTCTCAGCCTTCTTAGGTACAGCCAGG  
 AGAGTAGCAGCATCCAGCAGCAACCTTGGTATGGGGCGCTTTACGGGACCTGGTGGCTGTGGTTACGGC  
 CTACTTTTCGTGCACCTTCAATCTGGAGAGGAGCCAGACAGGTGACAGCCTACAGGTGTTTCAGGAGGCC  
 GCCAGCCTCTTTTTGGACCTGTTGGGGAAGCTGCTGGCCCAATCAGATGATTCGAGCAGACATTTCCAA  
 GGGATAGCCTTATGTGCTTTGCTGTCTTGTGTGAAGCTGTGGACGAAACAGCTGGGCCGTCTCCAAAGC  
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 CAGCTTCTTTCCACACACCACCAGGAGCCCAACAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA  
 TACCTGGAGCCATCTCTTCTGCCCTGGCAGCCATGTGTACTGCTCCTGTGGGGCTGCCAGCTGTTGGGA  
 TGCCAAGGAGCAGGTCTCTTGGCATTGGCCAACCAGCTAACTGAAGACAGCAGCCAACCTGAGGCCATCC  
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 TTTCCGGCTCAAGATCTGCCTTCCAGGATGGAGAAGCTGGGCAGTGAAGTGTACTCTCTTTACCCACT  
 CACATGTCGTCTCTTGTGAATGCGGCAGCCTGTCTTAGGACAGCTGGTGCAGAGGGGTGACCTT  
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 AGCCTGGCCTGATCAGGGATGTGGTGGTTGAGAGGTGTGGACATTCTGTGGCACCCTTTTCCATGGC  
 CCTGAGGCTGCCCGAGGAGGTGTCTGCCAGGAAGACGACCTGCTACTATCAAGTCCCTCCAGCCTAGAG  
 CCAGACTGGACACTGATTTACCCCAAGGCATGGCAGCCTTGCTGAGCCTGGCCATGGCCATCTTACCC  
 AGGAGTCCCAGTTATGCCTGAGCCACCTGTCCAGCATGGCAGTGTCTCATGCTGACCTGAAGCACCT  
 GCTTTACCCAGCTTCTTGACACCTGAGCCAGGCGCCGAGGGGCCGAGTTTCTCCCGTTGTGGTG  
 CTCTCCGTGTGCAAGCTGCTCTGCTTCCCTTTGCCCTGGATGTGGATGCTGACCTCCTGTAGGTGCT  
 TGGCTGACCTCAGGGCCTCGGAAGTGGTAGTCTGCCTGCTGCAGTCTGCTGCCACCACCTTTCGTTGTT  
 ACAAGCAGAGCTGCCATTGGCCTCCTTACACGCCTGGCCCTCACGGATTCTGCCTCTCTCAGCGGCCG  
 TGCTACCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR211549 representing BC043103  
 Red=Cloning site Green=Tags(s)

MEKYHVLLEMIGESFGRVYKGRKKYSAQVVALKFIPKLRSEKELRNLQREIEIMRGLWHPNIVHMLDSF  
 ETDKEVVVVDYAEGLFQILEDDGKLPEDQVQAIQAQLVSALYYLHSHRILHRDMKPNILLAKGGGKIK  
 LCDDFGFARAMSTNTMVLTSIKGTPLYMSPPELVEERPVDHTADLWSVGCILYELAVGTPPFYTTISIFQLVS  
 LILKDPVRWPSTISSCFKNFLQGLLTKDPRQRLSWPDLHHPFIAGRVTIITEPAGSDLGTPFTSRLPPE  
 LQVLKDEQAHLAPKGNQSRILRQACKLMAEAKQKEDQNAGSALEQEDGLCKVTPSTAPVPLKATPQE  
 SLLLAGILASEMKNWEDWGAGEAPRTSRENHINLECEQGFPEPRPEAMGRQSTDVVDPENEEPDSDDEW  
 QRLLLETSEPGVQLKSPLTLLCNPDFCQRIQSQRGTGEQILKGVLDGVSHELLPVLRILSLLSSCNDSDV  
 LLYSFCQEAPELPLSLLRYSQESSIQQQPWYGALLRDLVAVVQAYFSCTFNLERSQTGDSLQVFQEA  
 ASLFLDLLGKLLAQSDDEQTFRRDSLMLCFAVLCEAVDGNWAVSKAFYSSLLTTQRAVLDGLLHGLTVP  
 QLPFHTPPGAPVVSQPLREQSEDPGAISSALAAMCTAPVGLPSCWDAKEQVSWHLANQLTEDSSQLRPS  
 LISGLRHHVLCVLLKVLVYACCYISERLCHILGQEPLALESLMLVQGVKQVADWEESTEVALYLLSLLV  
 FRLQDLPSGMEKLGSEVATLFTSHVSVLVNAAACLLGQLGQGVTFDLQPREWIAAAHALSAPAEVRL  
 TPPYSCGFYDGLLILLQLMQGKPLIRDVVGSEVWTILWHRFSLALRPEEVSQAQEDLLSSPSSLE  
 PDWTLISPOGMAALLSLAMAIFTQESQLCLSHLSQHGSVLMMLTLKHLSPSFLHHLSPAPQGFPLPVV  
 LSVCKLLCFPFALDVEDLVLVGLADLRASEVVCCLLVQCCHHLSLLQALPIGLLTRLALTDASASLSGR  
 SLP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mm9044\\_f07.zip](https://cdn.origene.com/chromatograms/mm9044_f07.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**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:**

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:** [BC043103.1](#)

**RefSeq Size:** 3378 bp

**RefSeq ORF:** 3161 bp

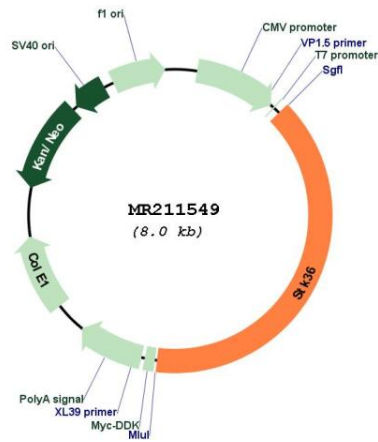
**Locus ID:** 269209

**Cytogenetics:** 1 C4

**MW:** 116.2 kDa

**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]

**Product images:**



Circular map for MR211549