*h*LYAG/GAA VersaClone cDNA

Catalog Number: RDC2046

Specifications:

Gene:	*h*GAA
Accession:	NP_000143
Insert size:	2872bp
Concentration:	10µg at 0.2µg/µL

Description

This shuttle vector contains the complete ORF for the gene of interest, along with a Kozak consensus sequence for optimal translation initiation. It is inserted NotI to AscI. The gene insert is flanked with convenient multiple cloning sites which can be used to easily cut and transfer the gene cassette into your desired expression vector.

Preparation and Storage

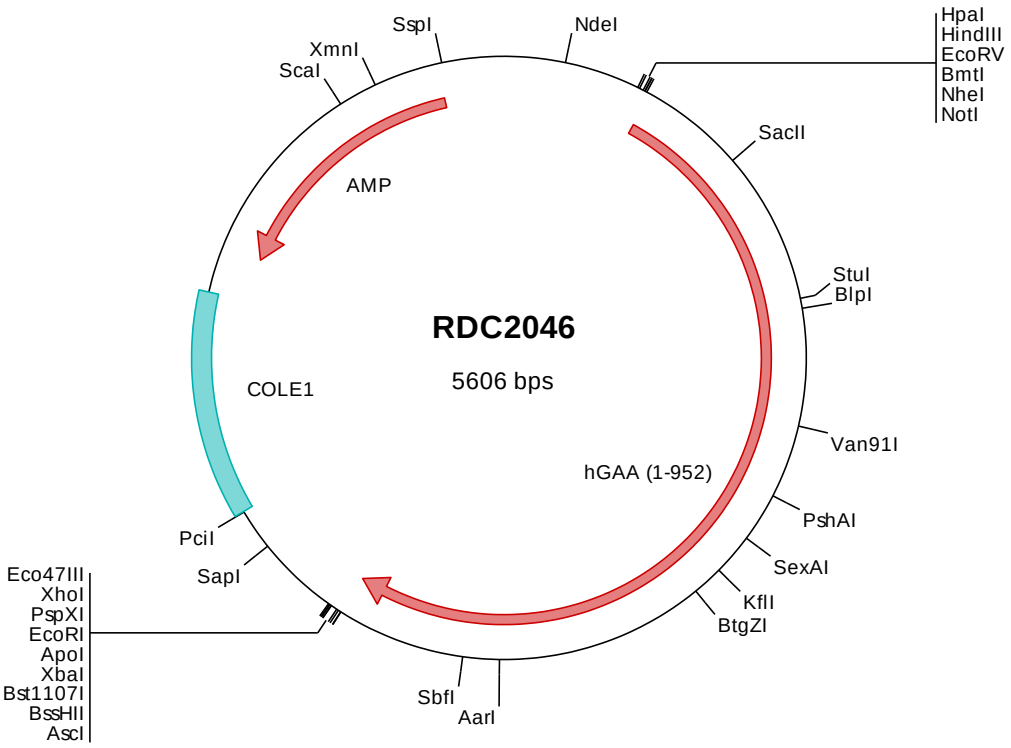
Formulation	cDNA is provided in 10 mM Tris-Cl, pH 8.5
Shipping	Ships at ambient temperature
Stability	1 year from date of receipt when stored at -20°C to -80°C
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

*h*LYAG/GAA cDNA Plasmid

GAA glucosidase alpha, acid
[*Homo sapiens* (human)]

Also known as: LYAG

Summary:
GAA is a lysosomal acid glucosidase that is involved in the degradation of glycogen. GAA undergoes proteolytic processing to generate a mature enzyme that cleaves alpha-1-4 and alpha-1-6 glycosidic bonds of glycogen, maltose and intermediate oligosaccharides within the lysosome. Mice lacking GAA exhibit symptoms similar to human Pompe syndrome such as accumulation of glycogen in cardiac and skeletal muscle lysosomes resulting in reduced mobility and strength. Alternatively spliced transcripts encoding different proteins have been described.



FOR RESEARCH USE ONLY

NOT FOR USE IN HUMANS

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> RDC2046 Plasmid DNA Sequence

