

## Product datasheet for **MC221302**

### Smurf2 (NM\_025481) Mouse Untagged Clone

#### Product data:

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



[View online »](#)

**Fully Sequenced ORF:** >MC221302 representing NM\_025481  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTCTAACCCCGGAGGCCGGAGGAACGGGCCCGTCAAGCTGCGCCTGACAGTACTCTGTGCAAAAACT  
 TGGTGA AAAAGGATTTTTCCGTCTTCCTGATCCATTTGCTAAGGTGGTAGTTGATGGTTCTGGCAGTG  
 CCATTCTACAGATACTGTGAAGAACACACTTGATCCAAAGTGGAATCAGCATTATGACCTGTATATCGGA  
 AAGTCTGATTACGATTACGATCAGCGTATGGAATCATAAGAAGATCCATAAGAAGCAAGGTGCTGGATTTT  
 TTGGTTGTGTTCTTCTTTCCAATGCCATCAACCGCCTCAAGGACACTGGTTATCAGAGGTTGGATTT  
 ATGCAAACTGGGGCCAAATGACAATGATACAGTTCGAGGACAAATGTAGTAAGTCTTCAGTCCAGAGAC  
 CGAATAGGCACGGGAGGACAAGTTGTGGACTGTAGTCGTTTGTGGACAATGATTTGCCAGATGGTTGGG  
 AAGAAAGCGGACTGCCTCGGGAAGAATCCAGTATCTAAACCACATCACAAGAACTACACAGTGGGAACG  
 CCCAACACGACCGCGCTCAGAATATTCTAGTCCTGGCAGACCCCTCAGCTGCTTTGTGGATGAGAATACT  
 CCAATTACTGGAACAAATGGTGCAACGTGTGGACATTCCTCAGACCCAGACTAGCAGAGAGAAGAGTCA  
 GGTCCCAGCGACATAGAAATTACATGAGCAGGACACACTTACACACTCCTCCAGACCTACCGGAAGGCTA  
 TGAACAAAGGACAACGCAGCAGGGTCAGGTATATTTCTTACATACTCAGACTGGTGTGAGCACATGGCAT  
 GATCCACGAGTGCCTAGGGATCTTAGCAACATCAATTGTGAAGAGCTCGGTCCTTTGGCTCCTGGATGGG  
 AGATCCGCAATACCGCAACAGGAAGAGTTTATTTCTGTGACCATAACAACAGAACACAAATTTACAGA  
 TCCCCGGCTCTCTGCTAACTTGCAATTTAGTTTTAAATCGTCAGAACAGTTGAAAGCAACAGCAACAG  
 CAAGTGGTGCCATTGTGTCCCGATGACACTGAGTGTCTGACAGTGCCAAGATAACAAGCGAGATTTGGTTC  
 AAAAACTAAAAATCTTGGCGCAAGAATTTCCCAACAGCAGCCTCAAGCTGGCCACTGCCGATTTGAGGT  
 GTCTAGGGAAGAGATTTTTGAGGAATCATATAGACAGGTGATGAAAATGAGGCCAAAAGATCTATGGAA  
 CGATTAATGATAAAATTTCTGTTGAGAAGAAGGCTTACTATGGAGGAGTTGCCAGGGAATGGTTGTATC  
 TCCTGTACATGAAATGTTGAATCCTTACTATGGTCTCTTCCAGTATTCTAGAGATGATATCTACACATT  
 GCAGATCAATCCTGATTCTGCAGTTAATCCGGAACATTTATCCTATTTCCACTTTGTTGGACGGATAATG  
 GGAATGGCTGTATTCCATGGACATTATATTGACGGTGGCTTACATTACCTTTTTATAAACAGTTGCTTG  
 GGAAGTCAATTACTTTGGATGACATGGAGCTAGTTGACCCAGACCTTCATAATAGTTTAGTGTGGATACT  
 TGAACAGGATATCACAGGTGTTCTGGACCATACCTTCTGTGTTGAGCATAATGCATATGGTGAATAATC  
 CAGCATGAACTCAAACCAATGGCAAAAGTATCCCTGTTACTGAAGAAAATAAAAAAGAATATGTCAGGC  
 TTTATGTCAACTGGAGATTTCTCCGAGGCATCGAAGCTCAGTTCCCTGGCGCTGCAGAAGGGCTTTAATGA  
 AGTCATTTCCAGCACCTGCTGAAGACATTTGATGAGAAGGAGCTGGAGCTCATTATTTGTGGACTTGGC  
 AAAATTGATGTGAGTGACTGGAAGGTCAACACCCGGTTAAAACACTGTACCCAGACAGCAATGTCGTCA  
 AGTGGTTCTGAAAGCGGTGGAGTTTTTGTGAGAGAGACGAGCAGGTTGCTCCAGTTTGTGACAGG  
 GTCCTCTCGAGTGCCTCTGCAGGGCTTCAAAGCACTACAAGGTGCTGCAGGCCACGGCTCTTTACCATA  
 CACCAGATTGATGCCTGCACGAACAATTGCCAAAAGCCACACTTGCTTCAATCGAATAGACATTCAC  
 CCTATGAAAGCTATGAGAAGCTCTATGAAAAGCTGCTAACGGCCATCGAGGAGACATGTGGCTTTGCTGT  
 GGAATGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-Mlul  
**ACCN:** NM\_025481  
**Insert Size:** 2247 bp

<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_025481.2</a> , <a href="#">NP_079757.2</a>
<b>RefSeq Size:</b>	5346 bp
<b>RefSeq ORF:</b>	2247 bp
<b>Locus ID:</b>	66313
<b>UniProt ID:</b>	<a href="#">A2A5Z6</a>
<b>Cytogenetics:</b>	11 E1
<b>Gene Summary:</b>	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]