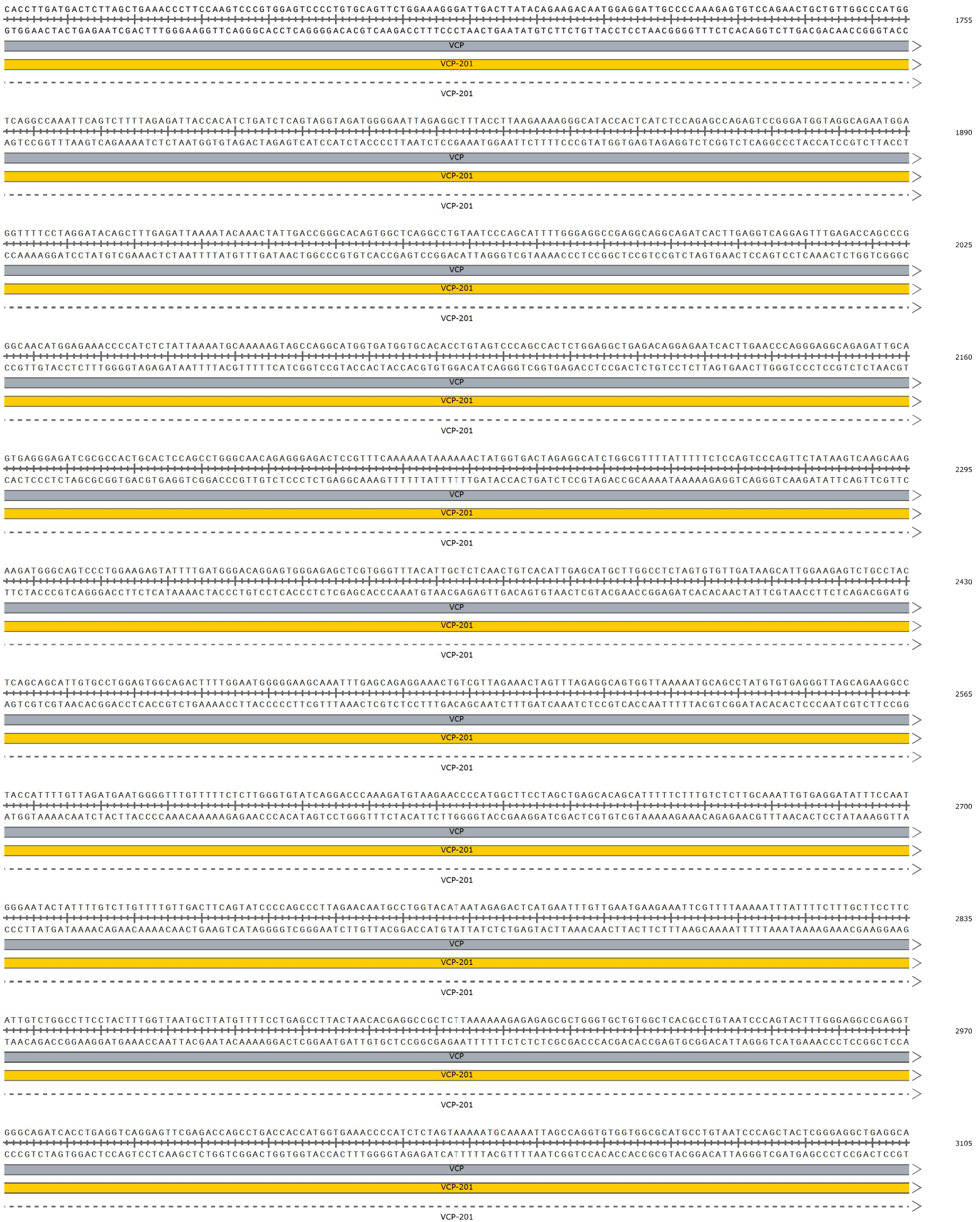


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3645

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3780

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4455

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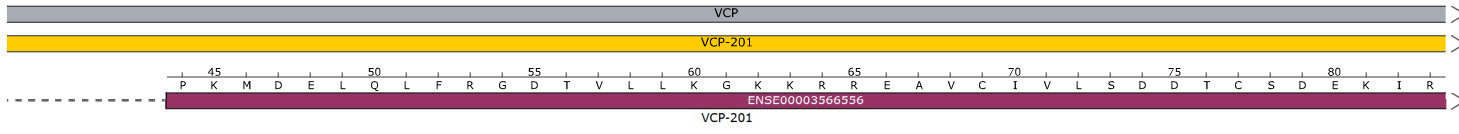
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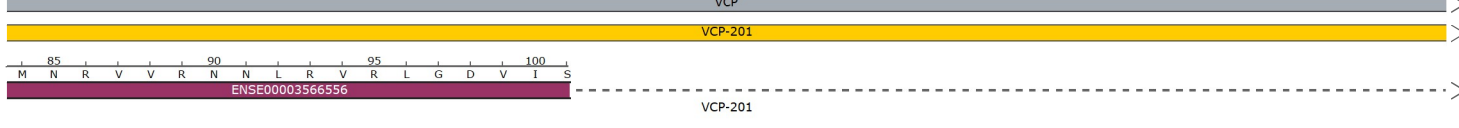
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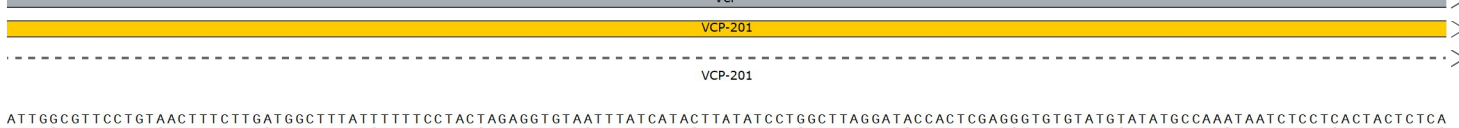
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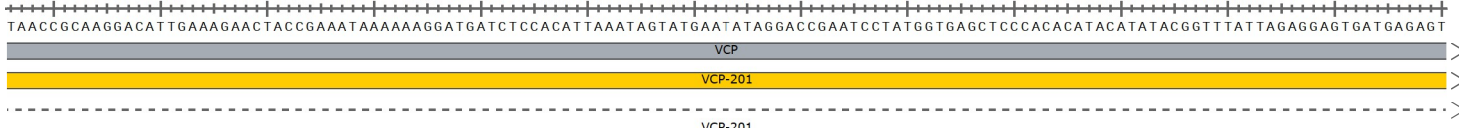