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 101  tcagggcgcg tcagcgggtg ttggcgggtg tcggggctgg cttaactatg cggcatcaga gcagattgta ctgagagtgc accatatgcg gtgtgaaata
 201  ccgcacagat gcgtaaggag aaaataccgc atcaggcgcc attcgccatt caggctgcgc aactgttggg aagggcgatc ggtgcgggcc tcttcgctat
 301  tacgccagct ggcgaaaggg ggatgtgctg caaggcgatt aagttgggta acgccagggt tttcccagtc acgacgttgt aaaacgacgg ccagtgaatt
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 601  gagactcacc cagctcacca gcagggagcc agtagaccag ggccccggga tgcccaggca caccccggcc gtcccagagc agtgcccaca cagtgcgacg
 701  tccccccaa cagccgcttc gattgcgccc ctgacaaggc catcacccag gaacagtgcg aggcccgcgg ctgttgctac atccctgcaa agcaggggct
 801  gcagggagcc cagatggggc agccctggtg cttcttccca cccagctacc ccagctacaa gctggagaac ctgagctcct ctgaaatggg ctacacggcc
 901  accctgaccc gtaccacccc cacctcttc cccaaggaca tcctgaccct gcggctggac gtgatgatgg agactgagaa ccgcctccac ttcacgatca
1001  aagatccagc taacaggcgc tacgaggtgc ccttggagac cccgcatgtc cacagccggg caccgtcccc actctacagc gtggagttct ccgaggagcc
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1501  gtgcagcagt acctggacgt tgtgggatac ccgttcatgc cgccatactg gggcctgggc ttccacctgt gccgctgggg ctactcctcc accgctatca
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1701  caaggatggc ttccgggact tcccggccat ggtgcaggag ctgcaccagg gcggccggcg ctacatgatg atcgtggatc ctgccatcag cagctcgggc
1801  cctgccggga gctacaggcc ctacgacgag ggtctgcgga ggggggtttt catcaccaac gagaccggcc agccgctgat tgggaaggta tggcccgggt
1901  ccactgcctt ccccgacttc accaacccca cagccctggc ctggtgggag gacatggtgg ctgagttcca tgaccaggtg cccttcgacg gcatgtggat
2001  tgacatgaac gagccttcca acttcatcag gggctctgag gacggctgcc ccaacaatga gctggagaac ccaccctacg tgcctggggt ggttgggggg
2101  accctccagg cggccaccat ctgtgcctcc agccaccagt ttctctccac acactacaac ctgcacaacc tctacggcct gaccgaagcc atcgcctccc
2201  acagggcgct ggtgaaggct cgggggacac gcccatttgt gatctcccgc tcgacctttg ctggccacgg ccgatacgcc ggccactgga cgggggacgt
2301  gtggagctcc tgggagcagc tcgcctcctc cgtgccagaa atcctgcagt ttaacctgct gggggtgcct ctggtcgggg ccgacgtctg cggcttcctg
2401  ggcaacacct cagaggagct gtgtgtgcgc tggacccagc tgggggcctt ctacccttc atgcggaacc acaacagcct gctcagtctg ccccaggagc
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2701  ctcatcaccc cagtgctcca ggccgggaag gccgaagtga ctggctactt ccccttgggc acatggtacg acctgcagac ggtgccagta gaggcccttg
2801  gcagcctccc acccccacct gcagctcccc gtgagccagc catccacagc gaggggcagt gggtgacgct gccggccccc ctggacacca tcaacgtcca
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3601  gcgctcttcc gcttcctcgc tcactgactc gctgcgctcg gtcgttcggc tgcggcgagc ggtatcagct cactcaaagg cggtaatacg gttatccaca
3701  gaatcagggg ataacgcagg aaagaacatg tgagcaaaag gccagcaaaa ggccaggaac cgtaaaaagg ccgcgttgct ggcgtttttc cataggctcc
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5501  ggggttccgc gcacatttcc ccgaaaagtg ccacctgacg tctaagaaac cattattatc atgacattaa cctataaaaa taggcgtatc acgaggccct
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> RDC2046 Translated Insert Sequence

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 101  eqceargccy ipakqglqga qmgqpwcffp psypsyklen lsssemgyta tltrttptff pkdiltlrld vmmetenrlh ftikdpanrr yevpletphv
 201  hsrapsplys vefseepfgv ivrrqldgrv llnttvaplf fadqflqlst slpsqyitgl aehlsplmls tswtritlwn rdlaptpgan lygshpfyla
 301  ledggsahgv fllnsnamdv vlqpspalsw rstggildvy iflgpepksv vqqyldvvgy pfmppywglg fhlcrwgyss taitrqvven mtrahfpldv
 401  qwndldymds rrdftfnkdg frdfpamvqe lhqggrrymm ivdpaisssg pagsyrpyde glrrgvfitn etgqpligkv wpgstafpdf tnptalawwe
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 601  stfaghgrya ghwtgdvwss weqlassvpe ilqfnllgvp lvgadvcgfl gntseelcvr wtqlgafypf mrnhnsllsl pqepysfsep aqqamrkalt
 701  lryallphly tlfhqahvag etvarplfle fpkdsstwtv dhqllwgeal litpvlqagk aevtgyfplg twydlqtvpv ealgslpppp aaprepaihs
 801  egqwvtlpap ldtinvhlra gyiiplqgpg ltttesrqqp malavaltkg geargelfwd dgeslevler gaytqvifla rnntivnelv rvtsegaglq
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