

Figure 1

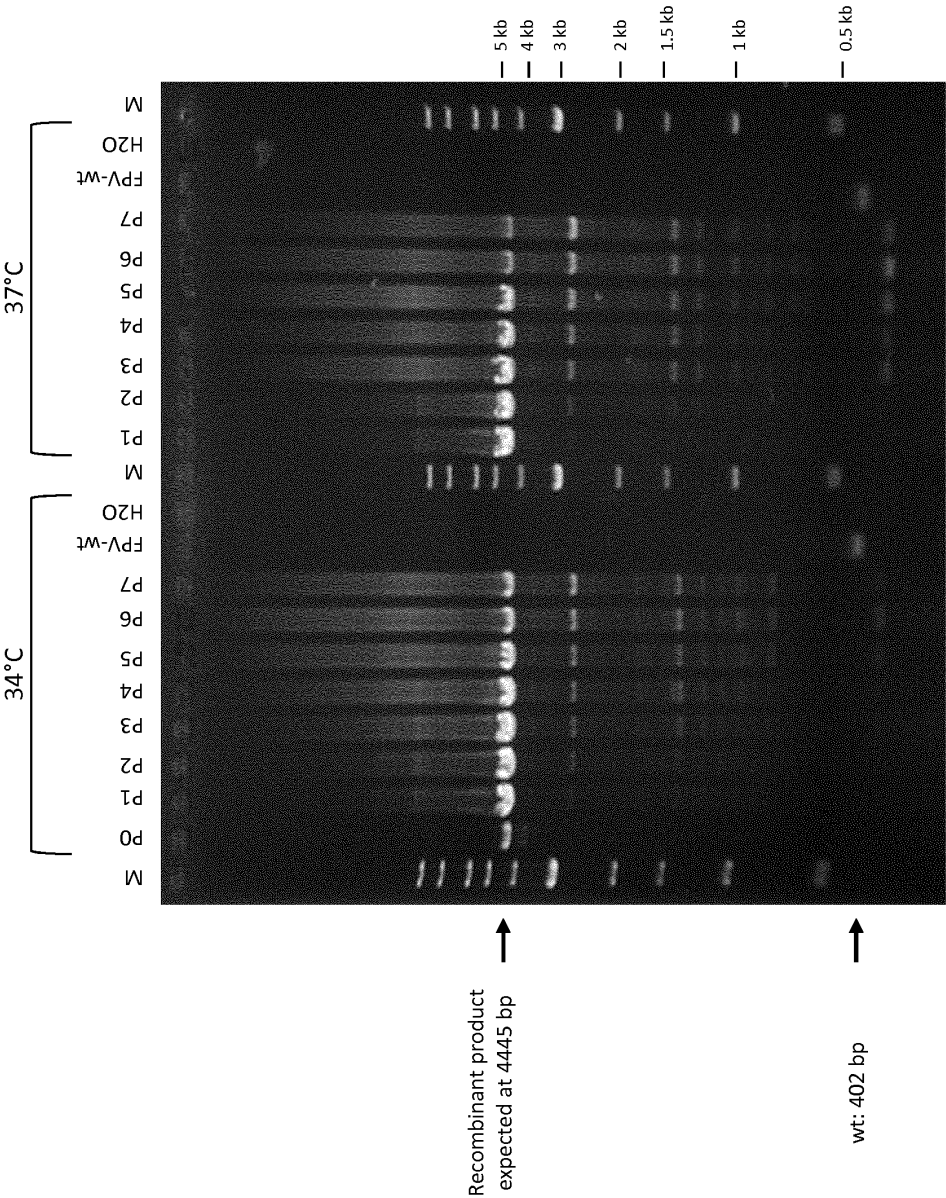


Figure 2A

PANVAC - MUC1

6x VNTR

MTPGTQSPFFLLLLTLTVVTGSGHASSTPGGEKETSA

QSSVPSSTEKNAV

SMTSSVLSSHSPGSGSSTTQGGQDVTTLAPATEP

PASGSAA

LGQDVT

SVPT

RPAL

GSTAPP

AHGV

TSAPD

TRPAP

VNTR #1

GSTAPP

AHGV

TSAPD

TRPAP

VNTR #2

GSTAPP

AHGV

TSAPD

TRPAP

VNTR #3

GSTAPP

AHGV

TSAPD

TRPAP

VNTR #4

GSTAPP

AHGV

TSAPD

TRPAP

VNTR #5

GSTAPP

AHGV

TSAPD

TRPAP

VNTR #6

ASTLVHNGTSARA

TTTPASKSTPF

SIPSHHSD

PTTLASHSTKTDASS

THHSTV

PPLTSSNHSTSPQL

STGV

SFFFLSFHIS

NLQFNSSLED

PSDYYQELQ

RDISEM

FLQIYKQGGFLGLS

NIKFRPGSV

VVQLTLAFREGT

INVHDVETQ

FNQYKTEAAS

RYNLTISDVSVSD

VPFPFSAQSGAG

VPGWGIAL

LVLCVL

VALAIVYL

IALAVC

QCR

RKNYGQ

