

Product datasheet for **MR216928**

Smurf2 (NM_025481) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smurf2 (NM_025481) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Smurf2
Synonyms:	2810411E22Rik; AI558114; AI649275
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>MR216928 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCTAACCCCGGAGGCCGGAGGAACGGGCCCGTCAAGCTGCGCCTGACAGTACTCTGTGCAAAAACT
TGGTGA AAAAGGATTTTTCCGTCTTCTGATCCATTTGCTAAGGTGGTAGTTGATGGTTCTGGCAGTG
CCATTCTACAGATACTGTGAAGAACACACTTGATCCAAAGTGGAATCAGCATTATGACCTGTATATCGGA
AAGTCTGATTACGATTACGATCAGCGTATGGAATCATAAGAAGATCCATAAGAAGCAAGGTGCTGGATTTCT
TTGGTTGTGTTCTTCTTTCCAATGCCATCAACCGCCTCAAGGACACTGGTTATCAGAGGTTGGATTT
ATGCAAACTGGGGCCAAATGACAATGATACAGTTCGAGGACAAATGTAGTAAGTCTTCAGTCCAGAGAC
CGAATAGGCACGGGAGGACAAGTTGTGGACTGTAGTCGTTTGTGACAATGATTTGCCAGATGTTGGG
AAGAAAGGCGGACTGCCTCGGGAAGAATCCAGTATCTAAACCACATCACAAGAACTACACAGTGGGAACG
CCCAACACGACCGCGCTCAGAATATTCTAGTCCTGGCAGACCCCTCAGTCTTTGTGGATGAGAATACT
CCAATTACTGGAACAAATGGTGCAACGTGTGGACATTTCTCAGACCCAGACTAGCAGAGAGAAGAGTCA
GGTCCCAGCGACATAGAAATTACATGAGCAGGACACACTTACACACTCCTCCAGACCTACCGGAAGGCTA
TGAACAAAGGACAACGCAGCAGGGTCAGGTATATTTCTTACATACTCAGACTGGTGTGAGCACATGGCAT
GATCCACGAGTGCCTAGGGATCTTAGCAACATCAATTGTGAAGAGCTCGGTCCTTTGGCTCCTGGATGGG
AGATCCGCAATACCGCAACAGGAAGAGTTTATTTCTGTGACCATAACAACAGAACACAAATTTACAGA
TCCCGGCTCTCTGCTAACTTGCATTTAGTTTTAAATCGTCAGAACAGTTGAAAGCAACAGCAACAG
CAAGTGGTGCCATTGTGTCCCGATGACACTGAGTGTCTGACAGTGCCAAGATAACAAGCGAGATTTGGTTC
AAAACTAAAAATCTTGGCGCAAGAATTTCCCAACAGCAGCCTCAAGCTGGCCACTGCCGATTTGAGTT
GTCTAGGGAAGAGATTTTTGAGGAATCATATAGACAGGTCATGAAAATGAGGCCAAAAGATCTATGGAAG
CGATTAATGATAAAATTTCTGTTGAGAAGAAGGTTGACTATGGAGGAGTTGCCAGGGAATGGTTGTATC
TCCTGTACATGAAATGTTGAATCCTTACTATGGTCTCTTCCAGTATTCTAGAGATGATATCTACACATT
GCAGATCAATCCTGATTCTGCAGTTAATCCGGAACATTTATCCTATTTCCACTTTGTTGGACGGATAATG
GGAATGGCTGTATTCCATGGACATTATATTGACGGTGGCTTACATTACCTTTTTATAAACAGTTGCTTG
GGAAGTCAATTACTTTGGATGACATGGAGCTAGTTGACCCAGACCTTCATAATAGTTTAGTGTGGATACT
TGAACACGATATCACAGGTGTTCTGGACCATACCTTCTGTGTTGAGCATAATGCATATGGTAAATAATC
CAGCATGAACTCAAACCAATGGCAAAAGTATCCCTGTTACTGAAGAAAATAAAAAAGAATATGTCAGGC
TTTATGTCAACTGGAGATTTCTCCGAGGCATCGAAGCTCAGTTCTTGGCGCTGCAGAAGGGCTTTAATGA
AGTCATTTCCAGCACCTGCTGAAGACATTTGATGAGAAGGAGCTGGAGCTCATTATTTGTGGACTTGGC
AAAATTGATGTGAGTACTGGAAGGTCAACACCCGTTTAAAACTGTACCCAGACAGCAATGTCGTCA
AGTGGTTCTGAAAGCGGTGGAGTTTTTGTGATGAAGAGAGACGAGCAGGTTGCTCCAGTTTGTGACAGG
GTCCTCTCGAGTGCCTCTGCAGGGCTTCAAAGCACTACAAGGTGCTGCAGGCCACGGCTCTTTACCATA
CACCAGATTGATGCCTGCACGAACAATTGCCAAAAGCCACACTTGCTTCAATCGAATAGACATTTCCAC
CCTATGAAAGCTATGAGAAGCTCTATGAAAAGCTGCTAACGGCCATCGAGGAGACATGTGGCTTTGCTGT
GGAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR216928 protein sequence
 Red=Cloning site Green=Tags(s)

