

Product datasheet for **RG209386**

Salivary alpha amylase (AMY1A) (NM_001008221) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Salivary alpha amylase (AMY1A) (NM_001008221) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	AMY1A
Synonyms:	AMY1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG209386 representing NM_001008221
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGCTCTTTTGGTTGCTTTTACCATTGGGTTCTGCTGGGCTCAGTATTCCTCAAATACACAACAAG
 GACGAACATCTATTGTTCACTGTTGAATGGCGATGGGTTGATATTGCTCTTGAATGTGAGCGATATTT
 AGCTCCCAAGGGATTTGGAGGGTTTCAGGTCTCTCCACCAAAATGAAAATGTTGCCATTCACAACCCTTTC
 AGACCTTGGTGGGAAAGATACCAACCAGTTAGCTATAAATTATGCACAAGATCTGGAAATGAAGATGAAT
 TTAGAAACATGGTACTAGTGAACAATGTTGGGTTCTGATTTATGTGGATGCTGTAATTAATCATAT
 GTGTGGTAATGCTGTGAGTGCAGGAACAAGCAGTACCTGTGGAAGTACTTCAACCCTGGAAGTAGGGAC
 TTTCCAGCAGTCCCATATCTGGATGGGATTTAATGATGGTAAATGTAAAAGTGAAGTGGAGATATCG
 AGAACTATAATGATGCTACTCAGGTGAGAGATTGCTGCTGTCTGGTCTTCTCGATCTTGCCTGGGAA
 GGATTATGTGCGTTCTAAGATTGCCGAATATGAACCATCTCATTGACATTGGTGTTCAGGGTTCAGA
 ATTGATGCTTCCAAGCAGATGTGCCTGGAGACATAAAGGCAATTTTGGACAACTGCATAATCTAAACA
 GTAACCTGGTCCCGAAGGTAGTAAACCTTTCATTTACCAGGAGGTAATTGATCTGGGTGGTGGACCAAT
 TAAAAGCAGTACTACTTTGGTAAATGGCCGGGTGACAGAAATCAAGTATGGTGCAAACTCGGCACAGTT
 ATTCGCAAGTGGAAATGGAGAGAAGATGTCTTACTTAAAGAAGTGGGAGAAAGGTTGGGTTTTCATGCCTT
 CTGACAGAGCGCTTGTCTTTGTGGATAACCATGACAATCAACGAGGACATGGCGCTGGAGGAGCCTCTAT
 ACTTACCTTCTGGGATGCTAGGCTGTACAAAATGGCAGTTGGATTTATGCTTGTCTCATCCTTATGGATT
 ACACGATAATGTCAAGTACCCTTGGCCAAGATATTTGAAAATGAAAAGATGTAATGATTGGGTTG
 GCCACCAATGATAATGGAGTAACTAAAGAAGTACTATTAATCCGGACACTACTTGTGGCAATGACTG
 GGTCTGTGAACATCGATGGCGCCAATAAAGGAACATGGTTAATTTCCGCAATGTAGTGGATGGCCAGCCT
 TTTACAACTGGTATGATAATGGGAGCAACCAAGTGGCTTTTGGGAGAGGAAACAGAGGATTCATTGTTT
 TCAACAATGATGACTGGACATTTTCTTTAACTTTGCAAAGTGGTCTTCTGCTGGCACATACTGTGATGT
 CATTTCTGGAGATAAAATTAATGGCACTGCACAGGCATTAATACTACGTTTCTGATGATGGCAAAGCT
 CATTTTCTATTAGTAAGTCTGCTGAAGATCCATTTATTGCAATTCATGCTGAATCTAAATTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG209386 representing NM_001008221
 Red=Cloning site Green=Tags(s)

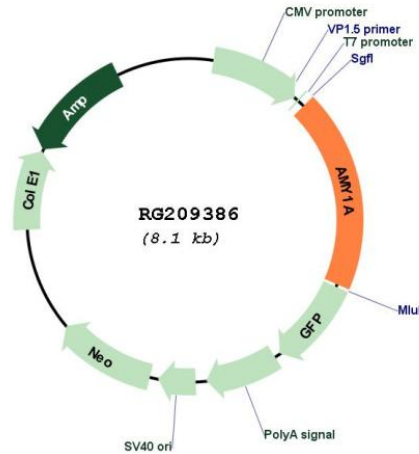
MKLFWLLFTIGFCWAQYSSNTQQGRTSIVHLFEWRWVDIALECERYLAPKGGVQVSPNENVAIHNP
 RPWWERYQPVSYKLCTRSNGNEDEFNMVTRCANNVGVRIYVDAVINHMCNAVSAGTSSTCGSYFNPGRD
 FPAVPYSGWDFNDGKCKTGSVDIENYNDATQVRDCRLSGLLDLALGKDYVRSKIAEYMNHLIDIGVAGFR
 IDASKHMWPGDIKAILDKLHNLNSNWFPEGSKPFYQEVIDLGGPEIKSSDYFGNGRVTEFKYGA
 LKLVYRIRKWNGEKMSYLKNWEGWGFMPSPDRALVFVDNHDNQRGHGAGGASILTFWDARLYKMAVGF
 MLAHPYGFTRVMSSYRWPYFENGKDVNDWVPPNDNGVTKEVTINPDTCGNDWVCEHRWRQIRN
 MVNFRNVVDGQPFNWDYDNGSNQVAFGRNRFIVFNDDWTFSLTLQTGLPAGTYCDVISGDKINGNCTGI
 KIYVSDDGKAHFSISNSAEDPFIHHAESKL

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-Mlul

Plasmid Map:



ACCN: NM_001008221

ORF Size: 1533 bp

OTI Disclaimer: 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. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_001008221.1</u> , <u>NP_001008222.1</u>
RefSeq Size:	1781 bp
RefSeq ORF:	1536 bp
Locus ID:	276
UniProt ID:	<u>P04745</u>
Cytogenetics:	1p21.1
Protein Families:	ES Cell Differentiation/IPS, Secreted Protein
Protein Pathways:	Metabolic pathways, Starch and sucrose metabolism
Gene Summary:	Amylases are secreted proteins that hydrolyze 1,4-alpha-glucoside bonds in oligosaccharides and polysaccharides, and thus catalyze the first step in digestion of dietary starch and glycogen. The human genome has a cluster of several amylase genes that are expressed at high levels in either salivary gland or pancreas. This gene encodes an amylase isoenzyme produced by the salivary gland. Alternative splicing results in multiple transcript variants encoding the same protein. [provided by RefSeq, Jul 2008]