LDIF

FPARDTYHPMSE

YPTYH

THGRYV

PPSS

STRSP

YEKVSAG

NGG

SSLSY

TNP

AVAA

TSANL-

Figure 2B

mBN336/mBN373/mBN420 - MUC1

MTPGTQSPFFLLLLTLTVVTGSGHASSTPGGEKETSA^QRSSVPSSTEKNAV
SMTSSVLSSHSPGSGSSTTQGGQDVT^LAPATEPASGSAA^LWGQDVTSPVTRPAL
3x VNTR { GYLAPPAHGVTSYLDTRPAP ← VNTR #1 (PANVAC VNTR # 2)
 VSTAPPAHGVTSAPDTRPAP ← VNTR #2 (PANVAC VNTR # 1)
 GSTAPPAHGVTSAPDTRPAP ← VNTR #3 (PANVAC VNTR # 3)
ASTLVHNGTSARATTT^PASKSTPFSIPSHHSDTP^TTLASHSTKTDASSTHHSTV
PPLTSSNHSTSPQLSTGV^SFFFLSFHISNLQFNSSLED^PSTDYYQELQ^RDISSEM
FLQIYKQGGFLGLSNIKFRPGSVV^QLTLAFREGTINVHDVETQFNQYKTEAAS
RYNL^TISDVSVSDVPFPFSAQSGAGVPGWGIALLVLCVLVYLAI^VYLI^ALAVC
Q^VRRKNYGQLDIFPARDTYHPMSEYPT^YHTHGRYVPPSS^LFRSPYEKVSAGNGG
SYLSYTNPAVAATSANL-

