

Product datasheet for **RC209386**

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:	Myc-DDK
Symbol:	Salivary alpha amylase
Synonyms:	AMY1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC209386 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAAGCTCTTTTGGTTGCTTTTACCATTGGGTTCTGCTGGGCTCAGTATTCCTCAAATACACAACAAG
 GACGAACATCTATTGTTTCATCTGTTGAATGGCGATGGGTTGATATTGCTTGAATGTGAGCGATATTT
 AGCTCCCAAGGGATTTGGAGGGTTTCAGGTCTCTCCACCAAATGAAAATGTTGCCATTCACAACCCTTTC
 AGACCTTGGTGGGAAAGATACCAACCAGTTAGCTATAAATTATGCACAAGATCTGGAAATGAAGATGAAT
 TTAGAAACATGGTACTAGTGAACAATGTTGGGTTCTGATTTATGTGGATGCTGTAATTAATCATAT
 GTGTGGTAATGCTGTGAGTGCAGGAACAAGCAGTACCTGTGGAAGTACTTCAACCCTGGAAGTAGGGAC
 TTTCCAGCAGTCCCATATTTCTGGATGGGATTTAATGATGGTAAATGTAAAAGTGAAGTGGAGATATCG
 AGAACTATAATGATGCTACTCAGGTGAGAGATTGCTGCTGTCTGGTCTTCTCGATCTTGCAGTGGGAA
 GGATTATGTGCGTTCTAAGATTGCCGAATATATGAACCATCTCATTGACATTGGTGTTCAGGGTTCAGA
 ATTGATGCTTCCAAGCAGATGTGGCCTGGAGACATAAAGGCAATTTTGGACAACTGCATAATCTAAACA
 GTAACCTGGTCCCGAAGGTAGTAAACCTTTCATTTACCAGGAGGTAATTGATCTGGGTGGTGGACCAAT
 TAAAAGCAGTGACTACTTTGGTAAATGGCCGGTGACAGAAATCAAGTATGGTGCAAACTCGGCACAGTT
 ATTCGCAAGTGGAAATGGAGAGAAGATGTCTTACTTAAAGAAGTGGGAGAAAGGTTGGGTTTTCATGCCTT
 CTGACAGAGCGCTTGTCTTTGTGGATAACCATGACAATCAACGAGGACATGGCGCTGGAGGAGCCTCTAT
 ACTTACCTTCTGGGATGCTAGGCTGTACAAAATGGCAGTTGGATTTATGCTTGTCTCATCCTTATGGATT
 ACACGATAATGTCAAGTACCCTGGCCAAGATATTTGAAAATGAAAAGATGTAATGATTGGGTTG
 GGCCACCAAATGATAATGGAGTAACTAAGAAGTTACTATTAATCCGGACACTACTTGTGGCAATGACTG
 GGTCTGTGAACATCGATGGCGCCAATAAAGGAACATGGTTAATTTCCGCAATGTAGTGGATGGCCAGCCT
 TTTACAACTGGTATGATAATGGGAGCAACCAAGTGGCTTTTGGGAGAGGAAACAGAGGATTCATTGTTT
 TCAACAATGATGACTGGACATTTTCTTTAACTTTGCAAAGTGGTCTTCTGCTGGCACATACTGTGATGT
 CATTTCTGGAGATAAAATTAATGGCAACTGCACAGGCATTAATAATCTACGTTTCTGATGATGGCAAAGCT
 CATTTTCTATTAGTAACTCTGCTGAAGATCCATTTATTGCAATTCATGCTGAATCTAAATTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC209386 protein sequence
 Red=Cloning site Green=Tags(s)

MKLFWLLFTIGFCWAQYSSNTQQGRTSIVHLFEWRWVDIALECERYLAPKGGVQVSPNENVAIHNP
 RPWWERYQPVSYKLCTRSNEDEFNMVTRCANNVGVRIYVDAVINHMCGNAVSAGTSSTCGSYFNPGRD
 FPAVPYSGWDFNDGKCKTSGSDIENYNDATQVRDCRLSGLLDLALGKDYVRSKIAEYMNHLIDIGVAGFR
 IDASKHMWPGDIKAILDKLHNLNSNWFPEGSKPFYQEVIDLGGPEIKSSDYFGNGRVTEFKYGA
 LKLTVIRKWNGEKMSYLKNWEGWGFMPSPDRALVVDNHDNQRGHGAGGASILTFWDARLYKMAVGF
 MLAHPYGFTRVMSSYRWPYFENGKDVNDWVGPPNDNGVTKEVTINPDTCGNDWVCEHRWRQIRN
 MVNFRNVVDGQPFNWDYDNGSNQVAFGRGNRGFIVFNDDWTFSLTLQTGLPAGTYCDVISGDKING
 NCTGIKIYVSDDGKAHFSISNSAEDPFIATHAESKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6666_c03.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


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:

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_001008221.1](#), [NP_001008222.1](#)

RefSeq Size: 1781 bp

RefSeq ORF: 1536 bp

Locus ID: 276

UniProt ID: [P04745](#)

Cytogenetics: 1p21.1

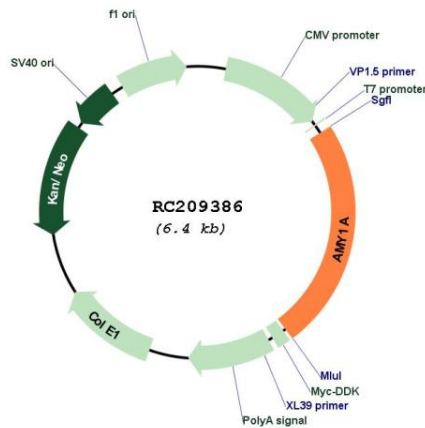
Protein Families: ES Cell Differentiation/IPS, Secreted Protein

Protein Pathways: Metabolic pathways, Starch and sucrose metabolism

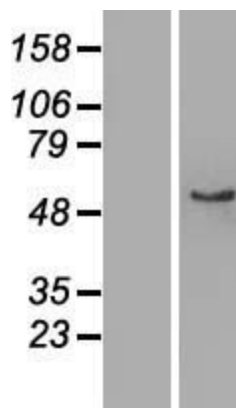
MW: 57.8 kDa

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]

Product images:



Circular map for RC209386



Western blot validation of overexpression lysate (Cat# [LY423398]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209386 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).