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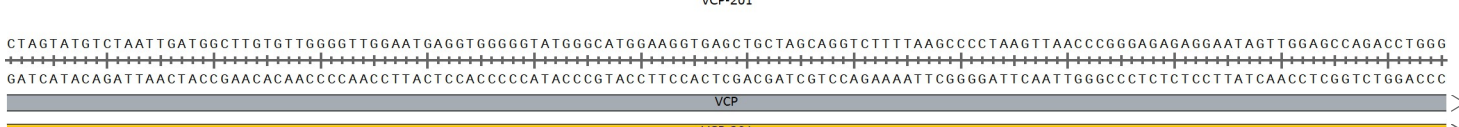
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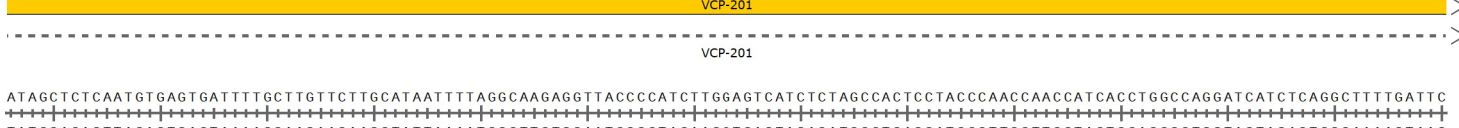
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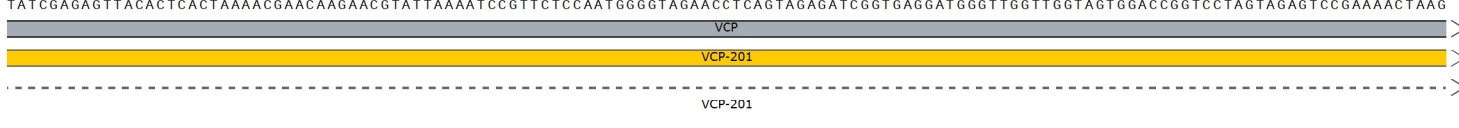
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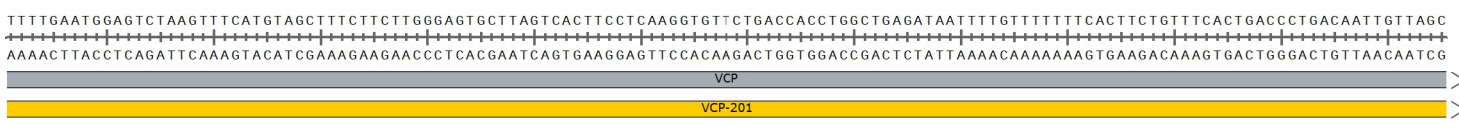
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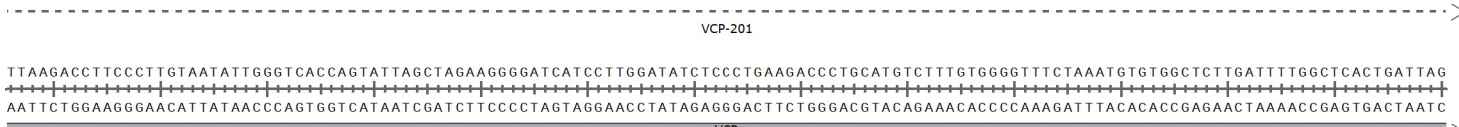
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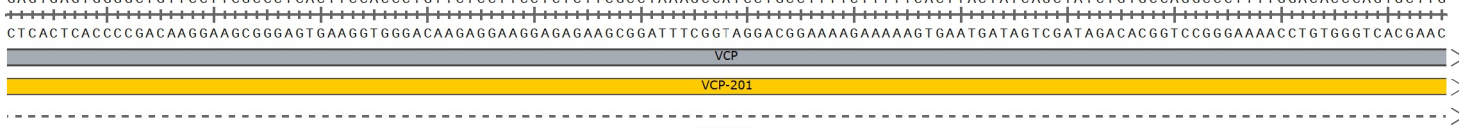
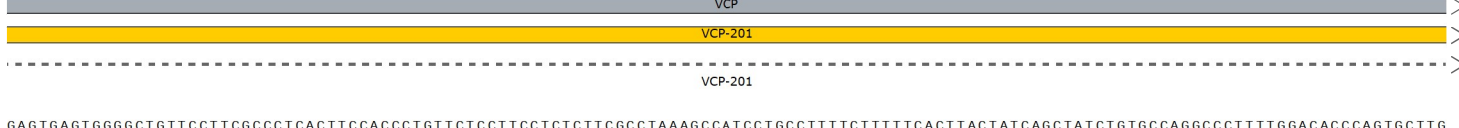
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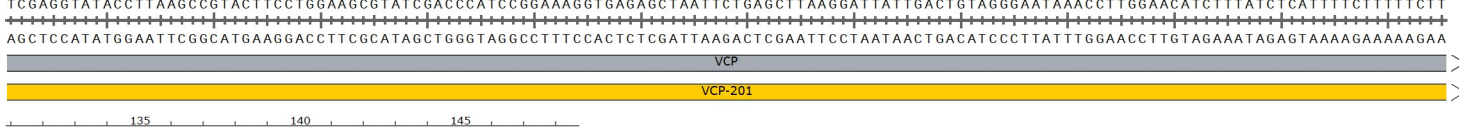
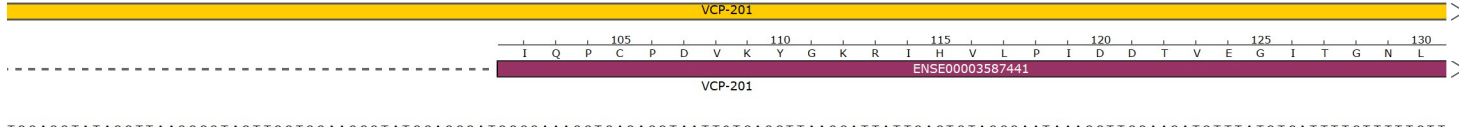
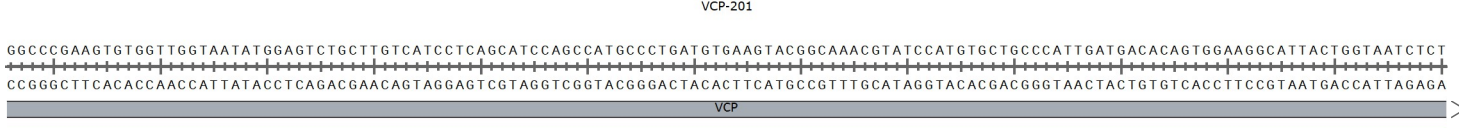
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8640

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235  
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9045

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9180

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9450

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9585

VCP

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9720

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9855

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C C C T T C C T T C A T T A G A C T C T A A C T T A G G T C C T T A C C C T C A A C C G T A A A A A G T A T A A C T G C G A C G T A A A T C T A T T T A G T C T T A A C A A C C T C G T C G G A A T A A A G A T C C A G G G T T C A G G T C T T A A T T C A T G A A T

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VCP-201

VCP-201

A A C C C A G C C C A T A A A G G T A T T G A T A G T A T A T A T T C A A G G A A A T G A G A G A C C C A G G G A T A G C A G T C A G G G A A G G A T T C T A T T G T C T G A G C C T C C T G C A G A C T G G G T C T T T G A G G C A G C A T A G T A A G T A G  
T T T G G G T C G G G A T T T C C A T A A C T A T C A T A T A A G T T C C T T A C T C T C T G G G T C C C A T C G T C A G T C C C C T T C C T A A G A T A A C A G A G A C T C G G A G G A C G T C G T C G A C C C A G A A A C C C G T C G T A T C A T T C A T C

11,475

VCP

VCP-201

VCP-201

ATCTTTCTCTGCAGGTAGCCAAATGAGACTCACGGGCATGTGGGTGCTGACTTAGCAGCCCTGTGCTCAGAGGCTGCTCTGCAAGCCATCCGCAAGAAGATGGATCTCATTTGACCTAGAGGATGAGACCCATTGATG  
TAGAAAAGAGACGTCCATCGGTTACTCTGAGTGCCCGTACACCCACGACTGAATCGTCGGGACACAGAGTCTCCGACGAGACGTTTCGGTAGGCGTCTTCTACCTAGAGTAACCTGGATCTCCTACTCTGGTAACTAC

11,610

VCP

VCP-201

V A N E T H G H V G A D L A A L C S E A A L Q A I R K M D L I D L E D E T I D

ENSE00003669115

VCP-201

CCGAGGTCATGAACTCTCTAGCAGTTACTATGGATGACTTCCGGGTAAAGACCACACCCGTCGCTCAGGTACACACATACGTTGCTTTGACCCCTCCCTTGATAAGTCTCATCCCCAGTTTTCCCTCCTTTTCTAG  
GGCTCCAGTACTTGAGAGATCGTCAATGATACCTACTGAAGGCCATTCTGGTGTGGGCACGGAGTCCATGTGTGTATGCACGAACTGGGGAGGGAACATTCAGAGTAGGGGTCAAAGGGAGGAAAAGATC

11,745

VCP

VCP-201

A E V M N S L A V T M D D F R

ENSE00003669115

VCP-201

TGGGCTTGGACCCAGAGTAACCCATCAGCACTGCGGGAAACCGTGGTAGAGGTGCCACAGGTAACCTGGGAAGACATCGGGGCCCTAGAGGATGTCAAACGTGAGCTACAGGAGCTGGTCCAGGTAGGGCAACTT  
ACCCGGAACTCGGTCTCATTGGGTAGTCGTGACGCCCTTTGGCACCATCTCCACGGTGTCCATTGACCCCTCTGTAGCCCGGATCTCTACAGTTTCACTCGATGTCCTCGACCAGGTCCATCCCGTTGAA

11,880

VCP

VCP-201

W A L S Q S N P S A L R E T V V E V P Q V T W E D I G G L E D V K R E L Q E L V Q

ENSE00003597683

VCP-201

GGTCCAGGGTGAAGTCACTGCTCAGTACATTGTAATTGATCTGGGTGATCTCAGGGTGTCAACACATTTGCTGCAAGAGTTGTGAGAGCAGACTTAGGAACCTACTGTTCTTAGGTTTGAGGCACTAAGGAGTC  
CCAGGTCCTCAGTGACAGAGTCATGTAACATTAAGTACAGCCACTAGAGTCCACAGTTGTGTAACGACGTTCTCAACACTCTCGTCTGAACTCTGGATGACAAGAATCAAACCTCCGTGATTCCTCAG

12,015

VCP

VCP-201

TTCTCTAGAGAACCCTGATCTGATACCATTGGGTACACCATGAAATAATGGAGGGGATGCTTCTGTTTAGTTAGGTTTCTTTCAAATGTGGAAGTGAAGCTTGAACCCCTTTCTTTCTCTCTAGTATCTCG  
AAGAAGATCTTTGACCTAGACTATGGTAACCCATGTTGTTACTTTATTACCTCCCTACGAAGACAATCAATCAAAGAAAGTTTACACCTCCTCGGAAGTTGGGAGAAAAGAAAAGGAGGATCATAGGAC

12,150

VCP

VCP-201

-495  
Y P

ENSE000...

