

Specifications:

Gene:	cynoIDUA
Accession:	XP_005554313.1
Insert size:	1975bp
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

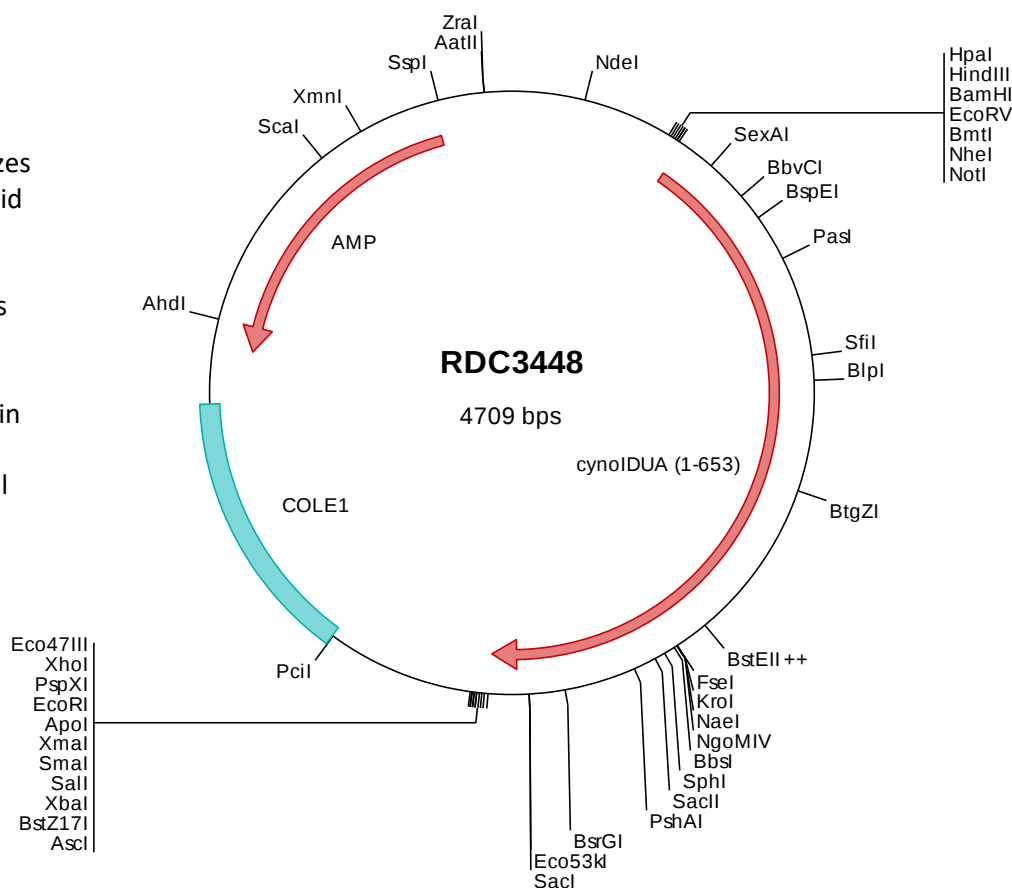
Formulation	cDNA is provided in 10 mM Tris-Cl, pH 8.5
Shipping	Ships at ambient temperature
Stability	1 year from date of receipt when stored at -20°C to -80°C
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

cynoIDUA cDNA Plasmid

IDUA alpha-L-iduronidase
[*Macaca fascicularis* (crab-eating macaque)]

Summary:

IDUA is an enzyme that hydrolyzes the terminal alpha-L-iduronic acid residues of two glycosaminoglycans, dermatan sulfate and heparan sulfate. This hydrolysis is required for the lysosomal degradation of these glycosaminoglycans. Mutations in IDUA that result in enzymatic deficiency lead to the autosomal recessive disease mucopolysaccharidosis type I (MPS I).



