

## Product datasheet for **RG234237**

### EMA (MUC1) (NM\_001204286) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	EMA (MUC1) (NM_001204286) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	EMA
Synonyms:	ADMCKD; ADMCKD1; ADTKD2; CA 15-3; CD227; EMA; H23AG; KL-6; MAM6; MCD; MCKD; MCKD1; MUC-1; MUC-1/SEC; MUC-1/X; MUC1/ZD; PEM; PEMT; PUM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG234237 representing NM\_001204286  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGC**C

ATGACACCGGGCACCCAGTCTCCTTTCTCCTGCTGCTGCTCCTCACAGTGCTTACAGCTACCACAGCCC  
 CTAACCCGCAACAGTTGTTACGGGTTCTGGTCATGCAAGCTCTACCCAGGTGGAGAAAAGGAGACTTC  
 GGCTACCCAGAGAAGTTCAGTGCCAGCTCTACTGAGAAGAATGCTGTGAGTATGACCAGCAGCGTACTC  
 TCCAGCCACAGCCCCGGTTCAGGCTCCTCCACCACTCAGGGACAGGATGTCACTCTGGCCCCGGCCACGG  
 AACAGCTTCAGGTTTCACTGCCACCTGGGGACAGGATGTACCTCGGTCCAGTACCAGGCCAGCCCT  
 GGGCTCCACACCCCGCCAGCCACGATGTACCTCAGCCCCGGACAACAAGCCAGCCCCGGGCTCCACC  
 GCGCCCCAGCCACGGTGTACCTCGGCCCGGACACAGGCCGGCCCCGGGCTCCACCGCCCCCAG  
 CCCATGGTGTACCTCGGCCCGGACAACAGGCCCGCCTTGGGCTCCACCGCCCCCAGTCCACAATGT  
 CACCTCGGCTCAGGCTCTGCATCAGGCTCAGCTTCTACTCTGGTGCACAACGGCACCTCTGCCAGGGCT  
 ACCACAACCCAGCCAGCAAGAGCACTCCATTCTCAATCCAGCCACCACTCTGATACTCTACCAACC  
 TTGCCAGCCATAGCACCAAGACTGATGCCAGTAGCACTACCATAGCACGGTACCTCCTCTCACCTCCTC  
 CAATCACAGCACTTCTCCCCAGTTGTCTACTGGGCTCTTTCTTTTCTGTCTTTTACATTTCAAAC  
 CTCCAGTTTAATTCCTCTCTGGAAGATCCAGCACCGACTACTACCAAGAGCTGCAGAGAGACATTTCTG  
 AAATGTTTTTGCAGATTATAAACAAGGGGTTTTCTGGGCTCTCCAATATTAAGTTTCAAGGCCAGGATC  
 TGTGGTGGTACAATTGACTCTGGCCTCCGAGAAGGTACCATCAATGTCCACGACGTGGAGACACAGTTC  
 AATCAGTATAAAACGGAAGCAGCCTCTCGATATAACCTGACGATCTCAGACGTGAGCGTGAGTGCTG  
 CATTTCTTTTCTCTGCCAGTCTGGGGTGGGGTGGCAGGCTGGGGCATCGCGCTGCTGGTGTGGTCTG  
 TGTCTGTTGGCTGGCCTGGCCATTGTCTATCTCATTGCCTTGGCTGTCTGTCACTGCCGCCGAAAGAACTAC  
 GGGCAGCTGGACATCTTTCCAGCCCGGGATACCTACCATCCTATGAGCGAGTACCCACCTACCACACC  
 ATGGGCGCTATGTGCCCTAGCAGTACCGATCGTAGCCCTATGAGAAGGTTTCTGCAGGTAATGGTGG  
 CAGCAGCTCTCTTACACAAACCAGCAGTGGCAGCCACTTCTGCCAACTTG