VCP-201

TGGAGCACCCAGACAAATTCCTGAAGTTTGGCATGACACCTTCAAAGGGAGTTCTGTTCTATGGACCTCTGGCTGTGGGAAAACCTTTGTTGGCAAAGCCATTGCTAATGAATGCCAGGCCAACTTCATCTCCA  
ACCTCGTGGGTCTGTTTAAAGACTTCAAACCGTACTGTGGAAAGTTCCCTCAAGACAAGATACCTGGAGGACCGACACCCCTTTTGAACAACCGGTTTCGGTAACGATTACTTACGGTCCGGTTGAAGTAGAGGT

12,285

VCP

VCP-201

V E H P D K F L K F G M T P S K G V L F Y G P P G C G K T L L A K A I A N E C Q A N F I S

ENSE00003550122

VCP-201

TCAAGGTCCTGAGCTGCTCACCATGTGGTTTGGGGAGTCTGAGGCCAATGTCAGAGAAATCTTTGACAAGGTGAGCTACAATAGGCTGAACTATGTATTGATTTGCTGAGGGCAAGGAATAGAGGCTGTTTTT  
AGTTCCAGGACTCGACGAGTGGTACACCAAACCCCTCAGACTCCGGTTACAGTCTCTTTAGAACTGTTCCACTCGATGTTATCCGACTTGATACATAACTAAACGGACTCCGTTCTTTATCTCCGACAAAAA

12,420

VCP

VCP-201

I K G P E L L T M W F G E S E A N V R E I F D K

ENSE00003550122

VCP-201

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GAAATTCCTCAAACCTTTATAAGAAATCACGACCGACGAGTTGACGTGTCACTCAGTGAACATAAAGAAAGACTCCAGACTCTCTGGATCACAATAAAAAAAGAGAGAGAGAGAACTCTGTCCAGACCGAG

12,555

VCP

VCP-201

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12,690

VCP

VCP-201

VCP-201

TTATTTTTGTAGAGACAAAGTCTCAGTATGTTGCCATGCTGTTTCGGATTTCTGGCTCAAGTGTATCTCCACCTTGGCTCCCAAAGTCTGGGAATACAGGTTGAGGCCACCACGTTTGCCTAGAGACA  
AATAAAAAACATCTCTGTTTACAGATCATACAACGGGTACGACCAAAGCCTAAAGACCGGAGTTCACATAGGAGGTTGAACCGGAGGTTTCACGACCCCTTATGTCCACACTCGGTGGTGCACCAAGGATCTCTGT

12,825

VCP

VCP-201

VCP-201

TCTAGTTTTGGTTAGTGCCTTGAATCAATCCATTCCCTCTACAGGCCCGCCCAAGCTGCCCCCTGCTCTTTGATGAGCTGGATTTCGATTGCCAAGGCTCGTGGAGGTAACATTGGAGATGGTGGTGGGCT  
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12,960

VCP

VCP-201

A R Q A A P C V L F D E L D S I A K A R G G N I G D G G A 570 575 580 585 590 595

VCP-201

ENSE00003633833

GCTGACCGAGTCAACCCAGATCCTGACAGAAATGGATGGCATGTCCACAAAAAAATGTTTCATCATTGGCGCTACCAACCGGCTGACATCATTGATCCTGCCATCCTCAGACCTGGCCGTCTTGATCAG  
CGACTGGCTCAGTAGTTGGTCTAGGACTGCTTTACCTACCGTACAGGTGTTTTTTTTTACACAAGTAGTAACCGCGATGGTTGGCCGGACTGTAGTAACCTAGGACGGTAGGAGTCTGGACCGGAGAACTAGTC

13,095

VCP

VCP-201

A D R V I N Q I L T E M D G M S T K K N V F I I G A T N R P D I I D P A I L R P G R L D Q 600 605 610 615 620 625 630 635 640

VCP-201

ENSE00003633833

CTCATCTACATCCCACTTCTGATGAGAAGTCCCGTGTGCCATCCTCAAGGCTAACCTGCGCAAGTCCCAAGTGTGCCAAGGCGAGTGAAGATCATGGGCTGTGGGAGACTTGCATGAGTCTCAGGCTGGTAC  
GAGTAGATGATAGGGTGAAGGACTACTCTTCAAGGCACAACGGTAGGAGTTCGATTGGACGCGTTCAAGGGTCAACGGTTCCTGTCACGTTCTAGTACCCGACACCCTCGAACGTACTCAGGAGTCCGACCATG

13,230

VCP

VCP-201

L I Y I P L P D E K S R V A I L K A N L R K S P V A K 645 650 655 660 665

VCP-201

ENSE00003633833

GGAGTCTCTTTAGTTTCTGGACAAGATTCCACTGGGGTTAGGGTTGGTCTAAAGGAAGTAGAATTTTTGAGGATATCAAGATAATCTAGAATCAGGAATAAAATGGGGTGGCCAAAGAAGGGGCAAACCTGTA  
CCTCACGAGAAATCAAAGACCTGTTCTAAGGTGACCCCAATCCCAACAGATTTCCCTTCCATCTTAAAACTCCTATAGTTCTATTAGATCTTAGTCTTATTTTACCCACCGGTTTCTCCCGGTTTGACAT

13,365

VCP

VCP-201

GTTGGGAGTGTCTCGGGTAGCCCAAAGATCTGCGTATCTCGAGAGGAGAGGCTAAATGCTAAGGTACCTCTGCTGCTGCTTTTAGGATGTGGACTTGGAGTTCCTGGCTAAAAAGACTAATGGCTTCTCTGGAGCT  
CAACCTCACGAGCCCATCGGGTTTCTAGACGCATAGAGCTCTCTCTCCGATTACGATTCCATGGAGACGACGACGAAATCCTACACCTGAACCTCAAGGACCGATTTTACTGATTACCGAAGAGACCTCGA

13,500

VCP

VCP-201

D V D L E F L A K M T N G F S G A 670 675 680 685

VCP-201

ENSE00003632965

GACCTGACAGAGATTTGCCAGCGTCTTGAAGCTGGCCATCCGTGAATCCATCGAGAGTGAGATTAGCCGAGAACGAGAGAGGCGAGACAAACCCATCAGCCATGGTGAATCTGCATCCTTTCCCAAGATGTGCC  
CTGGACTGCTCTAAACGGTCCGACGAACGTTCCGACCGTAGGCACTTAGGTAGCTCTCACTCTAATCCGCTCTTGTCTCTCCGCTGTTTGGGTAGTCCGGTACCACCTCAGACGTAGGAAAGGGGCTACACGG

13,635

VCP

VCP-201

D L T E I C Q R A C K L A I R E S I E S E I R R E R E R Q T N P S A M 690 695 700 705 710 715 720

VCP-201

ENSE00003632965

AATCATGGAGACCCAGGCAGCAGCCACCACCATGCCCTGGAGTTGAGAGTAGAAGCTGTTGAAAGATCATCTAACTGAGAAGATTTAATAGGGCATCAAAGATAAAGAAATGCTGAGGTGAATCCATTCAATT  
TTAGTACCTCTCGGTCGGTCCGTCGGTGGTGGTACGGGACCTCAACTCTCATCTCGACAACCTTTCTAGTAGATTGACTCTTCTTAAATTTATCCCGTAGTTTCTATTTCTTACGACTCCACTTAGGTAAGTTAA

13,770

VCP

VCP-201

VCP-201

TGGAATAAGGCCGAGAAGAGATGGTCAGGCTCCATTCTCAGTCTGAACCAAGCTCCATGAGGGAATCAAAGTATGAGAGTGCAGCAAACACAGCAAGTTTTTTTTGTTTTTTGTTTTTTGTTTTTTTTGAG  
ACCTTATCCGGCTCTTCTACCAGTCCGAGGTAAAGAGTCAAGTCTGACTTGGTTCCGAGGTAAGTCCCTTTAGTTTCACTACTCTCAGCTGTTTGTGCTGTTCCAAAAAACAACAAAAAACAACAAAAAACAAC

13,905

VCP

VCP-201

VCP-201

ACGAAGTCTCACTCTGTTGCCAGACTGGAGTGCAGTGGCACGATCTTGGCTCACTGCAACTCTGCTCCAGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGACTACAGGCACATGCCACCA  
TGCTTACAGGTGAGACAACGGGCTGACCTCACGTACCCTGCTAGAACCAGAGTGACGTTGAAGACGGAGGGTCCAAGTTCCGTAAGAGGACGGAGTCCGAGGGCTCATCGACCTGATGTCGGTGTACGGTGGT

14,040

VCP

VCP-201

VCP-201

TGTCGGGCTAGTTTTTTGATTTTTTTTTAGTAGAAACGTGGTTTTACCACGTTAGCCAGGATGGTCTCGATCTCCTGACCTTGTGATGTGCCACCTCGGCTCCCAAAGTCTGGGATTACAGGCGTGAACC  
ACAGGCCGATCAAAAAACATAAAAAAAATCATCTTTGCACCAAAGTGGTGAATCGGTCCTACCAGAGCTAGAGGACTGGAACACTACACGGGTGGAGCCGGAGGGTTTTACGACCTAATGTCGCACCTTGG