FOR RESEARCH USE ONLY

NOT FOR USE IN HUMANS

> RDC3448 Plasmid DNA Sequence

```

1  tcgcgcgctt  cggatgatgac  ggtgaaaacc  tctgacacat  gcagctcccc  gagacgggtc  cagcttgctc  gtaagcggat  gccgggagca  gacaagcccc
101  tcaggggcgc  tcagcgggtg  ttggcgggtg  tcggggctgg  ctttaactatg  cggcatcaga  gcagattgta  ctgagagtgc  accatatgcg  gtgtgaaata
201  ccgcacacat  gcgtaaggag  aaaataccgc  atcaggcgcc  attcgccatt  caggctgcgc  aactgttggg  aagggcgatc  ggtgcgggcc  tcttcgctat
301  tacgccagct  ggcgaaagg  ggaatgtctg  caaggcgatt  aagttgggta  acgccagggt  tttcccgatc  acgacgttgt  aaaacgacgg  ccagtgat
401  ggagacgtgt  taacaagctt  ggatccgata  tcgctagcgc  ggccggccacc  atgcgcccac  tgcgcccccg  cgcaacgctg  ctgcgggtcc  tggcctcgct
501  cctggcgcgt  cccccggtgg  tcccgcccca  ggccccgcac  ctggtgcagg  tggacgcggc  acgcaacgctg  tggccccctgc  ggcgctctctg  gaggagcaca
601  ggctttctgc  ccccgctgcc  acacagccag  gctgaccagt  acgtccctcag  ctgggaccag  caactcaacc  tcgcctatgt  gggcgccgctc  cctcaccgtg
701  gcctcagcga  ggtagcgacc  caattgctgc  tggagcttgt  caccaccagg  ggtgtccactg  gacggggccc  aagctacaac  ttcacccacc  tggatgggta
801  cctggacctt  ctaagggaga  accagctcct  cccagggttt  gagctgatgg  gcagcgcttc  gggccacttc  accgactttg  aggacaagca  gcaggtgttt
901  gagtgggaag  acttggtctc  cagcctggcc  aggagataca  tcggttagta  cggactggcg  catgtttcca  aatggaactt  cgagacgtgg  aacgagccgg
1001  accacacaga  ctttgacaac  gctcccatga  ccatgcaagg  cttcctgaac  tactacgatg  cctgctcgga  gggctctcgc  gctgcccagc  cgccctcgcg
1101  gctgggaggg  cctggcgact  ccttccacac  cccacccgga  tcccgcgtga  gctggggcct  cctgcccacc  tgccacgacg  gtaccaactt  cttacccggg
1201  gaggtggggc  tgcggctgga  ctacatctcc  ctccacagga  aggggtgcgg  cagctccact  tccatcctgg  agcaggagaa  ggcctgcggc  cagcagatcc
1301  accgacgtgt  ccccaagttt  gcgcgacccc  ccatttaca  cgacgagggc  gacccgctgg  tgggtgggtc  cctgcccagc  cctggagggg  ctgacgtgac
1401  ctatgcggcc  atggtgtgtg  aggtcatcgc  ccagcatcag  aacctgtcac  tggcccaacc  cagctccacc  atcccctatg  cgtcctctag  caacgacac
1501  gccttctcga  gctaacaccc  gcaacccttc  gcgcagcgca  cgctcactgc  gcgtttccag  gtcaacaaca  cccgcccgcc  gcaactgcag  ctggtgcgca
1601  agccgggtgt  cacagccatg  ggcgtgctgg  cgtcgttggg  cgaggagcag  cctctggggc  aggtgtctcg  ggccgggagc  gtccctggaca  gcaaccacac
1701  ggtggggctc  ctggccagcg  cccacccgcc  ccaggggcca  gcgatgcct  ggctgtcgcc  tgtgtgatgc  taocgcagcg  acgacacccc  cgccccccc
1801  aaccgcagcg  tcgcggtgac  gctgcggctg  cgccgggtga  ccccgggccc  aggcctggtc  taactcagc  gctacctgga  caaccggctc  tcgagccccg
1901  accgcgagtg  gcgcgagctg  gtcgcgctg  tcttccctgc  tgcgcgcgcc  ttccggcgca  tgcgcgcgcc  cgaggaccgc  gtcggcgccg  cgcccgctgc
2001  cttcccccgc  agtggcgccc  tgacctgctg  ccccgcgctg  cgactgcctg  cgttctctgt  ggtgcatgtg  tgccgcggcc  ctgagaagcc  gcccgccagc
2101  gtaacgggca  tccgtgcccc  gcccttgacc  caaggcgagc  tggttcttgt  ctggtcgga  gaacacgtgg  gctccaagtg  cctgtggaca  tacagatccc
2201  agttctctca  ggtatggtaa  ggtgtacacc  cgtgtacacc  gaagccatcg  accctcaatc  tctttgtgtt  cagcccagac  acaggtactg  tctccggctc
2301  ctaccgagtt  cagagctctg  actactgggc  ccgaccaggc  ccccttctca  accctgtgcc  atactctggg  gtccctgtgc  caagaggggc  accagcccc
2401  ggaaatccat  aaaggcgccg  cagtatactc  tagagtgcac  acccggggaa  tccctcgagc  gctcgtctct  agcttggcgt  aatcatggtc  atagctgttt
2501  cctgtgtgaa  attgttatcc  gctcaccaat  ccacacacaa  tacgagccgg  aagcataaag  tgtaaagcct  ggggtgccta  atgagttagc  taactacat
2601  taattgcgtt  gcgctcactc  cccgctttcc  agtcgggaaa  cctgtcgtgc  cagctgcatt  aatgaatcgg  ccaacgcgcg  gggagaggcg  gtttgcgtat
2701  tggcgctctt  tccgcttctc  cgtcactga  ctgcgtcgcc  tcggtctgtc  ggctgcggcg  agcggtatca  gctcactcaa  agcgggtaat  acggttatcc
2801  acagaatcag  gggataacgc  aggaagaagc  atgtgagcga  aaggccagcg  aaaggccagg  aaccgtaaaa  aggcgcgctt  gctggcgctt  ttccatagcg
2901  tccgcccccc  tgacgagcat  cacaaaaatc  gacgctcaag  tcagaggtgg  cgaaccgcga  caggactata  aagataccag  gctgttcccc  ctgggaagtc
3001  cctcgtgcgc  tctcctgttc  cgacctgccc  gcttacccga  tactctcgcc  cctttctccc  ttccgggaagc  gtggcgcttt  ctaactgctc  acgtcttagg
3101  tatctcagtt  cgggttaggt  cgttcgctcc  aagctgggct  ggtgtgcagc  accccccgct  cagccccgac  gctgcgctt  atccggtaac  tatcgtcttg
3201  agtccaaccc  ggtaagacac  gacttatcgc  cactggcagc  agcacttgtt  aacaggatta  gcagagcgag  gtatgtaggc  ggtgctacag  agttcttgaa
3301  gtgtgtggct  aactacgctc  acactagaag  gacagtattt  ggtatctgcg  cctctgtgaa  gccagttaac  ttcggaaaaa  gatgtgtag  cctctgatcc
3401  ggcaaacaaa  ccaccgctgg  tagcgggtgt  ttttttgtt  gcaagcagca  gattacgcgc  agaaaaaag  gatctcaaga  agatcctttg  atctttttta
3501  cggggtctga  cgctcagtg  aacgaaaaat  cactgttaag  gattttgtgc  atgagattat  caaaaaggat  cttcacctag  atccttttaa  attaaaaatg
3601  aagttttaaa  tcaattctaa  gtatatatga  gtaaaacttg  tctgacagtt  accaatgctt  aatcagtgag  gcacctatct  cagcgatctg  tctatttcgt
3701  tcatccatag  ttgcctgact  ccccgctcgt  tagataacta  cgatacggga  gggcttacca  tctggcccc  gtgctgcaat  gatacccgca  gacccacgct
3801  caccggctcc  agatttatca  gcaataaacc  agccagccgg  aaggggccag  cgcagaagtg  gtccctgcaac  tttatccgcc  tccatccagt  ctattaattg
3901  ttgccgggaa  gctagagtaa  gtagttcgcc  agttaatagt  ttgcgcaacg  ttgttgccat  tgctacagcg  atcgtggtgt  cagctcgtc  gtttggtagt
4001  gcttcattca  gctccggttc  ccaacgatca  aggcgagtta  catgatcccc  catgttgtgc  aaaaaagcgg  ttagctcctt  cggtcctccg  atcgttgtca
4101  gaagttaagt  ggccgcagtg  ttatcactca  tggttatggc  agcactgcct  aattctctta  ctgctcatgc  atccgtaaga  tgctttctg  tgactgggta
4201  gtaactcaac  aagtoattct  gagaatagtg  tatcgggcga  ccgagttgct  cttgcccggc  gtcaataacg  gataataccg  cgccacatag  cagaacttta
4301  aaagtgtcga  tcattggaaa  acgtttcttc  gggcgaaaac  tctcaaggat  cttaccgctg  ttgagatcca  gttcgatgta  acccactcgt  gacccaact
4401  gatcttcagc  atcttttact  ttcaccagcg  tttctgggtg  agcaaaaaca  ggaaggcaaa  atgccgcaaa  aaagggaata  agggcgacac  ggaatgttg
4501  aatactcata  ctcttctctt  ttcaatatta  ttgaagcatt  tatcaggggt  attgtctcat  gagcgggatac  atatttgaat  gtatttagaa  aaataaaca
4601  atagggggtc  cgcgacatt  tccccgaaa  gtgccacctg  acgtctaaga  aaccattatt  atcatgacat  taacctataa  aaataggcgt  atcacgagcg
4701  cctttcgtc

