

Product datasheet for **RG210866**

SMURF 2 (SMURF2) (NM_022739) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SMURF 2 (SMURF2) (NM_022739) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SMURF 2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RG210866 representing NM_022739
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCTAACCCCGGAGGCCGGAGGAACGGGCCCGTCAAGCTGCGCCTGACAGTACTCTGTGCAAAAACC
TGGTGAAAAAGGATTTTTCCGACTTCCTGATCCATTTGCTAAGGTGGTGGTTGATGGATCTGGCAATG
CCATTCTACAGATACTGTGAAGAATACGCTTGATCCAAAGTGGAATCAGCATTATGACCTGTATATTGGA
AAGTCTGATTACGATTACGATCAGTGTATGGAATCACAAGAAGATCCATAAGAAACAAGGTGCTGGATTT
TCGGTTGTGTTCTTCTTTCCAATGCCATCAACCGCCTCAAAGACTGGTTATCAGAGGTTGGATTT
ATGCAACTCGGGCCAAATGACAATGATACAGTTAGAGGACAGATAGTAGTAAGTCTTCAGTCCAGAGAC
CGAATAGGCACAGGAGACAAGTTGTGGACTGCAGTCGTTTATTTGATAACGATTTACCAGACGGCTGGG
AAGAAAGGAGAACCGCCTCTGGAAGAATCCAGTATCTAAACCATATAACAAGAACTACGCAATGGGAGCG
CCCAACACGACCGCATCCGAATATTCTAGCCCTGGCAGACCTTTAGCTGCTTTGTTGATGAGAACT
CCAATTAGTGGAAACAAATGGTGCAACATGTGGACAGTCTTCAGATCCCAGGCTGGCAGAGAGGAGAGTCA
GGTCACAACGACATAGAAATTACATGAGCAGAACACATTTACATACTCTCCAGACCTACCAAGAAGGCTA
TGAACAGAGGACAACGCAACAAGGCCAGGTGATTTTCTTACATACACAGACTGGTGTGAGCAGATGGCAT
GATCCAAGAGTGGCCAGGGATCTTAGCAACATCAATTGTGAAGAGCTTGGTCCATTGGCTCCTGGATGGG
AGATCCGTAATACGGCAACAGGCAGAGTTTATTTCTGTTGACCATAACAACAGAACACAAATTTACAGA
TCCTCGGCTGTCTGCTAACTTGCAATTTAGTTTTAAATCGGCAGAACCAATTGAAAGACCAACAGCAACAG
CAAGTGGTATCGTTATGTCCTGATGACACAGAATGCCTGACAGTCCCAAGGTACAAGCGAGACCTGGTTC
AGAACTAAAAATTTTGGCGCAAGAATTTCCCAACAACAGCCTCAGGCAGGTCAATGCCGATTGAGGT
TTCCAGGGAAGAGATTTTTGAGGAATCATATCGACAGGTCATGAAAATGAGACCAAAAGATCTCTGGAAG
CGATTAATGATAAAATTTCTGTTGAGAAGAAGGCCCTTACTATGGAGGCGTTGCCAGGGAATGGTGTATC
TCTTGTCACATGAAATGTTGAATCCATACTATGGCCTCTTCCAGTATTCAAGAGATGATATTTATACATT
GCAGATCAATCCTGATTCTGCAGTTAATCCGGAACATTTATCCTATTTCCACTTTGTTGGACGAATAATG
GGAATGGCTGTGTTTCATGGACATTATATTGATGGTGGTTTACATTGCCTTTTTATAAGCAATTGCTTG
GGAAGTCAATTACCTGGATGACATGGAGTTAGTAGATCCGGATCTTCACAACAGTTTAGTGTGGATACT
TGAGAATGATATTACAGGTGTTTTGGACCATACCTTCTGTGTTGAACATAATGCATATGGTGAATTTATT
CAGCATGAACTTAAACCAATGGCAAAAGTATCCCTGTTAATGAAGAAAATAAAAAAGAATATGTCAGGC
TCTATGTGAACTGGAGATTTTTACGAGGCATTGAGGCTCAATTCTTGGCTCTGCAGAAAGGATTTAATGA
AGTAATCCACAACATCTGCTGAAGACATTTGATGAGAAGGAGTTAGAGCTCATTATTTGTGGACTTGGAA
AAGATAGATGTTAATGACTGGAAGGTAACACCCGGTTAAAACACTGTACACCAGACAGCAACATTTGTCA
AATGGTTCTGAAAGCTGTGGAGTTTTTGTGATGAAGAGCGACGAGCAAGATTGCTTCAGTTTGTGACAGG
ATCCTCTCGAGTGCCTCTGCAGGGCTTCAAAGCATTGCAAGGTGCTGCAGGCCGAGACTCTTACCATA
CACCAGATTGATGCCTGCACTAACAACTGCCGAAAGCCACACTTGCTTCAATCGAATAGACATTTCCAC
CCTATGAAAGCTATGAAAAGCTATATGAAAAGCTGCTAACAGCCATTGAAGAAACATGTGGATTTGCTGT
GGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG210866 representing NM_022739
 Red=Cloning site Green=Tags(s)

```

MSNPGGRRNGPVKLRRLTVLCAKNLVKKDFRLLPDPFAKVVDGSGQCHSTDTVKNTLDPKWNQHYDLYIG
KSDSVTISVWNHKKIHKKQGAGFLGCVRLLSNAINRLKDTGYQRLDLCKLGPNDNDTVRGQIVVSLQSRD
RIGTGGQVVDCSRLLFDNDLPDGWEERRTASGRIQYLNHITRRTTQWERPTRPASEYSSPGRPLSCFVDENT
PISGTNGATCGQSSDPRLAERRVRSQRHRNYSRTHLHTPPDLPEGYEQRRTTQQGVYFLHTQTGVSTWH
DPRVPRDLSNINCEELGPLPPGWEIRNTATGRVYFVDHNNRTTQFTDPRLSANLHLVLRQNQLKDQQQQ
QVVSLLCPDDECLTVPRYKRDLVQKLIKLRQELSQQPQAGHCRIEVSREEIFEESYRQVMKMRPKDLWK
RLMIKFRGEEGLDYGGVAREWL YLLSHEMLNPYYGLFQYSRDDIYTLQINPDSAVNPEHLSYFHFVGRIM
GMAVFHGHYIDGGFTLPFYKQLLGSITLDDMELVDPDLHNSLVWILENDITGLVDHTFCVEHNAYGEII
QHELKPNGKSIPVNEENKKEYVRLYVNWRFRLGIEAQFLALQKGFNEVIPQHLLKTFDEKELELIICGLG
KIDVNDWKVNTRLKHCTPDSNIVKWFVKAWEFFDEERRARLLQFVTGSSRVPLQGFKALQGAAGPRLFTI
HQIDACTNNLPAHTCFNRIDIPPEYSEKLYEKLLTAIEETCGFAVE
  