Figure 3

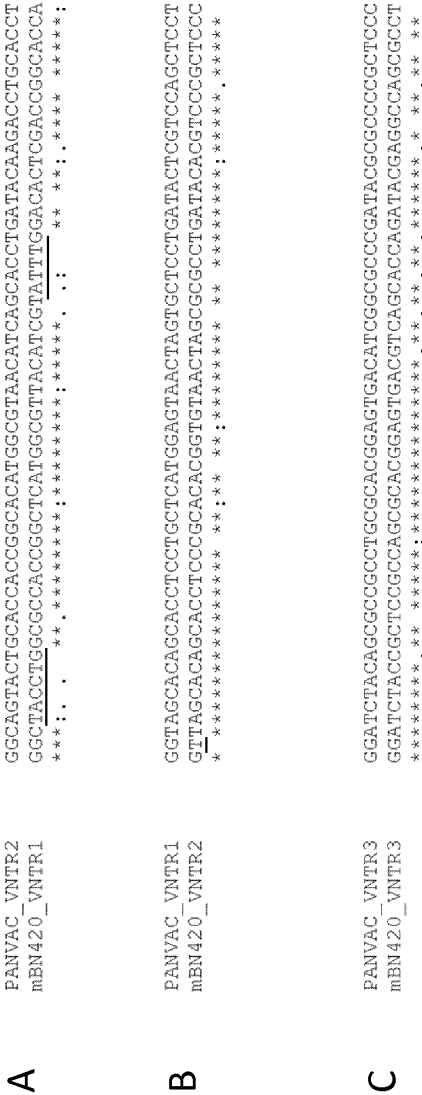


Figure 4A

PANVAC_MUC1 mBN336_MUC1	60 60 *****	ATGACACGGGACCCAGTCTCCTTTCTCCTGCTGCTGCTCCTCACAGTGTACAGTT ATGACACGGGACCCAGTCTCCTTTCTCCTGCTGCTGCTCCTCACAGTGTACAGTT *****
PANVAC_MUC1 mBN336_MUC1	120 120 *****	GTTACGGGTTCTGGTCATGCAAGCTCTACCCAGGTGGAGAAAAGGAGACTTCGGGTACC GTTACGGGTTCTGGTCATGCAAGCTCTACCCAGGTGGAGAAAAGGAGACTTCGGGTACC *****
PANVAC_MUC1 mBN336_MUC1	180 180 *****	CAGAGAAGTTCAAGTGCCAGCTCTACTGAGAGAATGCTGTGATATGACAAGTCCGTA CAGAGAAGTTCAAGTGCCAGCTCTACTGAGAGAATGCTGTGATATGACAAGTCCGTA *****
PANVAC_MUC1 mBN336_MUC1	240 240 *****	CTCTCCAGCCACAGCCCGGTTCAAGGCTCTCCACCACTCAGGGACAGGATGTCACCTG CTCTCCAGCCACAGCCCGGTTCAAGGCTCTCCACCACTCAGGGACAGGATGTCACCTG *****
PANVAC_MUC1 mBN336_MUC1	300 300 *****	GCCCGGGCCACGGAACCAAGCTTCAGGTTCAAGTGCCTTGTGGGACAGGATGTCACCTG GCACGGCCACGGAACCAAGCTTCAGGTTCAAGTGCCTTGTGGGACAGGATGTCACCTG *****
PANVAC_MUC1 mBN336_MUC1	360 360 *****	GTACCAGTTACTAGACCAGCTTTAGTAGACAGACCTCCTGCTCATGGAGTAACAGT GTACCAGTTACTAGACCAGCTTTAGTAGACAGCTGCGGCCACCGGCTCATGGCGTTACATCG *****
PANVAC_MUC1 mBN336_MUC1	420 396 *****	GCTCCTGATACTGCTCCAGCTCTGGCAGTACTGCACCAACCGGCACATGGCGTAACATCA TATTTGGACACTCGACCGGCACCAAGTTAGCACAGCA----- * ** *****
PANVAC_MUC1 mBN336_MUC1	480 396 -----	GCACTGATACAGACCTGCACCTGGATCTACAGGCGCGCTGCGCACGGAGTGACATCG -----
PANVAC_MUC1 mBN336_MUC1	540 415 -----	GCGCCGATACGCGCCCGCTCCCGTAGCACCACCGCCCGCCCGCCAGCGTGTACAGT -----CCTCCGACACGGGTGTAA-- ** ***** *
PANVAC_MUC1 mBN336_MUC1	600 420 -----	GCACCGATACCGCGCGGCACCCGGAGTACCGTCCACCTGCACACGGGGTCACAGC -----CTAGC * ***
PANVAC_MUC1 mBN336_MUC1	660 480 *****	GCGCAGACACTCGACCTGCGCAGGGTGGACTGCCCTCCGGGCAATGGTGTGACCTCA GCGCTGATACAGTCCCGCTCCCGGATCTACCGTCCCGCAGCGCAGGAGTGACGTCA *****
PANVAC_MUC1 mBN336_MUC1	720 540 *****	GCTCCTGACACAAGGCCAGCCAGCTAGCACTCTGGTGCACAACGGGACCTCTGCCAGG GCACAGATACGAGGCCAGCGCTGTAGACTCTGGTGCACAACGGGACCTCTGCCAGG *****
PANVAC_MUC1 mBN336_MUC1	780 600 *****	GCTACCACAACCCAGCCAGCAAGAGCACTCCATTCTCAATTCAGGCCACCACCTGTGAT GCTACCACAACCCAGCCAGCAAGAGCACTCCATTCTCAATTCAGGCCACCACCTGTGAT *****

