

Product datasheet for **MG216928**

Smurf2 (NM_025481) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smurf2 (NM_025481) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Smurf2
Synonyms:	2810411E22Rik; AI558114; AI649275
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG216928 representing NM_025481
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCTAACCCCGGAGGCCGGAGGAACGGGCCCGTCAAGCTGCGCCTGACAGTACTCTGTGCAAAAACT
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 GGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG216928 representing NM_025481
 Red=Cloning site Green=Tags(s)

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MSNPGGRRNGPVKLRLTVLCAKNLVKKDFFRLPDPFAKVVDGSGQCHSTDTVKNTLDPKWNQHYDLYIG
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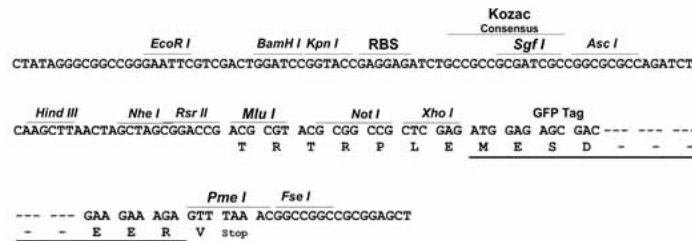
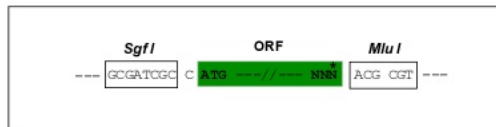
TRTRPLE - GFP Tag - V

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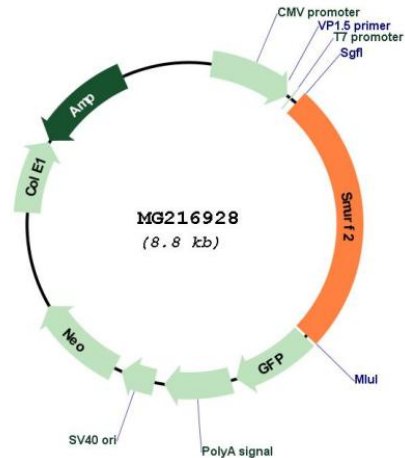
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_025481

ORF Size: 2244 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_025481.2](#), [NP_079757.2](#)

RefSeq Size: 5346 bp

RefSeq ORF: 2247 bp

Locus ID: 66313

UniProt ID: [A2A5Z6](#)

Cytogenetics: 11 E1

Gene Summary: E3 ubiquitin-protein ligase which accepts ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. Interacts with SMAD1 and SMAD7 in order to trigger their ubiquitination and proteasome-dependent degradation. In addition, interaction with SMAD7 activates autocatalytic degradation, which is prevented by interaction with SCYE1. Forms a stable complex with the TGF-beta receptor-mediated phosphorylated SMAD2 and SMAD3. In this way, SMAD2 may recruit substrates, such as SNON, for ubiquitin-mediated degradation. Enhances the inhibitory activity of SMAD7 and reduces the transcriptional activity of SMAD2. Coexpression of SMURF2 with SMAD1 results in considerable decrease in steady-state level of SMAD1 protein and a smaller decrease of SMAD2 level.[UniProtKB/Swiss-Prot Function]