

## Product datasheet for **RC210664**

### Serum Amyloid A (SAA1) (NM\_000331) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Serum Amyloid A (SAA1) (NM\_000331) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Serum Amyloid A  
**Synonyms:** PIG4; SAA; SAA2; TP53I4  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC210664 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGAAGCTTCTCACGGGCTGGTTTTCTGCTCCTTGGTCTGGGTGTCAGCAGCCGAAGCTTCTTTTCGT  
TCCTTGGCGAGGCTTTTGGATGGGCTCGGGACATGTGGAGAGCCTACTCTGACATGAGAGAAGCCAATTA  
CATCGGCTCAGACAAATACTTCCATGCTCGGGGAACTATGATGCTGCCAAAAGGGGACCTGGGGGTGTC  
TGGGCTGCAGAAGCGATCAGCGATGCCAGAGAGAATATCCAGAGATTCTTTGGCCATGGTGGGAGGACT  
CGCTGGCTGATCAGGCTGCCAATGAATGGGCAGGAGTGGCAAAGACCCCAATCACTTCCGACCTGCTGG  
CCTGCCTGAGAAATAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC210664 protein sequence  
Red=Cloning site Green=Tags(s)  
MKLLTGLVFCSLVLGVSSRSFFSFLGEAFDGDARMWRAYSDMREANYIGSDKYFHARGNYDAAKRGPGGV  
WAAEAIISDARENIQRFFGHGAEDSLADQAANEWGRSGKDPNHFRPAGLPEKY

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6547\\_a04.zip](https://cdn.origene.com/chromatograms/mk6547_a04.zip)

**Restriction Sites:** Sgfl-Mlul



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## Cloning Scheme:



ACCN: NM\_000331

ORF Size: 366 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\\_000331.1](#)

RefSeq Size: 678 bp

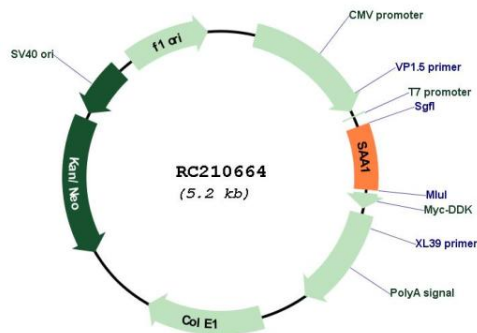
RefSeq ORF: 369 bp

**Locus ID:** 6288  
**UniProt ID:** [P02735](#)  
**Cytogenetics:** 11p15.1

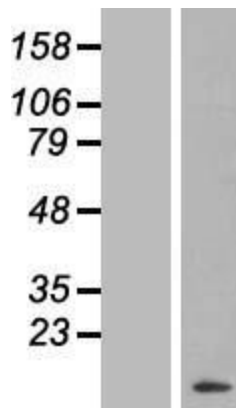
**MW:** 13.5 kDa

**Gene Summary:** This gene encodes a member of the serum amyloid A family of apolipoproteins. The encoded preproprotein is proteolytically processed to generate the mature protein. This protein is a major acute phase protein that is highly expressed in response to inflammation and tissue injury. This protein also plays an important role in HDL metabolism and cholesterol homeostasis. High levels of this protein are associated with chronic inflammatory diseases including atherosclerosis, rheumatoid arthritis, Alzheimer's disease and Crohn's disease. This protein may also be a potential biomarker for certain tumors. Finally, antimicrobial activity against *S. aureus* and *E. coli* resides in the N-terminal portion of the mature protein. Alternate splicing results in multiple transcript variants that encode the same protein. A pseudogene of this gene is found on chromosome 11. [provided by RefSeq, Jul 2020]

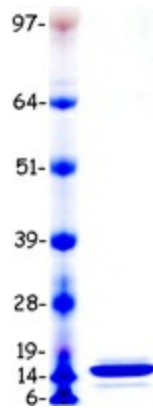
**Product images:**



Circular map for RC210664



Western blot validation of overexpression lysate (Cat# [LY424788]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210664 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SAA1 protein (Cat# [TP310664]). The protein was produced from HEK293T cells transfected with SAA1 cDNA clone (Cat# RC210664) using MegaTran 2.0 (Cat# [TT210002]).