PANVAC_MUC1	ACTCTACACCCCTTGCAGCCATAGCACCAAGACTGATGCAGTAGCACTCACCATAGC	840
mBN336_MUC1	ACTCTACACCCCTTGCAGCCATAGCACCAAGACTGATGCAGTAGCACTCACCATAGC	660
PANVAC_MUC1	ACGGTACCTCTCTCACTCTCCAAATCACAGCACTTCTCCACGTTGTCCTACTGGGGTCTC	900
mBN336_MUC1	ACGGTACCTCTCTCACTCTCCAAATCACAGCACTTCTCCACGTTGTCCTACTGGGGTCTC	720
PANVAC_MUC1	TCCTCTTTTTCCTGCTCTTTACATTTCAAACCTCCAGTTTAAATCCTCTCTGGAAGAT	960
mBN336_MUC1	TCCTCTTTTTCCTGCTCTTTACATTTCAAACCTCCAGTTTAAATCCTCTCTGGAAGAT	780
PANVAC_MUC1	CCAGACCGACTACTACCAAGAGCTGCAGAGACATTTCTGAATGTTTTCGACATTT	1020
mBN336_MUC1	CCAGACCGACTACTACCAAGAGCTGCAGAGACATTTCTGAATGTTTTCGACATTT	840
PANVAC_MUC1	TATAACAGGGGGTTTTCTGGGCCCTCTCAATATTAAGTTCAGGCCAGGATCTGTGGTGTG	1080
mBN336_MUC1	TATAACAGGGGGTTTTCTGGGCCCTCTCAATATTAAGTTCAGGCCAGGATCTGTGGTGTG	900
PANVAC_MUC1	GTACAAATGACTCTGGCCTTCCGAGAAGGTACCAATCAATGTCCAGCACTGGAGACACAG	1140
mBN336_MUC1	GTACAGTTGACTCTGGCCTTCCGAGAAGGTACCAATCAATGTCCAGCACTGGAGACACAG	960
PANVAC_MUC1	TTCATCAGTATATAACGGAAGCAGCCTCTCGATATACCTCAGCATCTCAGAGCTCAGC	1200
mBN336_MUC1	TTCATCAGTATATAACGGAAGCAGCCTCTCGATATACCTCAGCATCTCAGAGCTCAGC	1020
PANVAC_MUC1	GTGAGTGATGTGCCATTTCCCTTTCTCTGCCAGTCTGGGGCTGGGTGCCAGGCTGGGCTC	1260
mBN336_MUC1	GTGAGTGATGTGCCATTTCCCTTTCTCTGCCAGTCTGGGGCTGGGTGCCAGGCTGGGCTC	1080
PANVAC_MUC1	ATCGGCTGCTGGTGTGGTCTGTGTTCTGGTTGCGGTGGCCATTTCTATCTCATTTGCC	1320
mBN336_MUC1	ATCGGCTGCTGGTGTGGTCTGTGTTCTGGTTTACCTGGCCATTTCTATCTCATTTGCC	1140
PANVAC_MUC1	TTGGCTGCTGTCACTGCTGCGCGGAAGAACTACGGGAGCTGGACATCTTTCAGCCCGG	1380
mBN336_MUC1	TTGGCTGCTGTCACTGCTGCGCGGAAGAACTACGGGAGCTGGACATCTTTCAGCCCGG	1200
PANVAC_MUC1	GATACCTACATCCTATGAGCGAGTACCCACCTACCACACCATGGGCGCTATGTGCC	1440
mBN336_MUC1	GATACCTACATCCTATGAGCGAGTACCCACCTACCACACCATGGGCGCTATGTGCC	1260
PANVAC_MUC1	CCTAGCAGTACCGATCGTAGGCCCTATGAGAAGTTTCTGCAGTTAATGTTGGCAGCAGC	1500
mBN336_MUC1	CCTAGCAGTCTGTTCCGTFAGGCCCTATGAGAAGTTTCTGCAGTTAATGTTGGCAGCTAC	1320
PANVAC_MUC1	CTCTCTTACACCAACCGAGTGGCAGCCATCTCTGCCAATTGTAG---	1548
mBN336_MUC1	CTCTCTTACACCAACCGAGTGGCAGCCATCTCTGCCAATTGTGTGA	1371

[illegible]

PANVAC_MUC1	900	ACGGTACCTCCTCTACACTCTCCAAATCAGAGCACTTCTCCAGATTGCTACTGGGGTC
mBN373_MUC1	720	ACGGTACCTCCTCTACACTCTCCAAATCAGAGCACTTCTCCAGATTGCTACTGGGGTC