14,175

VCP

VCP-201

VCP-201

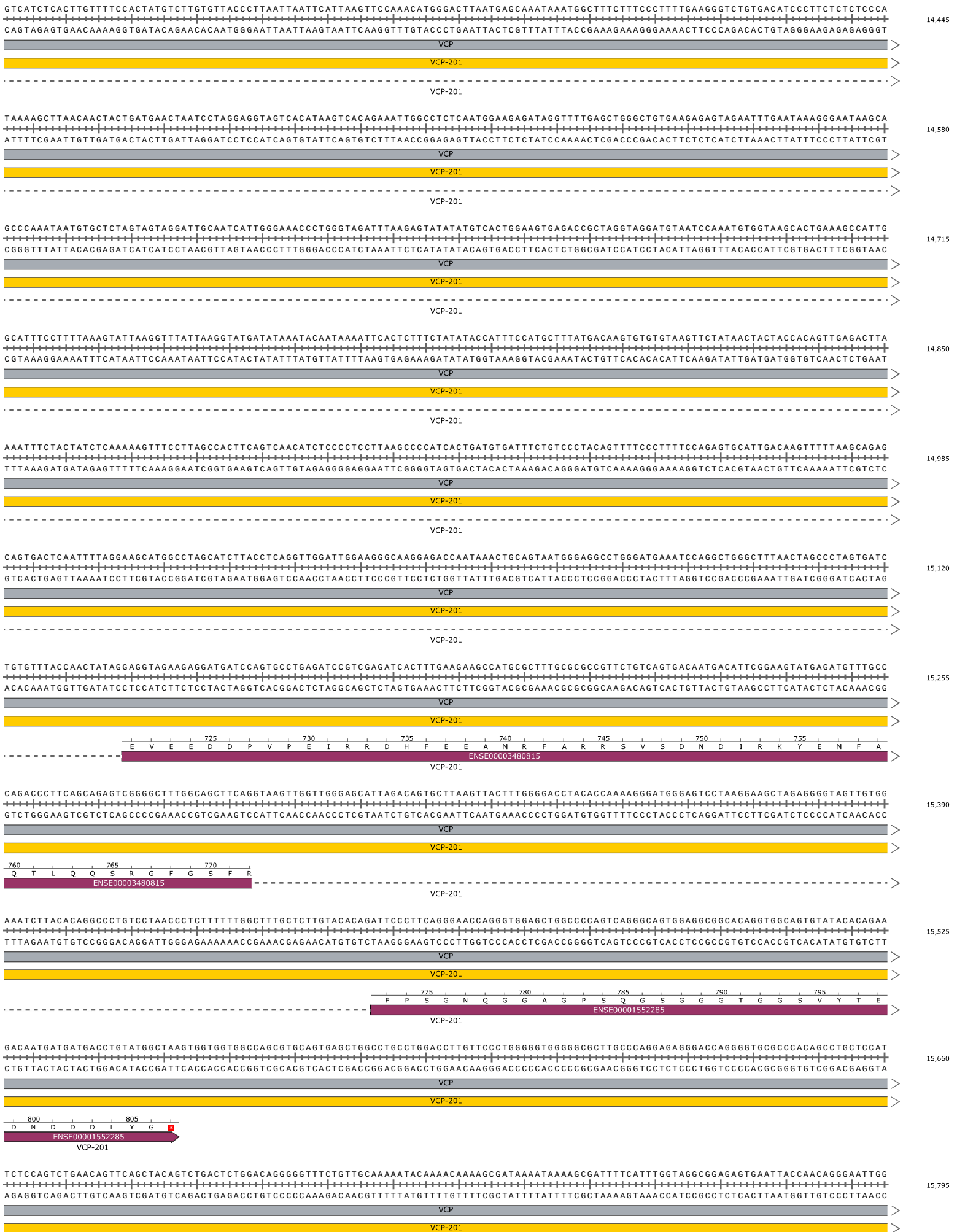
ACAGAGCAAGGTTTTGAGCTGAGATGAGACTCATATACTTATCCCTGATGGTTGGGGAAGGGATAGGGTCCACAGACCTCCCAAATGAAAAGGCAAATTCATGTGTTTGAAGTTCCATAAAGGTAAGATCTCT  
TGCTCGTTCCAAAACCTGACTTACTCTGAGTATATGAATAGGACTACCAACCCCTTCCCTATCCAGGTGCTGGAGGGTTTTACTTTCCGTTTAAGTACACAAACATTCAGGTATTTCCATTCTAGAGA

14,310

VCP

VCP-201

VCP-201



GCCTTGGGCCATGCCATTTCTGTTGTAGTTTGGGGCAGTGCAGGGGACCTGTGTGGGGTGTGAACCAAGGCACTACTGCCACCTGCCACAGTAAAGCATCTGCACCTTGACTCAATGCCTCCGAGCCCTCCCTCGGAACCCGGATACGGTAAAGACAACATCAAACCCCGTACGTCCCTGGACACACCCCACTTGGTTCGGTATGACGGTGGACGGTGCATTTCTGAGACGTGAACAGTACGTTACGACGGGCTCGGGAGGGAA 15,930

VCP

VCP-201

CCCCCTATCCAACCTGGGTAGGTGGGTAGGGGCCACAGTTGCTGGATGTTTATATAGAGAGTAGGTTGATTATTTTACATGCTTTTGAGTTAAATGTTGGAAAACCTAATCACAAGCAGTTTCTAAACCAAAAAATGGGGGATAGGTTGGACCATCCACCCATCCCGGTGTCAACGACCTACAAAATATATCTCTCATCCAATAAATAAATGTACGAAAACCTCAATTACAACCTTTTGATTAGTGTTCGCAAGATTGGTTTTTA 16,065

VCP

VCP-201

GACATGTTGTAAAAGGACAATAAACGTTGGGTCAAAATGGAGCCTGAGTCTGGGCCCTGTGCCTGCTCTTTTCTGGGAACAGCCTTGGGCTACCCACCACTCCAAGGCATTCTTCCAAATGTGAATCCTGCTGTACAACATTTCTGTTATTTGCAACCCAGTTTACCTCGGACTCAGGACCCGGGACACGGACGAAGAAAAGGACCCCTGTGCGAACCCGATGGGTGGTGAAGGTTCCGTAAGAAGGTTTACACTTTAGGGAC 16,200

VCP

VCP-201

GAAGTAAGATTGCACCTTCTTCTCTCTGATCAACATCGGTATGATGTCCTGTGGCCTCACCCTTTGCTGCAAGTACTGATGGATAGGACTGGTGGAAAAGGAGCAGCCTGACAGAGCTCCAAATGTGGAGA CTTCACTTCAACGTGGAAGAAGGAGAGGACTAGTTGTAGCCATACTACAGAGGACAACGGAGTGGAAAACAGACGTCATAGTGACCTATCTGACCACCTTTCCCTGCTGGACTGCTCGAGGTTTACACCTCT 16,335

VCP

VCP-201

ATATGGCATCCCTCCACCTATATTTGATGTGGACGGTAAGGCTAGGCCCTGCAAGATCCCTTATCCTGACCAAGACTGTGTTGGGGTGCCATTTGAAAATCGCAGGGTTGCAAAAAGAATAACAATCTTACTTGCAG TATACCGTAGGGAGGTGGATATAAACTACACCTGCCATTCGATCCGGACGTCCTAGGGAATAGGACTGGTTTCTGACACAACCCCACTGTAACCTTTTAGCGTCCCAACGTTTTCTTATGTTAGAATGAACGTC 16,470

VCP

VCP-201

GTGGATATCTCTATACTCTCTTTAATGCATCTAAAAATCCCAAACATCCCTGGTGGTGGTACTTACAGTTGGTGCACCTTTATTTTATGTACTTTGATTAATAAAAAAATCTTTTGTAAATATAAAA CACCTATAAGAGATATGAGAGAAAAATACGTAGATTTTAGGGTTTGTAGGGGACCAACCACTAGTGAATGTCAACACAGGTGGAAAATAAATACATGAAACTAATTTTTTTTTTGGAAAACAATATATTTT 16,605

VCP

VCP-201

TTTTAGTATTGAATTTTTTTTTTTTCCAAACAGAAAAAGACTATCCTCTCAACAGTAATCACTTAGTGCTTCTAGGGTCAGTACAGTGATGCCCTACCCAGAGAGAGAGTAGTGACAGAAAAATAAATACTA AAAATCAAACTTAAAAAAGAGGTTGCTTTTATCTGATAGGAGAAGTTGCTATTAGTGAATCAGCAAGATCCCACTGTCACGTACGAAATGGGTCCTCTCTCATACGTCCTTTTATTTAATGAT 16,740

VCP

VCP-201

AATTAATATATGTTGATTGGCTTTGGGACATAATCTCAAAGACAGTCTGAAACCCGTAATTTGAATAAAATCTGTAATCTCAAAGATCAAAATCCCTAAAGCTAAAATCTGAAAATCACAATCCCAA TTAATTTATATACAACTAACCGAAACCTGTATTAGAGTTTTCTGTGAGGACTTGGCATTAAAACCTATTTTATGACATTAGAGGTTTCTAGTTTTAGGGATTTAGAGTTTTAAGACTTTTAGTGTAGGGTT 16,875

