

## Product datasheet for RC225656

### alpha 1 Antitrypsin (SERPINA1) (NM\_001127701) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	alpha 1 Antitrypsin (SERPINA1) (NM_001127701) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	alpha 1 Antitrypsin
Synonyms:	A1A; A1AT; AAT; alpha1AT; nNIF; PI; PI1; PRO2275
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC225656 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCGCTTCTGTCTCGTGGGGCATCCTCCTGCTGGCAGGCCTGTGCTGCCTGGTCCCTGTCTCCCTGG  
CTGAGGATCCCCAGGGAGATGCTGCCAGAAGACAGATACATCCCACCATGATCAGGATCACCCAACCTT  
CAACAAGATACCCCCAACCTGGCTGAGTTCGCCTTCAGCCTATACCGCCAGCTGGCACACCAGTCCAAC  
AGCACCAATATCTTCTTCTCCCCAGTGAGCATCGCTACAGCCTTTGCAATGCTCTCCCTGGGGACCAAGG  
CTGACACTCACGATGAAATCCTGGAGGGCCTGAATTTCAACCTCACGGAGATTCCGGAGGCTCAGATCCA  
TGAAGGCTTCCAGGAACTCCTCCGTACCCTCAACCAGCCAGACAGCCAGCTCCAGCTGACCACCGCAAT  
GGCTTGTCTCAGCGAGGGCCTGAAGCTAGTGGATAAGTTTTGGAGGATGTTAAAAAGTTGTACCACT  
CAGAAGCCTTCACTGTCAACTTCGGGGACACCGAAGAGGCCAAGAAACAGATCAACGATTACGTGGAGAA  
GGTACTCAAGGGAAAAATTGTGGATTTGGTCAAGGAGCTTGACAGAGACACAGTTTTGTCTGGTGAAT  
TACATCTTCTTTAAAGGCAATGGGAGAGACCTTTGAAGTCAAGGACACCGAGGAAGAGGACTTCCACG  
TGGACCAGGTGACCACCGTGAAGTGCCTATGATGAAGCGTTTAGCATGTTAACATCCAGCACTGTA  
GAAGCTGTCCAGCTGGGTGCTGCTGATGAAATACCTGGCAATGCCACCGCCATCTTCTCTGCCTGAT  
GAGGGGAAACTACAGCACCTGGAAAATGAACTCACCCACGATATCATACCAAGTTCTGGAAAATGAAG  
ACAGAAGGTCTGCCAGTTACATTTACCCAAACTGTCCATTACTGGAACCTATGATCTGAAGAGCGTCT  
GGGTCAACTGGGCATCACTAAGGTCTTACGAATGGGGCTGACCTCTCCGGGGTACAGAGGAGGCCACCC  
CTGAAGCTCTCCAAGCCGTGCATAAGGCTGTGCTGACCATCGACGAGAAAGGGACTGAAGCTGCTGGG  
CCATGTTTTAGAGGCCATACCCATGTCTATCCCCCGAGGTCAAGTTCAACAAACCTTTGTCTTCTT  
AATGATTGACCAAAATACCAAGTCTCCCCTCTTCATGGGAAAAGTGGTGAATCCCACCAAAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**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\\_001127701.1](#), [NP\\_001121173.1](#)

**RefSeq Size:** 3532 bp

**RefSeq ORF:** 1257 bp

**Locus ID:** 5265

**UniProt ID:** [P01009](#)

**Cytogenetics:** 14q32.13

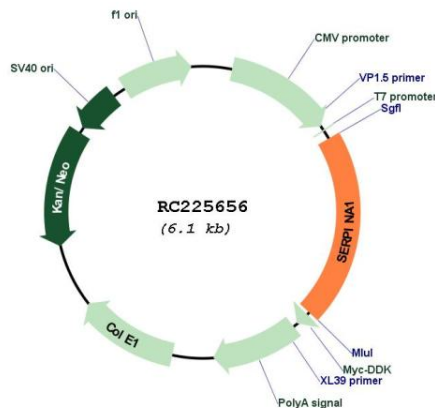
**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein

**Protein Pathways:** Complement and coagulation cascades

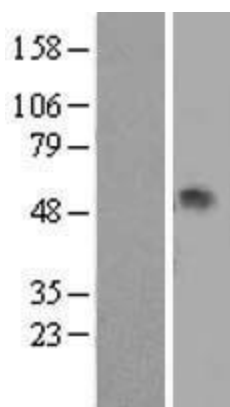
**MW:** 46.7 kDa

**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]

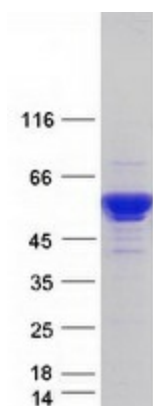
**Product images:**



Circular map for RC225656



Western blot validation of overexpression lysate (Cat# [LY426858]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC225668] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SERPINA1 protein (Cat# [TP325656]). The protein was produced from HEK293T cells transfected with SERPINA1 cDNA clone (Cat# RC225656) using MegaTran 2.0 (Cat# [TT210002]).