PANVAC_MUC1	960	TCCTCTCTTTTCTGTGCTTTTCACATTTCAAACCTCCAGTTTAATTCCTCTCTGGAAGAT
mBN373_MUC1	780	TCCTCTCTTTTCTGTGCTTTTCACATTTCAAACCTCCAGTTTAATTCCTCTCTGGAAGAT

PANVAC_MUC1	1020	CCAGCACCGACTACTACCAAGAGCTGCAGAGACATTTCTGAAATGTTTTTCAGATT
mBN373_MUC1	840	CCAGCACCGACTACTACCAAGAGCTGCAGAGACATTTCTGAAATGTTTTTCAGATT

PANVAC_MUC1	1080	TATAACAAGGGGTTTTCTGGGCCCTTCCAATATTAAAGTTCAGGCCAGGATCTGTGGTG
mBN373_MUC1	900	TATAACAAGGGGTTTTCTGGGCCCTTCCAATATTAAAGTTCAGGCCAGGATCTGTGGTG

PANVAC_MUC1	1140	GTACAAATGACTCTGGCCTCCGAGAAGGTACCAATCAATGTCACGACGTGGAGACACAG
mBN373_MUC1	960	GTACAGTTGACTCTGGCCTCCGAGAAGGTACCAATCAATGTCACGACGTGGAGACACAG

PANVAC_MUC1	1200	TTCAATCAGTATAAAACGGAACGAGCCTCTCGATAATAACCTGACGATCTCAGACCTCAGC
mBN373_MUC1	1020	TTCAATCAGTATAAAACGGAACGAGCCTCTCGATAATAACCTGACGATCTCAGACCTCAGC

PANVAC_MUC1	1260	GTGAGTGATGCCATTTCTTCTGCCAGCTCTGGGCTGGGGTCCAGGCTGGGC
mBN373_MUC1	1080	GTGAGTGATGCCATTTCTTCTGCCAGCTCTGGGCTGGGGTCCAGGCTGGGC

PANVAC_MUC1	1320	ATCGGCTGCTGGTGCTGGTCTGTGTTCTGTTGGCTGGCCATTGCTATCTCATTTGCC
mBN373_MUC1	1140	ATCGGCTGCTGGTGCTGGTCTGTGTTCTGTTGGCTGGCCATTGCTATCTCATTTGCC

PANVAC_MUC1	1380	TTGGTGCTGTCTAGTGGCGGCGAAGAACTACGGGCAGCTGACATCTTCCAGCCGG
mBN373_MUC1	1200	TTGGTGCTGTCTAGTGGCGGCGAAGAACTACGGGCAGCTGACATCTTCCAGCCGG

PANVAC_MUC1	1440	GATACCTACCATCCTATGAGCGAGTACCCACCTACCAACCCATGGGCGGTATGTGCC
mBN373_MUC1	1260	GATACCTACCATCCTATGAGCGAGTACCCACCTACCAACCCATGGGCGGTATGTGCC

PANVAC_MUC1	1500	CCTAGCAGTACCGATCTGAGCCCTATGAGAAGTTTCTGAGAGTAAATGGTGGCAGCAGC
mBN373_MUC1	1320	CCTAGCAGTCTGTTCCGTAAGCCCTATGAGAAGTTTCTGAGTAAATGGTGGCAGCTAC

PANVAC_MUC1	1548	CTCTCTTACAAACCCAGCATGGCAGCCACTTCTGCCAACTTGAG---
mBN373_MUC1	1371	CTCTCTTACAAACCCAGCATGGCAGCCACTTCTGCCAACTTGAGTGA

Figure 4C
(cont.)

