

## Product datasheet for **RC223848**

### EMA (MUC1) (NM\_001044391) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** EMA (MUC1) (NM\_001044391) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**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-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC223848 representing NM\_001044391  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACACCGGGCACCCAGTCTCCTTTCTCCTGCTGCTGCTCCTCACAGTGCTTACAGTTGTTACGGGTT  
CTGGTCATGCAAGCTCTACCCAGGTGGAGAAAAGGAGACTTCGGCTACCCAGAGAAGTTCAGTGCCAG  
CTCTACTGAGAAGAATGCTTTTAATTCCTCTCTGGAAGATCCCAGCACCAGCTACTACCAAGAGCTGCAG  
AGAGACATTTCTGAAATGGCTGTCTGTCTGAGTCCCGCCGAAAGAACTACGGGCAGCTGGACATCTTCCAG  
CCCGGGATACCTACCATCCTATGAGCGAGTACCCACCTACCACACCCATGGGCGCTATGTGCCCCCTAG  
CAGTACCGATCGTAGCCCTATGAGAAGGTTTCTGCAGGTAATGGTGGCAGCAGCCTCTTTACACAAC  
CCAGCAGTGGCAGCCACTTCTGCCAATTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC223848 representing NM\_001044391  
Red=Cloning site Green=Tags(s)  
MTPGTQSPFFLLLLLTVLTVVTGSGHASSTPGGEKETSATQRSSVPSSTEKNAFNSSLEDPSTDYYQELQ  
RDISEMAVCQRRKNYQLDIFPARDTYHPMSEYPTYHTHGRYVPPSSTRSPYEKVSAGNGGSSLSYTN  
PAVAATSANL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

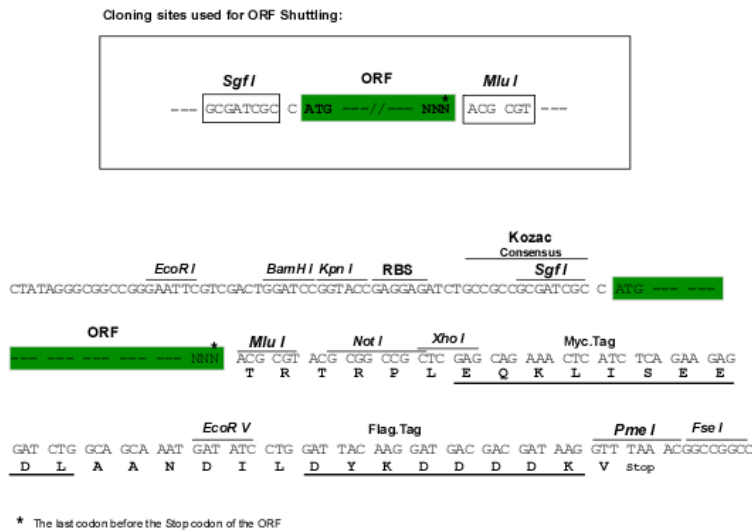


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**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1458\\_b03.zip](https://cdn.origene.com/chromatograms/ja1458_b03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001044391

**ORF Size:** 450 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\\_001044391.3](#)

**RefSeq Size:** 846 bp

**RefSeq ORF:** 453 bp

**Locus ID:** 4582

UniProt ID: [P15941](#)

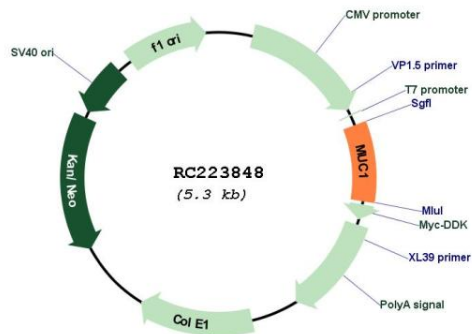
Cytogenetics: 1q22

Protein Families: Druggable Genome, Secreted Protein, Transmembrane

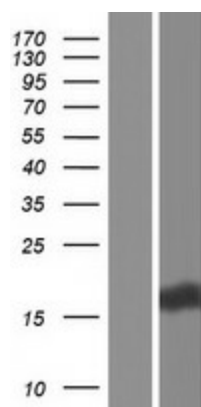
MW: 16.25 kDa

**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 RC223848



Western blot validation of overexpression lysate (Cat# [LY420828]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223848 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).