OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC215789

SM22 alpha (TAGLN) (NM_003186) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SM22 alpha (TAGLN) (NM_003186) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SM22 alpha
Synonyms:	SM22; SM22-alpha; SMCC; TAGLN1; WS3-10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC215789 representing NM_003186
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCAACAAGGGTCCTTCCTATGGCATGAGCCGCGAAGTGCAGTCCAAAATCGAGAAGAAGTATGACG
AGGAGCTGGAGGAGCGGCTGGTGGAGTGGATCATAGTGCAGTGTGGCCCTGATGTGGGCCGCCCAGACCG
TGGGCGCTTGGGCTTCCAGGTCTGGCTGAAGAATGGCGTGATTCTGAGCAAGCTGGTGAACAGCCTGTAC
CCTGATGGCTCCAAGCCGGTGAAGGTGCCCGAGAACCCACCCTCCATGGTCTTCAAGCAGATGGAGCAGG
TGGCTCAGTTCCTGAAGGCGGCTGAGGACTATGGGGTCATCAAGACTGACATGTTCCAGACTGTTGACCT
CTTTGAAGGCAAAGACATGGCAGCAGTGCAGAGGACCCTGATGGCTTTGGGCAGCTTGGCAGTGACCAAG
AATGATGGGCACTACCGTGGAGATCCCAACTGGTTTATGAAGAAAGCGCAGGAGCATAAGAGGGAATTCA
CAGAGAGCCAGCTGCAGGAGGGAAAGCATGTCATTGGCCTTCAGATGGGCAGCAACAGAGGGGCCTCCCA
GGCCGGCATGACAGGCTACGGACGACCTCGGCAGATCATCAGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC215789 representing NM_003186
Red=Cloning site Green=Tags(s)

MANKGPSYGMSREVQSKIEKKYDEELEERLVEWIIVQCGPDVGRPDRGRLGFQVWLKNGVILSKLVNSLY
PDGSKPVKVPENPPSMVFKQMEQVAQFLKAAEDYGVIKTDMFQTVDLFEGKDMAAVQRTLMALGSLAVTK
NDGHYRGDPNWFMKKAQEHKREFTESQLQEGKHVIGLQMGSNRGASQAGMTGYGRPRQIIS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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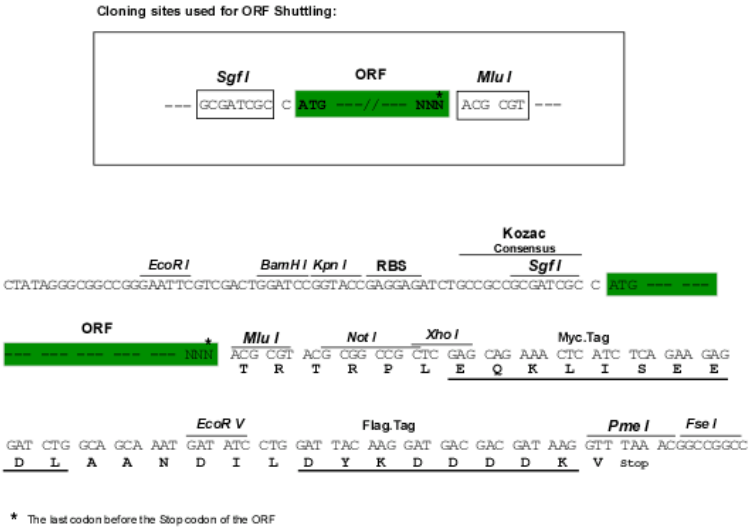
Chromatograms: https://cdn.origene.com/chromatograms/mk6036_h11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003186

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.

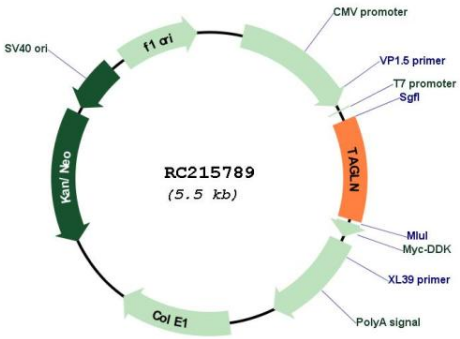
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_003186.5

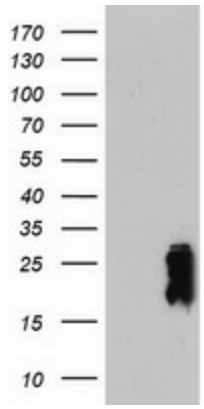
RefSeq Size: 1177 bp

RefSeq ORF:	606 bp
Locus ID:	6876
UniProt ID:	Q01995
Cytogenetics:	11q23.3
Domains:	calponin, CH
MW:	22.4 kDa
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]

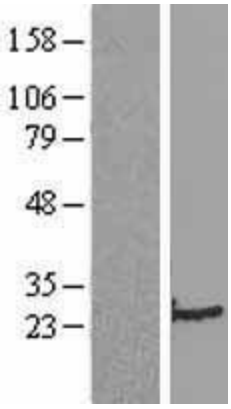
Product images:



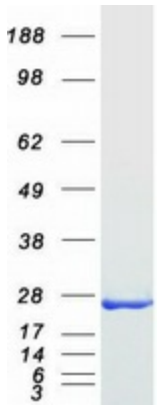
Circular map for RC215789



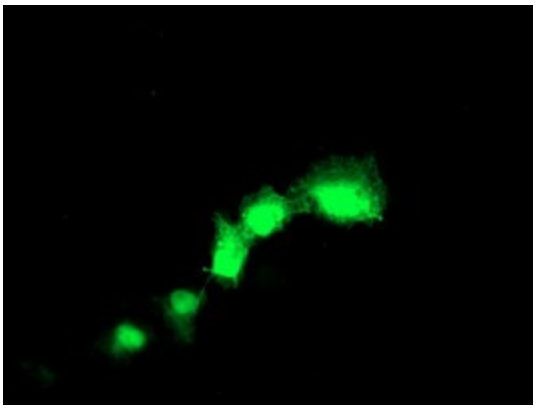
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TAGLN (Cat# RC215789, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TAGLN (Cat# [TA503092]). Positive lysates [LY401104] (100ug) and [LC401104] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401104]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215789 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TAGLN protein (Cat# [TP315789]). The protein was produced from HEK293T cells transfected with TAGLN cDNA clone (Cat# RC215789) using MegaTran 2.0 (Cat# [TT210002]).



Anti-TAGLN mouse monoclonal antibody ([TA503092]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY TAGLN (RC215789).