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

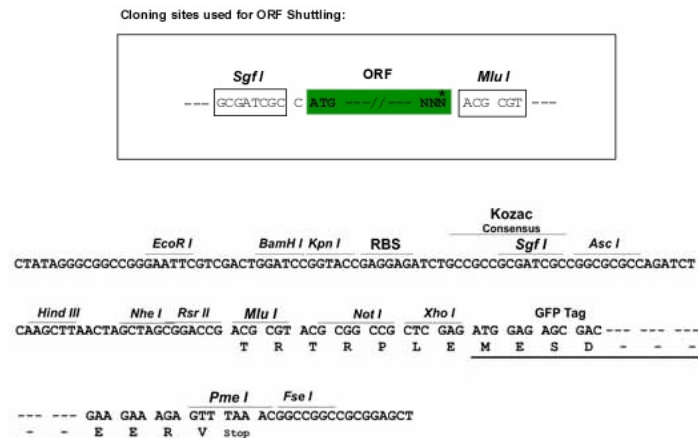
>RG234237 representing NM\_001204286  
 Red=Cloning site Green=Tags(s)

MTPGTQSPFFLLLLLTVLTATTAPKPVVTVSGHASSTPGGEKETSATQRSSVPSSTEKNAVSMSSVL  
 SSHSPGSGSSTTGQDVTLPATEPASGSAATWGQDVTSPVTRPALGSTTPPAHDVTSAPDNKPAPGST  
 APPAHGVTSAPDTRPAPGSTAPPAHGVTSAPDNRPALGSTAPPVHNVTASGSASGSASTLVHNGTSARA  
 TTPPASKSTPFSIPSHSDPTTTLASHSTKTDASSTHHSTVPPLTSSNHSTSPQLSTGVSFLLSFHISN  
 LQFNSSLEDPSDYYQELQRDISEMFLQIYKQGGFLGLSNIKFRPGSVVVQLTLAFREGTINVHDVETQF  
 NQYKTEAASRYNLTISDVSVDVPFPFSAQSGAGVPGWGIALLLVLCVLVALAIVLYLIALAVQCRRKNY  
 GQLDIFPARDTYHPMSEYPTYHTHGRYVPPSSDRSPYEKVSAGNGGSSLSYTNPAVAATSANL

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001204286

**ORF Size:** 1452 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

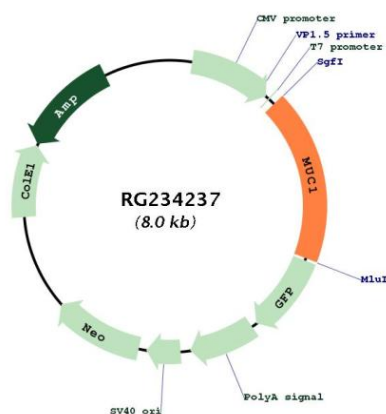
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**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:	<u>NM_001204286.1, NP_001191215.1</u>
RefSeq Size:	1853 bp
RefSeq ORF:	1455 bp
Locus ID:	4582
UniProt ID:	<u>P15941</u>
Cytogenetics:	1q22
Protein Families:	Druggable Genome, Secreted Protein, Transmembrane
Gene Summary:	This gene encodes a membrane-bound protein that is a member of the mucin family. Mucins are O-glycosylated proteins that play an essential role in forming protective mucous barriers on epithelial surfaces. These proteins also play a role in intracellular signaling. This protein is expressed on the apical surface of epithelial cells that line the mucosal surfaces of many different tissues including lung, breast stomach and pancreas. This protein is proteolytically cleaved into alpha and beta subunits that form a heterodimeric complex. The N-terminal alpha subunit functions in cell-adhesion and the C-terminal beta subunit is involved in cell signaling. Overexpression, aberrant intracellular localization, and changes in glycosylation of this protein have been associated with carcinomas. This gene is known to contain a highly polymorphic variable number tandem repeats (VNTR) domain. Alternate splicing results in multiple transcript variants.[provided by RefSeq, Feb 2011]

## Product images:



Circular map for RG234237