

## Product datasheet for **RG200509**

### 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:	TurboGFP
Symbol:	alpha 1 Antichymotrypsin
Synonyms:	AACT; ACT; GIG24; GIG25
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG200509 representing NM_001085 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGAGAATGTTACCTCTCCTGGCTCTGGGGCTCTTGGCGGCTGGGTTCTGCCCTGCTGTCTCTGCC  
ACCCTAACAGCCCACTTGACGAGGAGAATCTGACCCAGGAGAACCAAGACCGAGGGACACACGTGGACCT  
CGGATTAGCCTCCGCCAAGCTGGACTTCGCTTTCAGCCTGTACAAGCAGTTAGTCCTGAAGGCCCTGAT  
AAGAATGTCATCTTCTCCCACTGAGCATCTCCACCGCCTTGGCCTTCTGTCTCTGGGGGCCATAATA  
CCACCCTGACAGAGATTCTCAAAGGCCTCAAGTTCAACCTCACGGAGACTTCTGAGGCAGAAATTCACCA  
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GCAAGAAAAAGTGGGTAATGGTGCCATGATGAGTTTGCATCACCTGACTATACCTTACTCCGGGACGA  
GGAGCTGTCTGCACCGTGGTGGAGCTGAAGTACACAGGCAATGCCAGCGCACTTTCATCTCCCTGAT  
CAAGACAAGATGGAGGAAGTGAAGCCATGCTGCTCCCAGAGACCCTGAAGCGGTGGAGAGACTCTTGG  
AGTTCAGAGAGATAGGTGAGCTTACCTGCCAAAGTTTTCCATCTCGAGGGACTATAACCTGAACGACAT  
ACTTCTCCAGCTGGGCATTGAGGAAGCCTTACCAGCAAGGCTGACCTGTGAGGGATCACAGGGGCCAGG  
AACCTAGCAGTCTCCAGGTGGTCCATAAGGCTGTGCTTGTATGATTTGAGGAGGGCACAGAAGCATCTG  
CTGCCACAGCAGTCAAAATCACCTCCTTTCTGCATTAGTGGAGACAAGGACCATTTGCGTTTTCAACAG  
GCCCTTCTGATGATCATTGTCCCTACAGACACCCAGAACATCTTCTTCATGAGCAAAGTACCAATCCC  
AAGCAAGCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG200509 representing NM\_001085  
 Red=Cloning site Green=Tags(s)

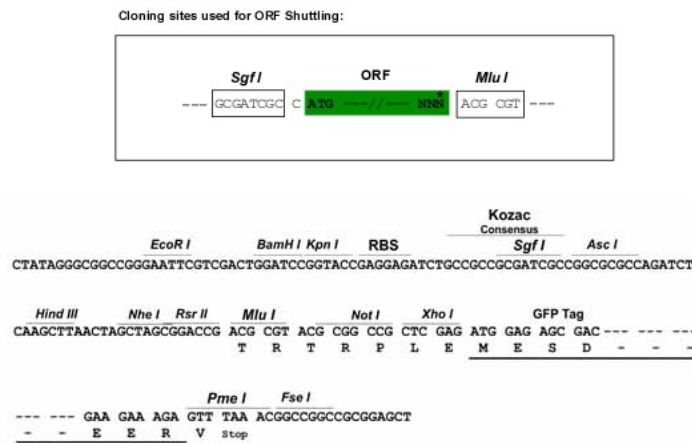
MERMLPLLALGLLAAGFCPAVLCHPN SPLDEENLTQENQDRGTHVDLGLASANVDFAFSLYKQLVLKAPD  
 KNVIFSPLSISTALAFSLGAHNNTL TEILKGLKFNL TETSEAEIHQSFQHLLRTL NQSSDELQLSMGNA  
 MFVKEQLSLLDRFTEDAKRLYGSEAFATDFQDSAAAKLINDYVKNKTRGKITDLIKDLSQTMMLVNY  
 IFFKAKWEMPFDPQDTHQSRFYLSKKKWMVPMMSLHHLTIPYFRDEEL SCTVVELKYTGNASALFILPD  
 QDKMEEVEAMLLPETLKRWRDLSLEFREIGELYLPKFSISRDNLNDILLQLGIEEAFTSKADLSGITGAR  
 NLAVSQVVHKAVLDVFEEGTEASAATAVKITLLSALVETRTIVRFNRPFLMIIVPTDTQNIFFMSKVTPN  
 KQA

TRTRPLE – GFP Tag – V

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja3795\\_b08.zip](https://cdn.origene.com/chromatograms/ja3795_b08.zip)

**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](#)

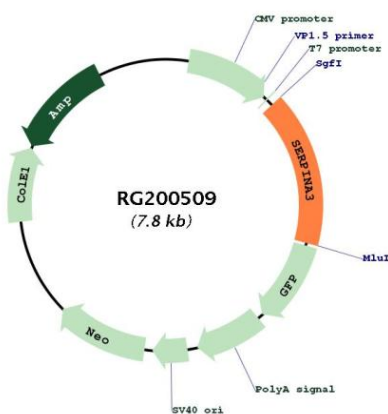
**Cytogenetics:** 14q32.13

**Domains:** SERPIN

**Protein Families:** Druggable Genome, Secreted Protein

**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 RG200509