

Product datasheet for **SC322312**

alpha 1 Antitrypsin (SERPINA1) (NM_000295) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	alpha 1 Antitrypsin (SERPINA1) (NM_000295) Human Untagged Clone
Tag:	Tag Free
Symbol:	alpha 1 Antitrypsin
Synonyms:	A1A; A1AT; AAT; alpha1AT; nNIF; PI; PI1; PRO2275
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for SC322312
AAGCTGTACACTGCCAGGCAAAGCGTCCGGGCAGCGTAGGCGGGCGACTCAGATCCCAG
CCAGTGGACTTAGCCCCTGTTTGTCTCCTCCGATAACTGGGGTGACCTTGGTTAATATTCA
CCAGCAGCCTCCCCGTTGCCCTCTGGATCCACTGCTTAAATACGGACGAGGACAGGGC
CCTGTCTCCTCAGCTTCAGGCACCACACTGACCTGGGACAGTGAATCGACAATGCCGTC
TTCTGTCTCGTGGGCATCCTCTGTGTCAGGCTGTGCTGCCTGGTCCCTGTCTCCCT
GGCTGAGGATCCCAGGAGATGCTGCCAGAAGACAGATACATCCCACCATGATCAGGA
TCACCAAACCTTCAACAAGATCACCCCAACCTGGCTGAGTTTCGCCTTCAGCCTATACCG
CCAGCTGGCACACCAGTCCAACAGCACCAATATCTTCTTCTCCCCAGTGAGCATCGCTAC
AGCCTTTGCAATGCTCTCCCTGGGGACCAAGGCTGACACTCACGATGAAATCCTGGAGGG
CCTGAATTTCAACCTCACGGAGATTCCGGAGGCTCAGATCCATGAAGGCTTCCAGGAACT
CCTCCGTACCCTCAACCAGCCAGACAGCCAGCTCCAGCTGACCACCGGCAATGGCTTGT
CCTCAGCGAGGGCTGAAGCTAGTGGATAAGTTTTTGGAGGATGTTAAAAAGTTGTACCA
CTCAGAAGCCTTCACTGTCAACTTCGGGGACACCGAAGAGGCCAAGAAACAGATCAACGA
TTACGTGGAGAAGGGTACTCAAGGGAAAATTGTGGATTTGGTCAAGGAGCTTGACAGAGA
CACAGTTTTTGTCTGGTGAATTACATCTTCTTAAAGGCAAATGGGAGAGACCCCTTGA
AGTCAAGGACACCGAGGAAGAGGACTTCCACGTGACCAGGTGACCACCGTGAAGGTGCC
TATGATGAAGCGTTTAGGCATGTTAACATCCAGCACTGTAAGAAGCTGTCCAGCTGGGT
GCTGCTGATGAAATACCTGGGCAATGCCACCGCCATCTTCTTCTGCCTGATGAGGGGAA
ACTACAGCACCTGGAAAATGAACTACCCACGATATCATCAACAAGTTCTCGGAAAATGA
AGACAGAAGGTCTGCCAGCTTACATTTACCCAACTGTCCATTACTGGAACCTATGATCT
GAAGAGCGTCTGGGTCAACTGGGCATCACTAAGGTCTTCAGCAATGGGGCTGACCTCTC
CGGGTCACAGAGGAGGCACCCCTGAAGCTCTCCAAGCCGTGCATAAGGCTGTGCTGAC
CATCGACGAGAAAAGGACTGAAGCTGTGGGGCCATGTTTTTAGAGGCCATACCCATGTC
TATCCCCCGAGGTCAAGTTCAACAAACCCCTTGTCTTCTTAATGATTGACAAAATAC
CAAGTCTCCCCTTTCATGGGAAAAGTGGTGAATCCCACCCAAAAATAACTGCCTCTCGC
TCCTCAACCCCTCCCCTCCATCCCTGGCCCCCTCCCTGGATGACATTAAGAAGGGTTGA
GCTGGAAAAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_000295

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: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_000295.3](#), [NP_000286.3](#)

RefSeq Size: 1607 bp

RefSeq ORF: 1257 bp

Locus ID: 5265

UniProt ID: [P01009](#)

Cytogenetics: 14q32.13

Domains: SERPIN

Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein

Protein Pathways: Complement and coagulation cascades

Gene Summary: 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]

Transcript Variant: This variant (1) encodes the same protein as the other ten variants of this gene. 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.