

Product datasheet for **SC300409**

alpha 1 Antitrypsin (SERPINA1) (NM_001002236) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	alpha 1 Antitrypsin (SERPINA1) (NM_001002236) Human Untagged Clone
Tag:	Tag Free
Symbol:	alpha 1 Antitrypsin
Synonyms:	A1A; A1AT; AAT; alpha1AT; nNIF; PI; PI1; PRO2275
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_001002236 edited
 GGAAGGCCTAGCTGCTGCTGCCAGGAATCCAGGTTGGAGGGCGGCAACCTCCTGC
 CAGCCTTCAGGCCACTCTCCTGTGCCTGCCAGAAGAGACAGAGCTTGAGGAGAGCTTGAG
 GAGAGCAGGAAAGCAGCCTCCCCGTTGCCCTCTGGATCCACTGCTTAAATACGGACGA
 GGACAGGGCCCTGTCTCCTCAGCTTCAGGCACCACCTGACCTGGGACAGTGAATCGAC
 AATGCCGTCTTCTGTCTCGTGGGCATCCTCCTGCTGGCAGGCCTGTGCTGCCTGGTCCC
 TGTCTCCCTGGCTGAGGATCCCCAGGGAGATGCTGCCAGAAGACAGATACATCCCACCA
 TGATCAGGATCACCCAACCTTCAACAAGATCACCCCAACCTGGCTGAGTTCGCCTTCAG
 CCTATACCGCCAGCTGGCACACCAGTCCAACAGCACCAATATCTTCTTCTCCCCAGTGAG
 CATCGCTACAGCCTTTGCAATGCTCTCCCTGGGGACCAAGGCTGACACTCACGATGAAAT
 CCTGGAGGGCCTGAATTTCAACCTCACGGAGATTCCGGAGGCTCAGATCCATGAAGGCTT
 CCAGGAACTCCTCCGTACCCTCAACCAGCCAGACAGCCAGCTCCAGCTGACCACCGGCAA
 TGGCCTGTTCTCAGCGAGGGCCTGAAGCTAGTGGATAAGTTTTTGGAGGATGTTAAAAA
 GTTGTACCACTCAGAAGCCTTCACTGTCAACTTCGGGGACACCGAAGAGGCCAAGAAACA
 GATCAACGATTACGTGGAGAAGGGTACTCAAGGGAAAATTGTGGATTTGGTCAAGGAGCT
 TGACAGAGACACAGTTTTTGGCTCTGGTGAATTACATCTTCTTTAAAGGCAATGGGAGAG
 ACCCTTTGAAGTCAAGGACACCGAGGAAGGACTTCCACGTGGACCAGGCGACCACCGT
 GAAGGTGCCTATGATGAAGCGTTTAGGCATGTTTAACTCCAGCACTGTAAGAAGCTGTC
 CAGCTGGGTGCTGCTGATGAAATACCTGGGCAATGCCACCGCCATCTTCTTCTCCTGCTGA
 TGAGGGGAAACTACAGCACCTGGAAAATGAACTCACCCACGATATCATCACCAAGTTCTT
 GGAAAAATGAAGACAGAAGGTCTGCCAGCTTACATTTACCCAACTGTCCATTACTGGAAC
 CTATGATCTGAAGAGCGTCTGGGTCAACTGGGCATCACTAAGGTCTTCCAGCAATGGGGC
 TGACCTCTCCGGGTACAGAGGAGGCACCCCTGAAGCTCTCCAAGGCCGTGCATAAAGGC
 TGTGCTGACCATCGACGAGAAAGGGACTGAAGCTGCTGGGGCCATGTTTTTAGAGCCAT
 ACCCATGTCTATCCCCCGAGGTCAAGTTCAACAAACCTTTGTCTTCTTAATGATTGA
 AAAAAATACCAAGTCTCCCTCTTATGGGAAAAGTGGTGAATCCACCCAAAAATAACT
 GCCTCTCGCTCCTCAACCCTCCCTCCATCCCTGGCCCCCTCCCTGGATGACATTAAG
 AAGGGTTGAGCTGGAAA
 AAAAAAAAAAAAA

Restriction Sites: NotI-NotI

ACCN: NM_001002236

Insert Size: 1600 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: The insert of this clone has been fully sequenced and found the ORF is a perfect match to NM_001002236.1 except for one SNP.

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:	<ol style="list-style-type: none">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:	<u>NM_001002236.1</u> , <u>NP_001002236.1</u>
RefSeq Size:	1902 bp
RefSeq ORF:	1257 bp
Locus ID:	5265
UniProt ID:	<u>P01009</u>
Cytogenetics:	14q32.13
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein
Protein Pathways:	Complement and coagulation cascades
Gene Summary:	<p>The protein encoded by this gene is a serine protease inhibitor belonging to the serpin superfamily whose targets include elastase, plasmin, thrombin, trypsin, chymotrypsin, and plasminogen activator. This protein is produced in the liver, the bone marrow, by lymphocytic and monocytic cells in lymphoid tissue, and by the Paneth cells of the gut. Defects in this gene are associated with chronic obstructive pulmonary disease, emphysema, and chronic liver disease. Several transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Aug 2020]</p> <p>Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. All eleven variants encode the same protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no single transcript was available for the full length of the gene. The extent of this transcript is supported by transcript alignments.</p>