

## Product datasheet for **RG202448**

### SM22 alpha (TAGLN) (NM\_001001522) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** SM22 alpha (TAGLN) (NM\_001001522) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** SM22 alpha  
**Synonyms:** SM22; SM22-alpha; SMCC; TAGLN1; WS3-10  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG202448 representing NM\_001001522  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCCAACAAGGGTCCTTCTATGGCATGAGCCGGAAGTGCAGTCCAAAATCGAGAAGAAGTATGACG  
 AGGAGCTGGAGGAGCGGCTGGTGGAGTGGATCATAGTGCAGTGTGGCCCTGATGTGGGCCCCAGACCG  
 TGGGCGCTTGGGCTTCCAGGTCTGGCTGAAGAATGGCGTGATTCTGAGCAAGCTGGTGAACAGCCTGTAC  
 CCTGATGGCTCCAAGCCGGTGAAGGTGCCGAGAACCACCTCCATGGTCTTCAAGCAGATGGAGCAGG  
 TGGCTCAGTTCCTGAAGGCGGCTGAGGACTATGGGGTCATCAAGACTGACATGTTCCAGACTGTTGACCT  
 CTTTGAAGGCAAAGACATGGCAGCAGTGCAGAGGACCCTGATGGCTTTGGGCAGCTTGGCAGTGACCAAG  
 AATGATGGGCACTACCGTGGAGATCCCAACTGGTTTATGAAGAAAGCGCAGGAGCATAAGAGGGAATTC  
 CAGAGAGCCAGCTGCAGGAGGAAAGCATGTCATTGGCCTTCAGATGGGCAGCAACAGAGGGGCTCCCA  
 GGCCGGCATGACAGGCTACGGACGACCTCGGCAGATCATCAGT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >RG202448 representing NM\_001001522  
 Red=Cloning site Green=Tags(s)

MANKGPSYGMSREVQSKIEKKYDEELEERLVEWIIIVQCGPDVGRPRDRGLGFQVWLKNGVILSKLVNSLY  
 PDGSKPVKVPENPPSMVFKQMEQVAQFLKAAEDYGVIKTDMFQTVDLFEGKDMAAVQRTLMLGSLAVTK  
 NDGHYRGDPNWFMKKAQEHKREFTESQLQEGKHVIGLQMGSNRGASQAGMTGYGRPRQIIS

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



**Cloning Scheme:**


**ACCN:** NM\_001001522

**ORF Size:** 603 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\\_001001522.2](#)

**RefSeq Size:** 1574 bp

**RefSeq ORF:** 606 bp

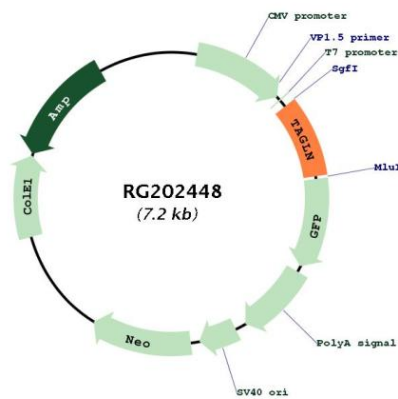
**Locus ID:** 6876

**UniProt ID:** [Q01995](#)

**Cytogenetics:** 11q23.3

**Gene Summary:**

This gene encodes a shape change and transformation sensitive actin-binding protein which belongs to the calponin family. It is ubiquitously expressed in vascular and visceral smooth muscle, and is an early marker of smooth muscle differentiation. The encoded protein is thought to be involved in calcium-independent smooth muscle contraction. It acts as a tumor suppressor, and the loss of its expression is an early event in cell transformation and the development of some tumors, coinciding with cellular plasticity. The encoded protein has a domain architecture consisting of an N-terminal calponin homology (CH) domain and a C-terminal calponin-like (CLIK) domain. Mice with a knockout of the orthologous gene are viable and fertile but their vascular smooth muscle cells exhibit alterations in the distribution of the actin filament and changes in cytoskeletal organization. [provided by RefSeq, Aug 2017]

**Product images:**

Circular map for RG202448