VCP

VCP-201

AAGGTCAAAATCCAAAATACAATTTCTGGAAGAATACTAAACATTTCTCGAAAATTTACTTACATTTTTAAAGCGTATTTATTTGAGAAAACAACAACAGAACGTTTTCATAGGCCACTACACGATAAAATAG TTCCAGTTTTAGGGTTTTATGTTAAGACCTCTTTATGATTGTAAGAAGCTTTTAAATGAATGAAAAATTTTCGCATAAATAAATCTTTGTTGTGTTGCTTGCAAGATACCGGTGATGCTATTTTATC 17,010

VCP

VCP-201

GGAAATAGTAACATTTTTGCAAGATAAACACTCAGGTATACCAATGACAGTTGCACGGATATAACGGTGATGAGCAGATGAAACATTCATAAAGAAATAGGTCAAAAAGTAAAATGATAAATGCTTTGCACTAT CCTTATCATTTGAAAAACGTTCTATTTGAGTCCATATGGTTACTGTCAACGTCCTATATTGCCACTACTCGTCTACTTTGTAAGTATTTCTTTATCCAGTTTTTCACTTTACATATTTACGAAACAGTGATA 17,145

VCP

VCP-201

GCCTTGGTAATTGTGGGCACCTAGCTTTATATACTGGTCACTGTAACTACTGTGACAGAAAACCTAAGCTTGGATGAGATGGTTCAAAAACCTGTTGCGTTACCCTGCACTGCTCCCAAAGAGACGAGGCTTTG CGAACCATTAACACCCGTTGGATGAAAATATATTGACCAGTAGACATTATGACACTGCTCTTTGGATTGCAAACTACTCTACCAAGTTTTTGACAACGCAATGGTGACGTAACAGAGGGTTTTCTGCTCCAGAAC 17,280

VCP

VCP-201

AGAAATTTTATCCTTACAAAATGCACGTGTACAAAAACAGATGCTCTCTCGTTTATTGAGGAACCTTCAACATTTTATGACACATATAAATGCTTACACACAGAGTCAACATTTGCGGTCATGGAGTCAAAATTT TCTTTAAATAGGAAGTGTACGTGCACATGTTTTTGTCTACAGAGAAGCAAATAACTCCTTGAAGTTGTAATAAATACGTGTGATATTACGAATGTGTCTCAGTTGTAACGCCAGTACCTCAGTTAAA 17,415

VCP

VCP-201

TTAATGCCAAGGCACAGAAAGAAAAATCTGTCTAGGCTGGGCATGGTGGCTCATGCTGTAATCCAGCACTTTGGGATGCTGAGGCGGGCAGATCACCTGAGGTCGGGAGCTCAAGACCAGCCTGACCAAAA AATTACAGGTTCCGTGGTCTCTTTTATAGACAGGATCCGACCCGTAACACCGAGTACGGACATTAGGGTCTGAAACCTACGACTCCGCCGCTAGTGGACTCCAGCCCTCGAGTTCTGGTGGACTGGTTTTT 17,550

VCP

VCP-201

TGGAGAAACCCATCTCTACTACAATACAAAATAGCCAGGCGTGGTGGCCTGCTGCTACTCCAGCTACTTGGGAGGCTGAGGCAGAGAAATAGCTTGAACCCGGGAGGCGGAGGTTGCTGTAGCTGAGAT ACCTCTTTGGGGTAGAGATGATGTTTATGTTTTAATCGGTCCGACACCCGCAACGGACATGAGGGTCGATGAAACCTCCGACTCCGCTCTTATCGAACTTGGGCCCTCCGCTCCAACAGCACTCGACTCTA 17,685

VCP

VCP-201

GGAGCCATTGCACTCCAGCCTGGGCAACAAGAGCAAAACTCAATCTAAAAAAGAAAGAAAATCTATCCTACCTCTAGAGACCAATTTGCTTCTGTATTTGTTCTCTCTGGGCCCCCGCTGTTGGATGGTAC CTTCCGTAACGTGAGGTCGGACCCGTTGTTCTGTTTTGAGTTAGAAATTTTTCTTCTTTTATAGATAGGATGGAGAATCTCTGGTTAAACGGAAAGACATAAACAAGAGAGACCCGGGGCGGACAACCTACCATG 17,820

VCP

VCP-201

CCACCAACATTGAAGGCAGATCTTCCCACTCAGTCCACTCAGACTTACAACTAATCCCGGAAAACAACCTCACAGACACACCCAGATAATGCTTTACCAAGTTTCTAAATACTCCTTAATCCAGTAAAATTTGA GGTGGTTGTAACCTCCGTCTAGAAAGGGGTGAGTCAAGGTGAGTCTGAATGTTGATTAGGGGCCCTTTGTTGGAGTGTCTGTGGGCTATTACGAAATGGTCCAAAGATTTATAGGAATTAGGTCATTTAACT 17,955

VCP

VCP-201

CACCTAAAATTAAGTCCAAATCTGCTCATTGGCAACTTGGACCCCTTATGTGTCTAAACATACTTAAAGACAATAACAAGGTAATACTTCTGTATAACATGATGCAACTGCTCTGTTTACAGGAAAAACATA GTGGATTTAATTCAGGTGTTAAGACGAGTAACCGTTGAACCGTGGGAATACACAGATTTGGTATGAATTTCTGTTATTGTTCCATTATGAAGACATATTGACTACGTTGACAGAAACAAATGTTGCTTTTTGTAT 18,090

VCP

VCP-201

CTAATCCTTTCCCGAATTTGAAATTTTTTTTGTCCAGGTTGTGATTTAAGGATTTGATCTTTTGGGACTTCAACATTTGGGGTTATGGTGTGGGATTGTGCTCTCAGGATTATGATCAACACTGGTA GATTAGGAAAGGGGCTTAAACTTTAAAAATAAACAGGTCCAACACTAAAATCCTAAAACCTAGAAAACCTGAAAGTTGTAACCCCAATACCACAACCCTAACACAGGAAGTCTAATACTAGTTGTGACCA 18,225

VCP

VCP-201

TTAGTCATCCTAGACTTTATGCTAGGCAAGACCAGGCTCCGTTTTGGTCTACATAGATAATCTTCAAGGATGCAATGATACTTACACTGGTTGACTAAACTGGAGCAGCTCTGGAACCTCATGCTGTGAAATGGGTA  
AATCAGTAGGATCTGAAATACGATCCGTTCTGGTCCGAGGCAAAACCAGATGTATCTATTAGAAGTTCCACGTACTATGAATGTGACCAACTGATTTGACCTCGTCGAGACCTTGAGTACGACACTTTACCCAT

18,360

VCP

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AAAAACGTGAAAACCATAAACAATAAAGTCTCCAAAAATCCCTTGTCCACCACCAACCAATGCACTTATTCAAGAAATCACCACATAAAGATTCTAAAACACGTTGGACAGTAGACTCGCCACATGTGGCATGGG

18,495

VCP

AATGTGTAGTCTTTTATCCCTCACGCCCCCCCCACCTTTTCCCTGAGTCCCCAGAGTCCGTTGTATCATTCTTACGCCTTTGCATTCTCATAGCTTAGCTCCCATGTACGAGTGAGAACGTATGATGTTTGGTTT  
TTACACATCAGAAAATAGGGAGTGGCGGGGGGTGGAAAAGGGACTCAGGGGTCTCAGGCAACATAGTAAGAATGCGGAAACGTAAGAGTATCGAATCGAGGGTACATGCTCACTCTTGCATACTACAAACAAA

18,630

VCP

TCCATTCCTGAGTGAGTTCACCTTAGAATAATGGTATTCCAGTTGCTGCAAAATGCCATTATTTTCGTTCCCTTCTTATGGCTGAGTAGTATTCCTGGATGTATATATACCACA  
AGGTAAGGACTCACTCAAGTGAATCTTATTACCATAAGGTCAACGACGTTTACGGTAATAAAGCAAGGAAGAATACCGACTCATCATAAGGGACCTACATATATATGGTGT

3' 18,741  
5'