```

> RDC3448 Translated Insert Sequence

```

1  mrplrprat1  lavlasllaa  ppvpvaeaph  lvqvdaart1  wplrfrwst  gfcpplphsq  adqyvlswdq  qlnlavvgav  phrgieqvrt  hwlllelvtr
101  gstgrgpsyn  fthldgyld1  lrenqllpgf  elmgsasghf  tdfedkqvfv  ewkd1vssla  rryigrygla  hvskwnfetw  nepdhdfdn  vsmtmqgfln
201  yydacseglr  aaspalrlgg  pgdsfhtppr  splswgllrh  chdgtntfftg  evgvrlidyis  lhrkgarssi  sileqekava  qqirqlfpkf  adtpiyndea
301  dplvgwslpq  pwradvtyaa  mvkviahqhq  nlllantsst  ipyallsndn  aflsyhphpf  aqrtltafqr  vnntrpphvq  lvrkpvltam  gllalldceq
401  lwaevsragt  vldsnhtvgv  lasahrpegp  adawraavli  yasddtrahp  nrsravtlrl  rgvtppgplv  yvtryldnrl  cspdgewrrl  grpvfpvaeq
501  frmrmaaedp  vaaaprpfpa  sgrltlrpal  rlpslllvhv  carpekkppg  vtrlrplpt  ggqlvlvwsd  ehvgscklwt  yeiqfsdqdg  vytpvskrps
601  tfnlvfvsdp  tgtvsgsyrv  raldywarpg  pfsnpvpyle  vvpvrgppap  gnp

```