

## Product datasheet for **RG207905**

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

#### Product data:

Product Type:	Expression Plasmids
Product Name:	alpha 2 Macroglobulin (A2M) (NM_000014) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	alpha 2 Macroglobulin
Synonyms:	A2MD; CPAMD5; FWP007; S863-7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG207905 representing NM_000014 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

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ACGCGTACGCGGCGCTCGAG - GFP Tag - GTTTAA

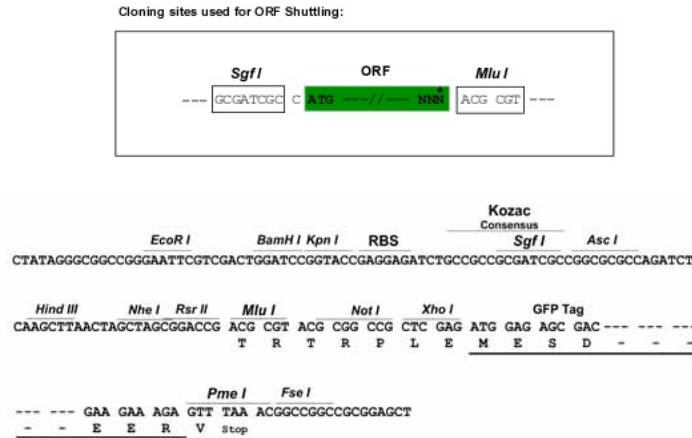
Protein Sequence: >RG207905 representing NM\_000014  
 Red=Cloning site Green=Tags(s)

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 GQTVKFRVVSMDENFHLNLIPLVYIQDPKGNRIAQWQSFQLEGLKQFSFPLSSEPFQGSYKVVVQKK  
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 KKL SFYYLIMAKGGIVRTGTHGLLVKQEDMKGHFISISIPVKSIDIAPVARLLIYAVLPTGDVIGDSAKYDV  
 ENCLANKVDL SFSPSQSLPASHAHLRVTAAPQSVCALRAVDQSVLLMKPDAEL SASSVYNLLPEKDLTGF  
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 EKETTFNSLLCPSSGGEVSEELSLKLPNNVVEESARASVSVLGDILG SAMQNTQNLLQMPYGCGEQNMVLF  
 APNIYVLDYLNQQLTPEVKSKAIGYLN TGYQRQLNYKHYDGSYSTFGERYGRNQNTWLTAFVLKTF A  
 QARAYIFIDEAHITQAL IWL SQRQKDNCGFRSSGSLNNAIKGGVEDEVTL SAYITIALLEIPLTVTHPV  
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 NILPEKEEFPFALGVQTLPTQCDPEKAHTSFQISL SVSYTGSR SASNMAI VDKMVS GF IPLKPTVKMLE  
 RSNHVSRT EVSSNHVLIYLDKVS NQTL S LFFTVLQDVPVRDLKPAIVKVYDY YETDEFAIAEYNAPCSKD  
 LGNA

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

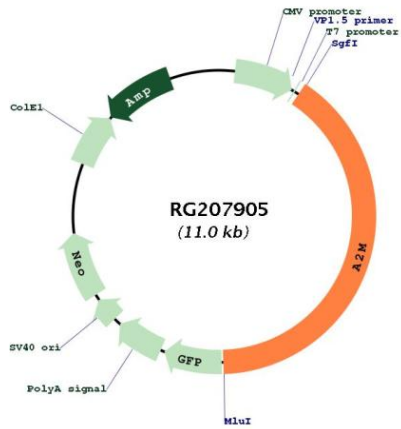


ACCN: NM\_000014

ORF Size: 4422 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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>	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]

Product images:



Circular map for RG207905