VCP

Feature	Location	Size	Type
<b>VCP</b>	1 .. 18,741	18,741 bp	gene
/note	= gene <a href="#">ENSG00000165280</a>		
			Protein coding
<b>VCP-203</b>	1 .. 16,605	16,605 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000448530</a>		
<b>VCP-217</b>	24 .. 16,093	16,070 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000679647</a>		
<b>VCP-214</b>	34 .. 4418	4385 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000679392</a>		
<b>VCP-223</b>	34 .. 4418	4385 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000680108</a>		
<b>VCP-225</b>	34 .. 4418	4385 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000680575</a>		
<b>VCP-211</b>	44 .. 17,293	17,250 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000678465</a>		
			Nonsense mediated decay
<b>VCP-201</b>	44 .. 16,605	16,562 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000358901</a>		
<b>VCP-231</b>	44 .. 16,092	16,049 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000681335</a>		
<b>VCP-229</b>	44 .. 16,073	16,030 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000680916</a>		
			Nonsense mediated decay
<b>VCP-235</b>	44 .. 16,017	15,974 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000681690</a>		
			Retained intron
<b>VCP-206</b>	44 .. 12,921	12,878 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000480327</a>		
			Retained intron
<b>VCP-222</b>	44 .. 5994	5951 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000680079</a>		
			Nonsense mediated decay
<b>VCP-232</b>	44 .. 4778	4735 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000681386</a>		
<b>VCP-221</b>	46 .. 18,741	18,696 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000679902</a>		
<b>VCP-216</b>	46 .. 16,048	16,003 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000679599</a>		
			Retained intron
<b>VCP-208</b>	53 .. 15,985	15,933 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000676836</a>		
			Retained intron
<b>VCP-219</b>	58 .. 16,035	15,978 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000679862</a>		
<b>VCP-209</b>	68 .. 17,293	17,226 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000677257</a>		
<b>VCP-218</b>	78 .. 17,293	17,216 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000679800</a>		
			Retained intron
<b>VCP-210</b>	101 .. 17,293	17,193 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000678018</a>		
			Nonsense mediated decay
<b>VCP-212</b>	108 .. 17,293	17,186 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000678650</a>		
<b>VCP-220</b>	108 .. 4418	4311 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000679901</a>		
<b>VCP-207</b>	120 .. 15,799	15,680 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000493886</a>		
			Retained intron
<b>VCP-213</b>	227 .. 16,011	15,785 bp	prim_transcript
/note	= primary transcript <a href="#">ENST00000679204</a>		
			Nonsense mediated decay
<b>VCP-217</b>	316 .. 15,692	15,377 bp	CDS
▶ 16 segments = 2202 bp			
/note	= coding sequence <a href="#">ENSP00000506216</a>		
/translation	= MASGAD,,SKGDDLSTA ILKQKRNPNRLIV DEAINEDNSVVSLSQ,,PKMDELQ LFRGDTVLLKGGKRRREAV CIVLSDDTCSDEKIRMNRVVRNNLRVRLGDVIS,,IQPCPDV KYGKRIHVLPIDDTVEGITGNLFEVYLKPYFLEA YRPIRK,,GDI FLVRGGMRAVEFKV VETDPSYCVIAPDTVIHCEGEP IKRE,,DEESLNEVGYDDIGGCRKQLAQ IKEMVELPLRHPALFKAIGVK,,PPRGILLYGPPGTGKTLIARAVANETGAFFFLIN,,GPEIMSKLAGES NLRKAFEEAEKNAPAIIFIDELDAIAPKREK,,THGEVERRIVSQLLTMDGLKQRAHVIVMAATNRPNSIDPALRRF,,GRFDREV DIGIPDATGRLEILQIHTKNMKLADDDVLEQ,,VANETHGHV GADLAALCSEAALQAI RKKMDLIDLEDETIDA EVMNSLAVTMDDFR,,WALSQSNPSALRET VVEVPQVTWEDIGGLEDV KRELQ ELVQ,,YPVEHPDKFLKFGMTPSKGVLFY GPPGCGKTLAKAIANECQANFISIKGPELTMWFGESEANVREIFDK,,A RQAAPCVLFFDELDSIAKARGGNIGDGGGAADRVINQLTMDGMSTKKNVFIIGATNRPDIIDPAILRPGRLDQLIYIPLPEKSRVA ILKANLRKSPVAK,,DVDFLEFLAKMTNGFSGDALTEICQRA,,LSWPAWT LFPGGGGA QSSGNGVRRPAPGSSKNSFAT*		
<b>VCP-201</b>	316 .. 15,552	15,237 bp	CDS
▶ 17 segments = 2421 bp			
/note	= coding sequence <a href="#">ENSP00000351777</a>		
/translation	= MASGAD,,SKGDDLSTA ILKQKRNPNRLIV DEAINEDNSVVSLSQ,,PKMDELQ LFRGDTVLLKGGKRRREAV CIVLSDDTCSDEKIRMNRVVRNNLRVRLGDVIS,,IQPCPDV KYGKRIHVLPIDDTVEGITGNLFEVYLKPYFLEA YRPIRK,,GDI FLVRGGMRAVEFKV VETDPSYCVIAPDTVIHCEGEP IKRE,,DEESLNEVGYDDIGGCRKQLAQ IKEMVELPLRHPALFKAIGVK,,PPRGILLYGPPGTGKTLIARAVANETGAFFFLIN,,GPEIMSKLAGES NLRKAFEEAEKNAPAIIFIDELDAIAPKREK,,THGEVERRIVSQLLTMDGLKQRAHVIVMAATNRPNSIDPALRRF,,GRFDREV DIGIPDATGRLEILQIHTKNMKLADDDVLEQ,,VANETHGHV GADLAALCSEAALQAI RKKMDLIDLEDETIDA EVMNSLAVTMDDFR,,WALSQSNPSALRET VVEVPQVTWEDIGGLEDV KRELQ ELVQ,,YPVEHPDKFLKFGMTPSKGVLFY GPPGCGKTLAKAIANECQANFISIKGPELTMWFGESEANVREIFDK,,A RQAAPCVLFFDELDSIAKARGGNIGDGGGAADRVINQLTMDGMSTKKNVFIIGATNRPDIIDPAILRPGRLDQLIYIPLPEKSRVA ILKANLRKSPVAK,,DVDFLEFLAKMTNGFSGDALTEICQ RACKLAIRSEISEIRRE REBQSSGNGVRRPAPGSSKNSFAT*		

