

## Product datasheet for **MC216599**

### Sufu (NM\_001025391) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Sufu (NM_001025391) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Sufu
Synonyms:	Su(fu)
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC216599 representing NM\_001025391  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCGGAGCTGCGGCCCTAGCGTCGCCCCCGGTCCCGCCGCGCCCGGCCCTCTGGCCCTAGTGCCCTC  
 CGGCCTTTGCTTCACTCTTTCCCGGGACTGCACGCCATCTACGGAGAGTGTGCGCCGCTTACCTGA  
 CCAGCCGAACCCGCTCCAGGTTACCGCTATCGTCAAGTACTGGTTGGTGGTCCGGACCCCTTGGACTAT  
 GTTAGCATGTACAGGAACATGGGGAGTCTTCTGCCAACATCCCTGAGCACTGGCACTACATCAGCTTTG  
 GCCTGAGTGATCTCTATGGTGACAACAGAGTCCATGAGTTTACAGGAACAGACGGACCAAGTGGATTGG  
 CTTTGAGTTGACGTTTCGTCTGAAGAGAGAAAATGGGGAGTCTGCCCCACCAACATGGCCAGCAGAGCTG  
 ATGCAGGGCCTAGCCGATATGTCTTCCAGTCAAGAACACCTTCTGTAGCGGGGACCATGTGTCTTGGC  
 ACAGCCCTTTGGATAACAGTGAGTCAAGAATTCAGCACATGCTGCTGACGGAGGACCCACAGATGCAGCC  
 TGTGCGGACACCCCTTTGGGTAGTGACTTTCCTCCAGATTGTTGGTGTCTGCACTGAGGAGTTACATTCA  
 GCCAACAGTGGAAACGGGCAGGGCATCCTGGAACACTACGGACAGTGCCATTGCTGGCGGTCCCTGGC  
 TGATAACTGACATGCGGGCGGGGAGAAACATATTTGAGATCGATCCGCACCTGCAAGAGAGAGTTGACAA  
 AGGCATTGAGACAGACGGTTCTAACCTGAGCGCGTCACTGCCAAGTGTGCCTGGGATGACCTCAGCCGG  
 CCTCCGGAGGATGAAGAGGATAGCCGGAGCATCTGCCTCGGCACACAGCCTCGGAGGCTGTCTGGCAAAG  
 ACACAGAGCAGATCCGGGAGACCCTGAGGCGGGGACTGGAGATTAACAGCAAACCTGTCTTCCACCAAT  
 CAATTCTCAGCGACAGAACGGCCTACCCACGACAGGGCTCCGAGCCGCAAGGACAGTTTGGGCAGCGAC  
 AGCTCCACGGCCATCATCCCCACGAGCTGATCCGCACACGGCAGCTCGAGAGCGTGCATCTAAAATTTA  
 ACCAAGAGTCGGGAGCCCTCATCCCTCTCTGCCTAAGGGGCAGACTCCTACATGGCCGGCATTACCTA  
 CAAGAGTATCACAGGCGACATGGCCATCACGTTTGTGTCCACGGGAGTGAAGGCCCTTTGCCACTGAG  
 GAACACCCGTATGCAGCTCACGGACCCTGGTTACAAATCTGTTGACAGAAGAGTTTGTAGAGAAGATGT  
 TGGAGGACTTAGAAGATCTAACCTCTCCAGAGGAATTTAACTTCCCAAAGAGTACAGCTGGCCTGAGAA  
 GAAACTCAAAGTGTCCATTCTCCCGACGTGGTGTTCGACAGTCCACTGC**ACTAG**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_001025391

**Insert Size:** 1455 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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\\_001025391.2](#), [NP\\_001020562.1](#)

RefSeq Size: 4522 bp

RefSeq ORF: 1455 bp

Locus ID: 24069

UniProt ID: [Q9Z0P7](#)

Cytogenetics: 19 38.85 cM

**Gene Summary:** Negative regulator in the hedgehog/smoothened 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]

Transcript Variant: This variant (2) uses an alternate in-frame splice site in the central coding region, compared to variant 1. The encoded isoform (2) is shorter, compared to isoform 1.