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MSNPGGRRNGPVKLRLTVLCAKNLVKKDFRLLPDPFAKVVDGSGQCHSTDTVKNTLDPKWNQHYDLYIG
KSDSVTISVWNHKKIHKKQGAGFLGCVRLLSNAINRLKDTGYQRLDLCKLGPNDNDTVRGQIVVSLQSRD
RIGTGGQVVDCSRLLFDNDLPDGWEERRTASGRIQYLNHITRTTQWERPTRPASEYSSPGRPLSCFVDENT
PITGTNGATCGHSSDPRLAERRVRSQRHRNYSRTHLHTPPDLPEGYEQRRTTQQGQVYFLHTQTGVSTWH
DPRVPRDLSNINCEELGPLPPGWEIRNTATGRVYFVDHNNRTTQFDPRLSANLHLVLRQNLKDKDQQQ
QVVPLCPDDECLTVPRYKRDLVQKLKILRQELSQQQPQAGHCRIEVSREEIFEESYRQVMKMRPKDLWK
RLMIKFRGEEGLDYGGVAREWL YLLSHEMLNPYYGLFQYSRDDIYTLQINPDSAVNPEHLSYFHFVGRIM
GMAVFHGHYIDGGFTLPFYKQLLGSITLDDMELVDPDLHNSLVWILENDITGLVDHTFCVEHNAYGEII
QHELKPNGKSIPVTEENKKEYVRLYVNWRFRLGIEAQFLALQKGFNEVIPQHLLKTFDEKELELIICGLG
KIDVSDWKVNTRLKHCTPDSNVVWFWKAVEFFDEERRARLLQFVTGSSRVPLQGFKALQGAAGPRLFTI
HQIDACTNNLPAHTCFNRIDIPPYESYEKLYEKLLTAIEETCGFAVE
  
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_025481

ORF Size: 2247 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_025481.1](#), [NM_025481.2](#), [NP_079757.2](#)

RefSeq Size: 5346 bp

RefSeq ORF: 2247 bp

Locus ID: 66313

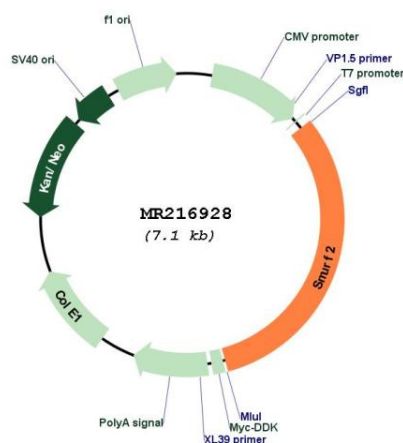
UniProt ID: [A2A5Z6](#)

Cytogenetics: 11 E1

MW: 86.2 kDa

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 MR216928