Feature	Location	Size	Type
<b>VCP-209</b>	316 .. 15,552	15,237 bp	CDS
▶ 17 segments = 2415 bp			
/note	= coding sequence <a href="#">ENSP00000504354</a>		
/translation	= MASGAD,,SKGDDLSTAILKQKNRPNRLIVDEAINEDNSVVSLSQ,,MDELQLFRGDTVLLKGGKRRREAVCIVLSDDTCSDEKIRMNRVVRNNLRVRLGDVIS,,IQPCPDVYKYGRIHVLPIDDTVEGITGNLFEVYLPKPYFLEAYRPIRK,,GDFILVRGGMRAVEFKVETDPSYCVIAPDTVIHCEGEP IKRE,,DEEESLNEVGYDDIGGCRKQLAQIKEMVELPLRHPALFKAIGVK,,PPRGILLYGPPGTGKTLIARAVANETGAFFFLIN,,GPEIMSKLAGESENLRKAFEEAEKNAPAIIFIDELDAIAPKREK,,THGEVERRIVSQLTLM DGLKQRAHVIVMAATNRPNSIDPALRRF,,GRFDREV DIGIPDATGRLEILQIHTKMKLADDDVLEQ,,VANETHGHV GADLAALCSEAALQAIIRKMDLIDLEDETIDA EVMNSLAVT MDDFR,,WALSQSNPSALRETVEVPQVTWEDI GGLEDVKRELQELVQ,,YPVEHPDKFLKFGMTPSKGVLFY GPPGCGKTLAKAIA NECQANFISIKGPELLTMWFGESEANVREIFDK,,ARQAAPCVLFFDELDSIAKARGNIGDGGGAADRVINQILTEM DGMSTKKNVFIIGATNRPDIIDPALIRPGRLDQLIYIPLPDEKSRVAILKANLRKSPVAK,,DVDFLEFLAKMTNGFSGADLTEICQ RACKLAIRESIESEIRRERERQTNPSAM,,VEEDDPVPEIRRDHFEEAMRFARRSVSDN DIRKYEMFAQT LQSRGFGSFR,,FPSQGGGTSQGGGTTGGSVYTEDNDDDLYG*		
<b>VCP-231</b>	316 .. 15,552	15,237 bp	CDS
▶ 16 segments = 2265 bp			
/note	= coding sequence <a href="#">ENSP00000505230</a>		
/translation	= MASGAD,,SKGDDLSTAILKQKNRPNRLIVDEAINEDNSVVSLSQ,,PKMDELQLFRGDTVLLKGGKRRREAVCIVLSDDTCSDEKIRMNRVVRNNLRVRLGDVIS,,IQPCPDVYKYGRIHVLPIDDTVEGITGNLFEVYLPKPYFLEAYRPIRK,,GDFILVRGGMRAVEFKVETDPSYCVIAPDTVIHCEGEP IKRE,,DEEESLNEVGYDDIGGCRKQLAQIKEMVELPLRHPALFKAIGVK,,PPRGILLYGPPGTGKTLIARAVANETGAFFFLIN,,GPEIMSKLAGESENLRKAFEEAEKNAPAIIFIDELDAIAPKREK,,THGEVERRIVSQLTLM DGLKQRAHVIVMAATNRPNSIDPALRRF,,GRFDREV DIGIPDATGRLEILQIHTKMKLADDDVLEQ,,VANETHGHV GADLAALCSEAALQAIIRKMDLIDLEDETIDA EVMNSLAVT MDDFR,,WALSQSNPSALRETVEVPQVTWEDI GGLEDVKRELQELVQ,,YPVEHPDKFLKFGMTPSKGVLFY GPPGCGKTLAKAIA NECQANFISIKGPELLTMWFGESEANVREIFDK,,ARQAAPCVLFFDELDSIAKARGNIGDGGGAADRVINQILTEM DGMSTKKNVFIIGATNRPDIIDPALIRPGRLDQLIYIPLPDEKSRVAILKANLRKSPVAK,,EVEEDDPVPEIRRDHFEEAMRFARRSVSDN DIRKYEMFAQT LQSRGFGSFR,,FPSQGGGTSQGGGTTGGSVYTEDNDDDLYG*		
<b>VCP-221</b>	316 .. 15,297	14,982 bp	CDS
▶ 16 segments = 2319 bp			
/note	= coding sequence <a href="#">ENSP00000506338</a>		
/translation	= MASGAD,,SKGDDLSTAILKQKNRPNRLIVDEAINEDNSVVSLSQ,,PKMDELQLFRGDTVLLKGGKRRREAVCIVLSDDTCSDEKIRMNRVVRNNLRVRLGDVIS,,IQPCPDVYKYGRIHVLPIDDTVEGITGNLFEVYLPKPYFLEAYRPIRK,,GDFILVRGGMRAVEFKVETDPSYCVIAPDTVIHCEGEP IKRE,,DEEESLNEVGYDDIGGCRKQLAQIKEMVELPLRHPALFKAIGVK,,PPRGILLYGPPGTGKTLIARAVANETGAFFFLIN,,GPEIMSKLAGESENLRKAFEEAEKNAPAIIFIDELDAIAPKREK,,THGEVERRIVSQLTLM DGLKQRAHVIVMAATNRPNSIDPALRRF,,GRFDREV DIGIPDATGRLEILQIHTKMKLADDDVLEQ,,VANETHGHV GADLAALCSEAALQAIIRKMDLIDLEDETIDA EVMNSLAVT MDDFR,,WALSQSNPSALRETVEVPQVTWEDI GGLEDVKRELQELVQ,,YPVEHPDKFLKFGMTPSKGVLFY GPPGCGKTLAKAIA NECQANFISIKGPELLTMWFGESEANVREIFDK,,ARQAAPCVLFFDELDSIAKARGNIGDGGGAADRVINQILTEM DGMSTKKNVFIIGATNRPDIIDPALIRPGRLDQLIYIPLPDEKSRVAILKANLRKSPVAK,,DVDFLEFLAKMTNGFSGADLTEICQ RACKLAIRESIESEIRRERERQTNPSAM,,EVEEDDPVPEIRRDHFEEAMRFARRSVSDN DIRKYEMFAQT LQSRGFGSFR,,FPSQGGGTSQGGGTTGGSVYTEDNDDDLYG*		
<b>VCP-202</b>	464 .. 16,081	15,618 bp	prim_transcript
▶ 1506 .. 7330 5825 bp → gene			
/note	= gene <a href="#">ENSG00000288699</a> Protein coding		
▶ 1506 .. 7330 5825 bp → prim_transcript			
/note	= primary transcript <a href="#">ENST00000681845</a> Nonsense mediated decay		
<b>VCP-215</b>	4307 .. 4778	472 bp	CDS
▶ 2 segments = 321 bp			
/note	= coding sequence <a href="#">ENSP00000506658</a>		
/translation	= FKR**PINSHSQTEEPSQSVNC**SHQ*GQCQGVLPV,,AQ*PKGLNFLSSAQDG*IAVVP R*HSV AERKEETRSC LHRPF**YLF**EDSDE*SCSE*PSC TPRGCHQ 107 codons (14 internal stop codons)		
<b>VCP-228</b>	4307 .. 4778	472 bp	CDS
▶ 2 segments = 306 bp			
/note	= coding sequence <a href="#">ENSP00000505674</a>		
/translation	= FKR**PINSHSQTEEPSQSVNC**SHQ*GQCQGVLPV,,GLNFLSSAQDG*IAVVP R*HSV AERKEETRSC LHRPF**YLF**EDSDE*SCSE*PSC TPRGCHQ 102 codons (13 internal stop codons)		
<b>VCP-215</b>	4307 .. 4778	472 bp	prim_transcript
▶ 4307 .. 4778 472 bp → prim_transcript			
/note	= primary transcript <a href="#">ENST00000679449</a>		
<b>VCP-228</b>	4307 .. 4778	472 bp	prim_transcript
▶ 4307 .. 4778 472 bp → prim_transcript			
/note	= primary transcript <a href="#">ENST00000680900</a>		
<b>VCP-226</b>	4606 .. 8515	3910 bp	prim_transcript
▶ 4606 .. 8515 3910 bp → prim_transcript			
/note	= primary transcript <a href="#">ENST00000680731</a> Nonsense mediated decay		
<b>VCP-202</b>	4612 .. 15,552	10,941 bp	CDS
▶ 15 segments = 2286 bp			
/note	= coding sequence <a href="#">ENSP00000399456</a>		
/translation	= MDELQLFRGDTVLLKGGKRRREAVCIVLSDDTCSDEKIRMNRVVRNNLRVRLGDVIS,,IQPCPDVYKYGRIHVLPIDDTVEGITGNLFEVYLPKPYFLEAYRPIRK,,GDFILVRGGMRAVEFKVETDPSYCVIAPDTVIHCEGEP IKRE,,DEEESLNEVGYDDIGGCRKQLAQIKEMVELPLRHPALFKAIGVK,,PPRGILLYGPPGTGKTLIARAVANETGAFFFLIN,,GPEIMSKLAGESENLRKAFEEAEKNAPAIIFIDELDAIAPKREK,,THGEVERRIVSQLTLM DGLKQRAHVIVMAATNRPNSIDPALRRF,,GRFDREV DIGIPDATGRLEILQIHTKMKLADDDVLEQ,,VANETHGHV GADLAALCSEAALQAIIRKMDLIDLEDETIDA EVMNSLAVT MDDFR,,WALSQSNPSALRETVEVPQVTWEDI GGLEDVKRELQELVQ,,YPVEHPDKFLKFGMTPSKGVLFY GPPGCGKTLAKAIA NECQANFISIKGPELLTMWFGESEANVREIFDK,,ARQAAPCVLFFDELDSIAKARGNIGDGGGAADRVINQILTEM DGMSTKKNVFIIGATNRPDIIDPALIRPGRLDQLIYIPLPDEKSRVAILKANLRKSPVAK,,DVDFLEFLAKMTNGFSGADLTEICQ RACKLAIRESIESEIRRERERQTNPSAM,,EVEEDDPVPEIRRDHFEEAMRFARRSVSDN DIRKYEMFAQT LQSRGFGSFR,,FPSQGGGTSQGGGTTGGSVYTEDNDDDLYG*		
<b>VCP-203</b>	4612 .. 15,552	10,941 bp	CDS
▶ 15 segments = 2286 bp			
/note	= coding sequence <a href="#">ENSP00000392088</a>		
/translation	= MDELQLFRGDTVLLKGGKRRREAVCIVLSDDTCSDEKIRMNRVVRNNLRVRLGDVIS,,IQPCPDVYKYGRIHVLPIDDTVEGITGNLFEVYLPKPYFLEAYRPIRK,,GDFILVRGGMRAVEFKVETDPSYCVIAPDTVIHCEGEP IKRE,,DEEESLNEVGYDDIGGCRKQLAQIKEMVELPLRHPALFKAIGVK,,PPRGILLYGPPGTGKTLIARAVANETGAFFFLIN,,GPEIMSKLAGESENLRKAFEEAEKNAPAIIFIDELDAIAPKREK,,THGEVERRIVSQLTLM DGLKQRAHVIVMAATNRPNSIDPALRRF,,GRFDREV DIGIPDATGRLEILQIHTKMKLADDDVLEQ,,VANETHGHV GADLAALCSEAALQAIIRKMDLIDLEDETIDA EVMNSLAVT MDDFR,,WALSQSNPSALRETVEVPQVTWEDI GGLEDVKRELQELVQ,,YPVEHPDKFLKFGMTPSKGVLFY GPPGCGKTLAKAIA NECQANFISIKGPELLTMWFGESEANVREIFDK,,ARQAAPCVLFFDELDSIAKARGNIGDGGGAADRVINQILTEM DGMSTKKNVFIIGATNRPDIIDPALIRPGRLDQLIYIPLPDEKSRVAILKANLRKSPVAK,,DVDFLEFLAKMTNGFSGADLTEICQ RACKLAIRESIESEIRRERERQTNPSAM,,EVEEDDPVPEIRRDHFEEAMRFARRSVSDN DIRKYEMFAQT LQSRGFGSFR,,FPSQGGGTSQGGGTTGGSVYTEDNDDDLYG*		
<b>VCP-212</b>	4612 .. 15,552	10,941 bp	CDS
▶ 15 segments = 2286 bp			
/note	= coding sequence <a href="#">ENSP00000503426</a>		
/translation	= MDELQLFRGDTVLLKGGKRRREAVCIVLSDDTCSDEKIRMNRVVRNNLRVRLGDVIS,,IQPCPDVYKYGRIHVLPIDDTVEGITGNLFEVYLPKPYFLEAYRPIRK,,GDFILVRGGMRAVEFKVETDPSYCVIAPDTVIHCEGEP IKRE,,DEEESLNEVGYDDIGGCRKQLAQIKEMVELPLRHPALFKAIGVK,,PPRGILLYGPPGTGKTLIARAVANETGAFFFLIN,,GPEIMSKLAGESENLRKAFEEAEKNAPAIIFIDELDAIAPKREK,,THGEVERRIVSQLTLM DGLKQRAHVIVMAATNRPNSIDPALRRF,,GRFDREV DIGIPDATGRLEILQIHTKMKLADDDVLEQ,,VANETHGHV GADLAALCSEAALQAIIRKMDLIDLEDETIDA EVMNSLAVT MDDFR,,WALSQSNPSALRETVEVPQVTWEDI GGLEDVKRELQELVQ,,YPVEHPDKFLKFGMTPSKGVLFY GPPGCGKTLAKAIA NECQANFISIKGPELLTMWFGESEANVREIFDK,,ARQAAPCVLFFDELDSIAKARGNIGDGGGAADRVINQILTEM DGMSTKKNVFIIGATNRPDIIDPALIRPGRLDQLIYIPLPDEKSRVAILKANLRKSPVAK,,DVDFLEFLAKMTNGFSGADLTEICQ RACKLAIRESIESEIRRERERQTNPSAM,,EVEEDDPVPEIRRDHFEEAMRFARRSVSDN DIRKYEMFAQT LQSRGFGSFR,,FPSQGGGTSQGGGTTGGSVYTEDNDDDLYG*		
<b>VCP-219</b>	4612 .. 15,552	10,941 bp	CDS
▶ 15 segments = 2283 bp			
/note	= coding sequence <a href="#">ENSP00000504990</a>		
/translation	= MDELQLFRGDTVLLKGGKRRREAVCIVLSDDTCSDEKIRMNRVVRNNLRVRLGDVIS,,IQPCPDVYKYGRIHVLPIDDTVEGITGNLFEVYLPKPYFLEAYRPIRK,,GDFILVRGGMRAVEFKVETDPSYCVIAPDTVIHCEGEP IKRE,,DEEESLNEVGYDDIGGCRKQLAQIKEMVELPLRHPALFKAIGVK,,PPRGILLYGPPGTGKTLIARAVANETGAFFFLIN,,GPEIMSKLAGESENLRKAFEEAEKNAPAIIFIDELDAIAPKREK,,THGEVERRIVSQLTLM DGLKQRAHVIVMAATNRPNSIDPALRRF,,GRFDREV DIGIPDATGRLEILQIHTKMKLADDDVLEQ,,VANETHGHV GADLAALCSEAALQAIIRKMDLIDLEDETIDA EVMNSLAVT MDDFR,,WALSQSNPSALRETVEVPQVTWEDI GGLEDVKRELQELVQ,,YPVEHPDKFLKFGMTPSKGVLFY GPPGCGKTLAKAIA NECQANFISIKGPELLTMWFGESEANVREIFDK,,ARQAAPCVLFFDELDSIAKARGNIGDGGGAADRVINQILTEM DGMSTKKNVFIIGATNRPDIIDPALIRPGRLDQLIYIPLPDEKSRVAILKANLRKSPVAK,,DVDFLEFLAKMTNGFSGADLTEICQ RACKLAIRESIESEIRRERERQTNPSAM,,EVEEDDPVPEIRRDHFEEAMRFARRSVSDN DIRKYEMFAQT LQSRGFGSFR,,FPSQGGGTSQGGGTTGGSVYTEDNDDDLYG*		



