

Product datasheet for **MG222908**

Sufu (NM_015752) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sufu (NM_015752) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Sufu
Synonyms:	Su(fu)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG222908 representing NM_015752
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGAGCTGCGGCCCTAGCGTCGCCCCCGTCCCGCCGCGCCCGGCCCTCTGGCCCTAGTGCCCTC
 CGGCCTTTGCTTCACTCTTTCCCGGGACTGCACGCCATCTACGGAGAGTGTGCGCCGCTTACCTGA
 CCAGCCGAACCCGCTCCAGGTTACCGCTATCGTCAAGTACTGGTTGGTGGTCCGGACCCCTTGACTAT
 GTTAGCATGTACAGGAACATGGGGAGTCCCTTGCACAACATCCCTGAGCACTGGCACTACATCAGCTTTG
 GCCTGAGTGATCTCTATGGTGACAACAGAGTCCATGAGTTTACAGGAACAGACGGACCAAGTGGATTGG
 CTTTGAGTTGACGTTTCGTCTGAAGAGAGAAAAGTGGGGAGTCTGCCCCACCAACATGGCCAGCAGAGCTG
 ATGCAGGGCCTAGCCGATATGTCTCCAGTCAGAGAACACCTTCTGTAGCGGGGACCATGTGTCTTGGC
 ACAGCCCTTTGGATAACAGTGAGTCAAGAATTCAGCACATGCTGCTGACGGAGGACCCACAGATGCAGCC
 TGTGCGGACACCCCTTTGGGTAGTGACTTTCCTCCAGATTGTTGGTGTCTGCACTGAGGAGTTACATTCA
 GCCCAACAGTGGAACGGGCAGGGCATCCTGGAACACTACGGACAGTGCCCATTCGCTGGCGGTCCCTGGC
 TGATAACTGACATGCGGGGGGAGAAACATATTTGAGATCGATCCGCACCTGCAAGAGAGAGTTGACAA
 AGGCATTGAGACAGACGGTTCTAACCTGAGCGCGTCACTGCCAAGTGTGCCTGGGATGACCTCAGCCGG
 CCTCCGGAGGATGAAGAGGATAGCCGGAGCATCTGCCTCGGCACACAGCCTCGGAGGCTGTCTGGCAAAG
 ACACAGAGCAGATCCGGGAGACCCTGAGGCGGGGACTGGAGATTAACAGCAAACCTGTCTTCCACCAAT
 CAATTCTCAGCGACAGAACGGCCTCACCCACGACAGGGCTCCGAGCCGCAAGGACAGTTTGGGCAGCGAC
 AGCTCCACGGCCATCATCCCCACGAGCTGATCCGCACACGGCAGCTCGAGAGCGTGCATCTAAAATTTA
 ACCAAGAGTCGGGAGCCCTCATCCCTCTCTGCCTAAGGGGCGAGACTCCTACATGGCCGGCACCTCACCTA
 CAAGAGTATCACAGGCGACATGGCCATCACGTTTGTGTCCACGGGAGTGAAGGCCCTTTGCCACTGAG
 GAACACCCGTATGCAGCTCACGGACCCTGGTTACAAATCTGTTGACAGAAGAGTTTGTAGAGAAGATGT
 TGGAGGACTTAGAAGATCTAACCTCTCCAGAGGAATTTAACTTCCCAAAGAGTACAGCTGGCCTGAGAA
 GAAACTCAAAGTGCATTCTCCCGACGTGGTGTTCGACAGTCCACTGCAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG222908 representing NM_015752
 Red=Cloning site Green=Tags(s)

MAELRPSVAPGPAAPPASGPSAPPAFASLFPPGLHAIYGECRRLYPDQPNPLQVTAIVKYWLGPDPLDY
 VSMYRNMGSPSANIPEHWHYISFGLSDLYDNRVHEFTGTDGSPSGFELTFRLKRETGESAPPTWPAEL
 MQGLARYVVFQSENTFCSGDHVSWHSPLDNSESRIQHMLLTEDPQMOPVTRPFGVVTFLLQIVGVCTEELHS
 AQQWNGQIPELLRTVPIAGGPWLITDMRRGETIFEIDPHLQERVDKGIETDGSNL SGVSAKCAWDDL SR
 PPEDEEDSRISICLGTQPRRLSGKDEQIRETLRRLGLEINSKPVLPPINSQRQNGLTHDRAPSRKDSLGS
 SSTAIIIPHELIRTRQLESVHLKFNQESGALIPLCRLRLLHGRHFTYKSIITGDMAITFVSTGVGAFATE
 EHPYAAHGPWLQILLTEEFVEKMLEDLTSPEEFKLPKEYSWPEKCLKVSIPLDVPVDFSLH

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_015752

ORF Size: 1455 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_015752.2](#), [NP_056567.2](#)

RefSeq Size: 2359 bp

RefSeq ORF: 1458 bp

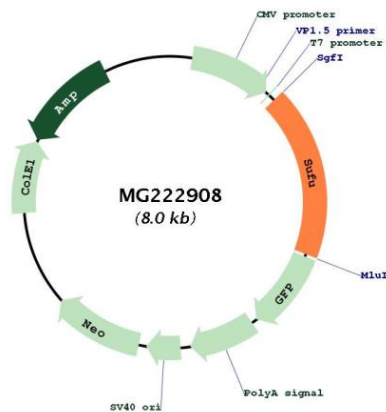
Locus ID: 24069

UniProt ID: [Q9Z0P7](#)

Cytogenetics: 19 38.85 cM

Gene Summary: Negative regulator in the hedgehog/smoothed signaling pathway (PubMed:16155214, PubMed:16459298). Down-regulates GLI1-mediated transactivation of target genes (PubMed:11960000). Part of a corepressor complex that acts on DNA-bound GLI1 (PubMed:11960000). May also act by linking GLI1 to BTRC and thereby targeting GLI1 to degradation by the proteasome (By similarity). Sequesters GLI1, GLI2 and GLI3 in the cytoplasm, this effect is overcome by binding of STK36 to both SUFU and a GLI protein (PubMed:10531011, PubMed:16459298). Negative regulator of beta-catenin signaling (PubMed:11477086). Regulates the formation of either the repressor form (GLI3R) or the activator form (GLI3A) of the full-length form of GLI3 (GLI3FL) (PubMed:10531011, PubMed:20360384). GLI3FL is complexed with SUFU in the cytoplasm and is maintained in a neutral state (PubMed:10531011, PubMed:20360384). Without the Hh signal, the SUFU-GLI3 complex is recruited to cilia, leading to the efficient processing of GLI3FL into GLI3R (PubMed:10531011, PubMed:20360384). When Hh signaling is initiated, SUFU dissociates from GLI3FL and the latter translocates to the nucleus, where it is phosphorylated, destabilized, and converted to a transcriptional activator (GLI3A) (PubMed:10531011, PubMed:20360384). Required for normal embryonic development (PubMed:16155214, PubMed:16459298). Required for the proper formation of hair follicles and the control of epidermal differentiation (PubMed:16155214, PubMed:16459298, PubMed:23034632). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG222908