

Product datasheet for **RC204977**

serum amyloid A2 (SAA2) (NM_030754) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: serum amyloid A2 (SAA2) (NM_030754) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: serum amyloid A2
Synonyms: SAA; SAA1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC204977 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAAGCTTCTCACGGGCTGGTTTTCTGCTCCTTGGTCTGAGTGTCAGCAGCCGAAGCTTCTTTTCGT
 TCCTTGGCGAGGCTTTTGGTGGCTCGGGACATGTGGAGAGCCTACTCTGACATGAGAGAAGCCAATTA
 CATCGGCTCAGACAAATACTTCCATGCTCGGGGAACTATGATGCTGCCAAAAGGGGACCTGGGGTGCC
 TGGGCCGAGAAGTGATCAGCAATGCCAGAGAGAATATCCAGAGACTCACAGGCCATGGTGGGAGGACT
 CGCTGGCCGATCAGGCTGCCAATAAATGGGGCAGGAGTGGCAGAGACCCCAATCACTTCCGACCTGCTGG
 CCTGCCTGAGAAATAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC204977 protein sequence
 Red=Cloning site Green=Tags(s)
 MKLLTGLVFCSLVLSVSSRSFFSFLGEAFDGDARMWRAYSDMREANYIGSDKYFHARGNYDAAKRGPGGA
 WAAEVIISNARENIQRLTGHGAEDSLADQAANKWGRSGRDPNHFRPAGLPEKY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6551_e09.zip

Restriction Sites: Sgfl-Mlul



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Cloning Scheme:



ACCN: NM_030754

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_030754.2](#), [NP_110381.1](#)

RefSeq Size: 594 bp

RefSeq ORF: 369 bp

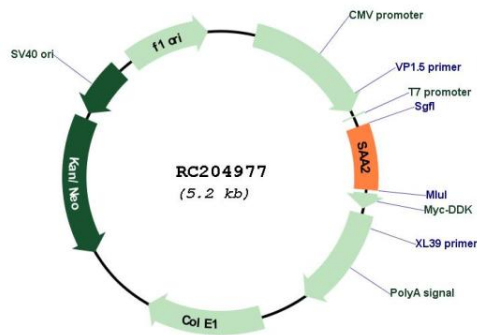
Locus ID: 6289
 UniProt ID: [P02735](#)
 Cytogenetics: 11p15.1

Protein Families: Druggable Genome

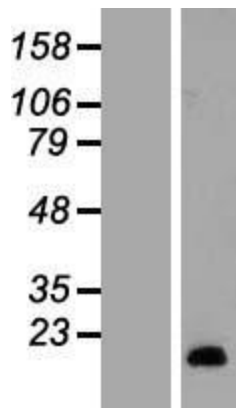
MW: 13.5 kDa

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. [provided by RefSeq, Jul 2020]

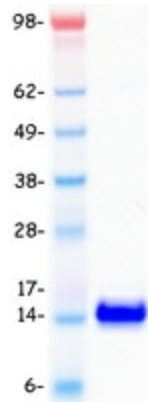
Product images:



Circular map for RC204977



Western blot validation of overexpression lysate (Cat# [LY410691]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204977 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SAA2 protein (Cat# [TP304977]). The protein was produced from HEK293T cells transfected with SAA2 cDNA clone (Cat# RC204977) using MegaTran 2.0 (Cat# [TT210002]).