Feature	Location	Size	Color	Symbol	Type
<b>VCP-232</b>	4612 .. 4778	167 bp	■	→	CDS
/note	= coding sequence <a href="#">ENSP00000505509</a>				
/translation	= MDELQLFRGDTVLLKGGKRREAVCIVLSDDTCSDEKIRMNRVVRNNLRVRLGDVI 55 amino acids = 6.4 kDa				
<b>VCP-234</b>	5852 .. 7418	1567 bp	■	→	CDS
▶ 3 segments = 328 bp					
/note	= coding sequence <a href="#">ENSP00000505893</a>				
/translation	= HPAAMP*CEVRQTYPCAAH**HSGRHYW*SLRGIP*AVLPGSVSTHPES,,RDGVSPCWSGSSRTLDLR,,RHFSCPWWDACCGVQSGGNRS*PLHCCSRHSDPLRRGAYQTR 109 codons (6 internal stop codons)				
<b>VCP-234</b>	5852 .. 7418	1567 bp	■	→	prim_transcript
/note	= primary transcript <a href="#">ENST00000681562</a>				
<b>Donor Template SNV -&gt; REV</b>	7286 .. 7385	100 bp	■	⇌	misc_feature
<b>VCP-224</b>	7288 .. 9691	2404 bp	■	→	prim_transcript
/note	= primary transcript <a href="#">ENST00000680520</a> Nonsense mediated decay				
<b>VCP-236</b>	7288 .. 9691	2404 bp	■	→	prim_transcript
/note	= primary transcript <a href="#">ENST00000681789</a> Nonsense mediated decay				
<b>Protospacer Sequence</b>	7304 .. 7323	20 bp	■	⇌	misc_feature
<b>SNV</b>	7318 .. 7318	1 bp	■	⇌	misc_feature
/note	= REV=G SNV=A				
<b>PAM</b>	7324 .. 7326	3 bp	■	⇌	misc_feature
<b>VCP-227</b>	7361 .. 11,654	4294 bp	■	→	CDS
▶ 6 segments = 709 bp					
/note	= coding sequence <a href="#">ENSP00000506387</a>				
/translation	= LHCCSRHSDPLRRGAYQTR,,AS*RNPA LRTSWNRKDPDCSSCSK*DWSLLLLDQW,S*DHEQIGW*V*EQPS*SL*GG*EECSCHHLH**ARCHRSQKRE,,NSWRGGAAHCITVVDPHGWPKAEGTCDGCGSNQQTQQH *PSSTA IW,,SL*QGGRYWNS*CYRTL RDSSDPYQEHEAGR*CGPGT,,GSQ*DSRACGC*LSSPVLRGCSA SHPQEDGSH*PRG*DH*CRGHELSSSYG*LP 236 codons (20 internal stop codons)				
<b>VCP-227</b>	7361 .. 11,654	4294 bp	■	→	prim_transcript
/note	= primary transcript <a href="#">ENST00000680834</a>				
<b>VCP-230</b>	10,319 .. 11,654	1336 bp	■	→	prim_transcript
/note	= primary transcript <a href="#">ENST00000681125</a> Nonsense mediated decay				
<b>VCP-205</b>	12,645 .. 15,762	3118 bp	■	→	prim_transcript
/note	= primary transcript <a href="#">ENST00000479300</a> Retained intron				
<b>VCP-204</b>	14,836 .. 15,496	661 bp	■	→	prim_transcript
/note	= primary transcript <a href="#">ENST00000466100</a> Retained intron				
<b>VCP-233</b>	15,139 .. 16,605	1467 bp	■	→	prim_transcript
/note	= primary transcript <a href="#">ENST00000681537</a>				
<b>VCP-233</b>	15,139 .. 15,533	395 bp	■	→	CDS
▶ 2 segments = 231 bp					
/note	= coding sequence <a href="#">ENSP00000505847</a>				
/translation	= EVEEDDPVPEIRRDHFEEA MRFARRVSDNDIRKYEMFAQTLQ QSRGFGSFR,,EPGWSWPQSGQWRRHRWQ CIHRRQ* 76 amino acids = 9.4 kDa				

Primer	Length		Binding Sites		Tm	Date Added
✓ <b>PCR Reverse</b>	23-mer		7059 .. 7081	→	58°C	Jun 15, 2022
/sequence	= TCAGGTTTTGTTCACTGACCTCT 43% GC / 6971.6 Da					
✓ <b>Donor Template SNV -&gt; REV</b>	100-mer		7286 .. 7385	←	78°C	Jun 15, 2022
/sequence	= CACTGTGTCTGGAGCAACAATGCAATAAGGGCTAGGATCTGTTTCCACCACTTTGAACTCCACAGCACGCATCCCACCACGGACAAGAAAAATGTCTCct 49% GC / 30,652.9 Da					
✓ <b>gRNA Protospacer</b>	20-mer		7304 .. 7323	→	59°C	Jun 15, 2022
/sequence	= CCGTGGTGGGATGCATGCTG 65% GC / 6205.1 Da					
✓ <b>PCR Forward</b>	20-mer		7480 .. 7499	←	55°C	Jun 15, 2022
/sequence	= GCACCCAGTCCTGACAGTTA 55% GC / 6062.0 Da					
✓ <b>Sanger Sequencing Primer</b>	20-mer		7480 .. 7499	←	55°C	Jun 15, 2022
/sequence	= GCACCCAGTCCTGACAGTTA 55% GC / 6062.0 Da					