

## Product datasheet for **RC200509**

### alpha 1 Antichymotrypsin (SERPINA3) (NM\_001085) Human Tagged ORF Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | alpha 1 Antichymotrypsin (SERPINA3) (NM_001085) Human Tagged ORF Clone |
| Tag:                      | Myc-DDK  |
| Symbol:                   | alpha 1 Antichymotrypsin   |
| Synonyms:                 | AACT; ACT; GIG24; GIG25  |
| Mammalian Cell Selection: | Neomycin   |
| Vector:                   | pCMV6-Entry (PS100001)   |
| E. coli Selection:        | Kanamycin (25 ug/mL)   |



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**ORF Nucleotide Sequence:**

>RC200509 representing NM\_001085  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAGAGAATGTTACCTCTCCTGGCTCTGGGGCTCTTGGCGGCTGGGTTCTGCCCTGTCTCCTCTGCC  
 ACCCTAACAGCCCACTTGACGAGGAGAATCTGACCCAGGAGAACCAAGACCGAGGGACACACGTGGACCT  
 CGGATTAGCCTCCGCCAACGTGGACTTCGCTTTTACGCTGTACAAGCAGTTAGTCTGAAGGCCCTGAT  
 AAGAATGTCATCTTCTCCCACTGAGCATCTCCACCGCCTTGGCCTTCTGTCTCTGGGGGCCATAATA  
 CCACCCTGACAGAGATTCTCAAAGGCCTCAAGTTCAACCTCACGGAGACTTCTGAGGCAGAAATCACCA  
 GAGCTTCCAGCACCTCTGCGCACCTCAATCAGTCCAGCGATGAGCTGCAGCTGAGTATGGAAATGCC  
 ATGTTTGTCAAAGAGCAACTCAGTCTGTGGACAGTTTACGGAGGATGCCAAGAGGCTGTATGGCTCCG  
 AGGCCTTTGCCACTGACTTTTCCAGACTCAGCTGCAGCTAAGAAGCTCATCAACGACTACGTGAAGAATGG  
 AACTAGGGGGAAAATCACAGATCTGATCAAGGACCTTACTCGCAGACAATGATGGTCTGGTGAATTAC  
 ATCTTCTTTAAAGCCAAATGGGAGATGCCCTTTGACCCCAAGATACTCATCAGTCAAGGTTCTACTTGA  
 GCAAGAAAAAGTGGGTAATGGTGCCCATGATGAGTTTGCATCACCTGACTATACCTTACTCCGGGACGA  
 GGAGCTGTCTGCACCGTGGTGGAGCTGAAGTACACAGGCAATGCCAGCGCACTTTCATCTCCCTGAT  
 CAAGACAAGATGGAGGAAGTGAAGCCATGCTGCTCCAGAGACCTGAAGCGGTGGAGAGACTCTCTGG  
 AGTTCCAGAGAGATAGGTGAGCTTACCTGCCAAAGTTTCCATCTCGAGGGACTATAACCTGAACGACAT  
 ACTTCTCCAGCTGGGCATTGAGGAAGCCTTACCAGCAAGGCTGACCTGTGAGGGATCACAGGGGCCAGG  
 AACCTAGCAGTCTCCAGGTGGTCCATAAGGCTGTGCTTGATGTATTTGAGGAGGGCACAGAAGCATCTG  
 CTGCCACAGCAGTCAAAATCACCTCCTTTCTGCATTAGTGGAGACAAGGACCATTGTGCGTTTCAACAG  
 GCCCTTCTGATGATCATTGTCCCTACAGACACCCAGAACATCTTCTTCATGAGCAAAGTACCAATCCC  
 AAGCAAGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC200509 representing NM\_001085  
 Red=Cloning site Green=Tags(s)

MERMLPLLALGLLAAGFCPAVLCHPN SPLDEENLTQENQDRGTHVDLGLASANVDFAFSLYKQLVKAPD  
 KNVIFSPLSISTALAFSLGAHNTL TEILKGLKFNL TETSEAEIHQSFQHLRLTNQSSDELQLSMGNA  
 MFVKEQLSLLDRFTEDAKRLYGSEAFATDFQDSAAAKLINDYVKNTRGKITDLIKDLSQTMMLVNY  
 IFFKAKWEMPFDPQDTHQSRFYL SSKKWVMPMMSLHHLTIPYFRDEEL SCTVVELKYTGNASALFILPD  
 QDKMEEVEAMLLPETLKRWRDSLEFREIGELYLPKFSISRDNLNDILLQLGIEEAFSTKADLSGITGAR  
 NLAVSQVVKAVLDVFEEGTEASAATAVKITLLSALVETRTIVRFNRPFLMIIVPTDTQNIFFMSKYTNP  
 KQA

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_001085

**ORF Size:** 1269 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\\_001085.5](#)

**RefSeq Size:** 1629 bp

**RefSeq ORF:** 1272 bp

**Locus ID:** 12

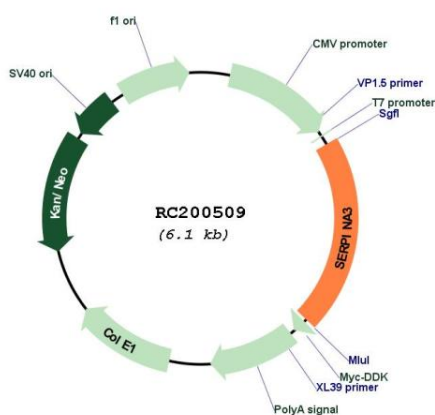
**UniProt ID:** [P01011](#)

**Cytogenetics:** 14q32.13

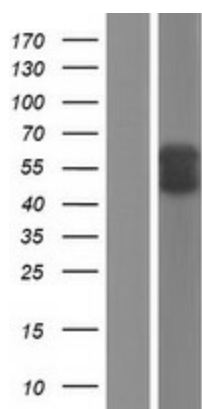
**Domains:** SERPIN  
**Protein Families:** Druggable Genome, Secreted Protein  
**MW:** 47.65 kDa

**Gene Summary:** The protein encoded by this gene is a member of the serpin family of proteins, a group of proteins that inhibit serine proteases. This gene is one in a cluster of serpin genes located on the q arm of chromosome 14. Polymorphisms in this protein appear to be tissue specific and influence protease targeting. Variations in this protein's sequence have been implicated in Alzheimer's disease, and deficiency of this protein has been associated with liver disease. Mutations have been identified in patients with Parkinson disease and chronic obstructive pulmonary disease. [provided by RefSeq, Jun 2020]

**Product images:**



Circular map for RC200509



Western blot validation of overexpression lysate (Cat# [LY421268]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200509 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).