

## Product datasheet for SC110817

### alpha 2 Macroglobulin (A2M) (NM\_000014) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	alpha 2 Macroglobulin (A2M) (NM_000014) Human Untagged Clone
Tag:	Tag Free
Symbol:	alpha 2 Macroglobulin
Synonyms:	A2MD; CPAMD5; FWP007; S863-7
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC110817 sequence for NM_000014 edited (data generated by NextGen Sequencing)

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ATGGGGAAGAACAACAACTCCTTCATCCAAGTCTGGTTCTTCTCCTCTTGGTCTCCTGCC
ACAGACGCCTCAGTCTCTGGAAAACCGCAGTATATGGTTCTGGTCCCCTCCCTGCTCCAC
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GCAAAGGGAGGCATTGTCCGAAGTGGGACTCATGGACTGCTTGTGAAGCAGGAAGACATG  
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GCTGAGTACAATGCTCCTTGCAGCAAAGATCTTGAAATGCTTGA

Clone variation with respect to NM\_000014.4  
3871 c=>n;3872 a=>n

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_000014 unedited  
 GGTACGAATTGTATACGATCACTATAGGCGGCCTGCGAATCGGCACGAGGCTTCTTTCT  
 GCAACATGGGNGAAGAACAACAACTCCTTCATCCAAGTCTGGTTCTTCTCCTCTTGGTCCTC  
 CTGCCCACAGACGCCTCAGTCTCTGGAAAACCGCAGTATATGGTTCTGGTCCCCTCCCTG  
 CTCCACACTGAGACCACTGAGAAGGGCTGTGTCCTTCTGAGCTACCTGAATGAGACAGTG  
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 GAGGTAATGTTCCCTCACTGTCCAAGTGAAGGACCAACCCAAGAATTTAAGAAGCGGACC  
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 TCACCATCTTGAAGAAGAGAGAAAAGTATCAATGTGTGGCCTATACCATATGGGAAGCCT  
 GTCCTGGCATGTGACTGTGAGCATTGCAAAGGTATAGTGACCCTCCCGACGCCCGGT  
 GAAG

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_000014 unedited  
 ACTTCCAGGGCCAGNANAGCACTGGGGAGGGTCACAGGGATGCCACCCGGGATCTGTTC  
 AGGAAACAGCTATGACCCGCGCCGAATCTAGAGTCGAGNNNTTTTTTTTTTTTTTTTTT  
 TTTTTTTTTTTTTTTTTTTTTTAAACATTGACCAAAAAAGTGTATTATCAAGTCT  
 TTAAGATACAAAACACGTGTTTTTGGGGAGCTTTGAAAACAGGACTCCAGCAAAGCA  
 CTTTTCAGCCTTGGGGTCTTCAAGCATTCCAAGATCTTTGGTGAAGGAGCATTGTACT  
 CAGCAATTGCAAACATCCGCTCTGGAGAAATCATAAACTTTCACTATGGGTGGTTTCA  
 AATCTTTTACTGGGACATTTTGAAAACCGGGAAAAACAAGCTCAGGGTCTGATTTGACA  
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 ATCTTTCAAGCATTTCCTGTTGGCTTCAAGGGAAATGAAGCCAAGACCATTTTCACAT  
 CAACGATCGCCATGTTGGAGGCAAGCGCTCCCTGTGTAAGTACACTTAGGGAGATTT  
 GGAAGCTGGTGTGGCTTTGGGTTATCACAAGTTGAGGCAGAGTCTGCACTCCTAAAG  
 CAAAGGGGAACTTCTCTTTTCTGGGAGATATTGGATTTAAGGATGTCTGGAGGTAGACA  
 CATCCTCTCTGGCACTTTATGCTGGATTCCCAGCAGCTCTGAATGAGACTGCTGAGTAC  
 AGGGGTTGTGTTCCCTGGGAATTGCTGAAAAGTCTGAGACTGAAGTCCCTGGCACCT  
 TCCAGNCTGGGAATGGGTGCTCTATTGACAAGCTGGAAGCCCCCTGGTCTGGTGAGGAAA  
 CCGCCTGCATTGTCTNGGACACTACAGGTGGGAGGGAAGCCTCCAGTGGGCG

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_000014

**Insert Size:**

5150 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).

**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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_000014.4</a> , <a href="#">NP_000005.2</a>
<b>RefSeq Size:</b>	4678 bp
<b>RefSeq ORF:</b>	4425 bp
<b>Locus ID:</b>	2
<b>UniProt ID:</b>	<a href="#">P01023</a>
<b>Cytogenetics:</b>	12p13.31
<b>Domains:</b>	A2M, A2M_N
<b>Protein Families:</b>	Druggable Genome, Secreted Protein
<b>Protein Pathways:</b>	Complement and coagulation cascades
<b>Gene Summary:</b>	<p>The protein encoded by this gene is a protease inhibitor and cytokine transporter. It uses a bait-and-trap mechanism to inhibit a broad spectrum of proteases, including trypsin, thrombin and collagenase. It can also inhibit inflammatory cytokines, and it thus disrupts inflammatory cascades. Mutations in this gene are a cause of alpha-2-macroglobulin deficiency. This gene is implicated in Alzheimer's disease (AD) due to its ability to mediate the clearance and degradation of A-beta, the major component of beta-amyloid deposits. A related pseudogene, which is also located on the p arm of chromosome 12, has been identified. [provided by RefSeq, Nov 2016]</p> <p>Transcript Variant: This variant (1) encodes the longest isoform (a). Both variants 1 and 2 encode isoform a.</p>