```

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_022739

ORF Size: 2244 bp

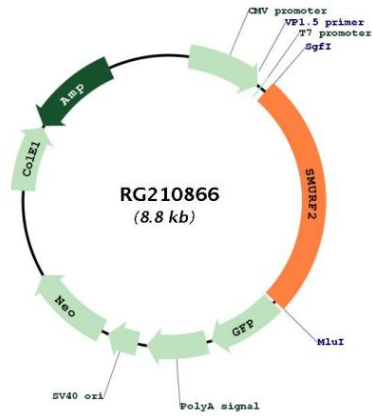
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<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:	NM_022739.4
RefSeq Size:	3866 bp
RefSeq ORF:	2247 bp
Locus ID:	64750
UniProt ID:	Q9HAU4
Cytogenetics:	17q23.3-q24.1
Domains:	C2, HECT, WW
Protein Families:	Adult stem cells, Druggable Genome, ES Cell Differentiation/IPS, Transcription Factors
Protein Pathways:	Allograft rejection, Antigen processing and presentation, Autoimmune thyroid disease, Cell adhesion molecules (CAMs), Endocytosis, Graft-versus-host disease, TGF-beta signaling pathway, Type I diabetes mellitus, Ubiquitin mediated proteolysis, Viral myocarditis
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]

Product images:



Circular map for RG210866