PANVAC_MUC1 MBN420_MUC1	GCTACCACAAACCCAGCCAGCAAGAGACTCCATTCTCAATTCGCCAGCCACCACCTGTGAT GCTACCACAACTCCAGCCAGCAAGAGACTCCATTCTCAATTCGCCAGCCACCACCTGTGAT ***** ACTCCTACCAACCTTGCCAGCCATAGCACCAGAGCTGATGCCAGTAGCACTCACCATAGC ACTCCTACCAACTTGCCAGCCATAGCACCAGAGCTGATGCCAGTAGCACTCACCATAGC *****	780 600
PANVAC_MUC1 MBN420_MUC1	ACGGTACCTCCTCTCAGCTCCTCCAAATCAGACGACTTCTCCCGAGTTGTCTACTGGGGTC ACGGTACCTCCTCAGCTCCTCCAAATCAGACGACTTCTCCCTCAGTTGTCTACTGGAGTC ***** TCTTTCTTTTCTGCTCTTTTCACATTTCBAACCTCCAGTTTAAATCCCTCTCTGGAGAT TCCTTTCTTTCTGCTCTTTTCACATTTCBAACCTCCAGTTTAAATTCCTCTCTGGAGAT *****	840 660
PANVAC_MUC1 MBN420_MUC1	CCGAGCACCGACTACTACCAGAGCTGCAGAGAGACATTCTGAATGTTTTCAGATT CCGAGCACCGACTACTACCAGAGCTGCAGAGAGACATTCTGAGATGTTCTTTCAGATT ***** TATAACAAGSGGGTTTTCTGGGGCTCTCCAAATTAAGTTCAGSGCCAGGATCTGTGGTG TATAACAAGGTGGATTCTTGGCTCTCTAATATTAAAGTTCCAGGCGAGGATCTGTGGTC *****	900 720
PANVAC_MUC1 MBN420_MUC1	GTACAATTGACTCTGGCTTCGGAGAGGTACCATCAATGTCCAGACGTGGAGACACAG GTACAGTTGACTCTGGCTTCAGAGAGGTACCATCAATGTCCAGACGTGGAGACACAG ***** TTCAATCAGTATBAACGGGAAGCAGCCCTCGATATACCTGACGATCTCAGACGTCAGC TTCAATCAGTATBAACGGGAAGCAGCCCTCGATATACCTGACGATCTCAGACGTCAGC *****	960 840
PANVAC_MUC1 MBN420_MUC1	GTGAGTGATGTGCCATTTCCTTCTCCAGTCTGGGGTGGGTGCCAGCTGGGCGGC GTAGTGATGTGCCATTTCCTTCTCCAGTCTGGAGTGGTGCCAGGCTGGGCG ***** ATCGCGCTGCTGGTGCTGTGTCTGTGTTCTGGTGGCTGGCCATTCTCTATCTCATGGCC ATCGCGCTGCTGGTGCTGTGTCTGTGTTCTGGTTACCTGGCCATTCTCTATCTCATGGCC *****	1020 900
PANVAC_MUC1 MBN420_MUC1	TTGGCTGTCTGTGAGTGGCGGAAAGAACTACGGGCGAGCTGGACATCTTCCAGCCCGG TTGGCTGTCTGTGAGTGGCGGAAAGAACTACGGACAGCTGGACATCTTCCAGCTCGG ***** GATACCTACCATCCTATGAGCGAGTACCCCTACCTACCAACCCATGGGGCTATGTGCC GATACCTACCATCCTATGAGCGAGTACCCCTACCTACCAACCATGGTCGCTATGTGCCA *****	1080 960
PANVAC_MUC1 MBN420_MUC1	CTAGCAGTACCGATCGTACGCCCTATGAGAGGTTTCTGCAGTAATGGTGGCAGCAGC CCTAGCAGTCTGTCCGTAGTCCCTATGAGAAAGTTCTGCAGGTAATGGTGGCAGCTAC ***** CTCTCTTACACAACCCAGCAGTGGCAGCCACTCTTGCCAACTTGTAG--- CTCTCTTACACAACCCAGCAGTGGCAGCCACTCTTGCCAACTTGTAGTGA *****	1140 1020
PANVAC_MUC1 MBN420_MUC1	TTGGCTGTCTGTGAGTGGCGGAAAGAACTACGGGCGAGCTGGACATCTTCCAGCCCGG TTGGCTGTCTGTGAGTGGCGGAAAGAACTACGGACAGCTGGACATCTTCCAGCTCGG ***** GATACCTACCATCCTATGAGCGAGTACCCCTACCTACCAACCCATGGGGCTATGTGCC GATACCTACCATCCTATGAGCGAGTACCCCTACCTACCAACCATGGTCGCTATGTGCCA *****	1200 1080
PANVAC_MUC1 MBN420_MUC1	CTAGCAGTACCGATCGTACGCCCTATGAGAGGTTTCTGCAGTAATGGTGGCAGCAGC CCTAGCAGTCTGTCCGTAGTCCCTATGAGAAAGTTCTGCAGGTAATGGTGGCAGCTAC ***** CTCTCTTACACAACCCAGCAGTGGCAGCCACTCTTGCCAACTTGTAG--- CTCTCTTACACAACCCAGCAGTGGCAGCCACTCTTGCCAACTTGTAGTGA *****	1260 1140
PANVAC_MUC1 MBN420_MUC1	TTGGCTGTCTGTGAGTGGCGGAAAGAACTACGGGCGAGCTGGACATCTTCCAGCCCGG TTGGCTGTCTGTGAGTGGCGGAAAGAACTACGGACAGCTGGACATCTTCCAGCTCGG ***** GATACCTACCATCCTATGAGCGAGTACCCCTACCTACCAACCCATGGGGCTATGTGCC GATACCTACCATCCTATGAGCGAGTACCCCTACCTACCAACCATGGTCGCTATGTGCCA *****	1320 1140
PANVAC_MUC1 MBN420_MUC1	CTAGCAGTACCGATCGTACGCCCTATGAGAGGTTTCTGCAGTAATGGTGGCAGCAGC CCTAGCAGTCTGTCCGTAGTCCCTATGAGAAAGTTCTGCAGGTAATGGTGGCAGCTAC ***** CTCTCTTACACAACCCAGCAGTGGCAGCCACTCTTGCCAACTTGTAG--- CTCTCTTACACAACCCAGCAGTGGCAGCCACTCTTGCCAACTTGTAGTGA *****	1380 1200
PANVAC_MUC1 MBN420_MUC1	TTGGCTGTCTGTGAGTGGCGGAAAGAACTACGGGCGAGCTGGACATCTTCCAGCCCGG TTGGCTGTCTGTGAGTGGCGGAAAGAACTACGGACAGCTGGACATCTTCCAGCTCGG ***** GATACCTACCATCCTATGAGCGAGTACCCCTACCTACCAACCCATGGGGCTATGTGCC GATACCTACCATCCTATGAGCGAGTACCCCTACCTACCAACCATGGTCGCTATGTGCCA *****	1440 1260
PANVAC_MUC1 MBN420_MUC1	CTAGCAGTACCGATCGTACGCCCTATGAGAGGTTTCTGCAGTAATGGTGGCAGCAGC CCTAGCAGTCTGTCCGTAGTCCCTATGAGAAAGTTCTGCAGGTAATGGTGGCAGCTAC ***** CTCTCTTACACAACCCAGCAGTGGCAGCCACTCTTGCCAACTTGTAG--- CTCTCTTACACAACCCAGCAGTGGCAGCCACTCTTGCCAACTTGTAGTGA *****	1500 1320
PANVAC_MUC1 MBN420_MUC1	CTCTCTTACACAACCCAGCAGTGGCAGCCACTCTTGCCAACTTGTAG--- CTCTCTTACACAACCCAGCAGTGGCAGCCACTCTTGCCAACTTGTAGTGA *****	1548 1371

Figure 5

PANVAC_CEA mBN373/420_CEA	atggagtcctccctcgccctccacagatggtgcatccctggcagaggctcctgctc atggagtcctccctcgccctccacagatggtgcatccctggcagaggctcctgctc ***** *****	60 60
PANVAC_CEA mBN373/420_CEA	acagctcaactctataactctctggaaacccgccacactgccaagctcactattgaatcc acagctcaactctataactctctggaaacccgccacactgccaagctcactattgaatcc ***** *****	120 120
PANVAC_CEA mBN373/420_CEA	acgcggttcaatgtcgcagaggggaaggaggtgcttctacttgtccacaatctgccccag acgcggttcaatgtcgcagaggggaaggaggtgcttctacttgtccacaatctgccccag ***** *****	180 180
PANVAC_CEA mBN373/420_CEA	catctctttgtgtacagctggtacaaaggtgaaagagtggaatggcacaacgtcaaatata catctctttgtgtacagctggtacaaaggtgaaagagtggaatggcacaacgtcaaatata ***** *****	240 240
PANVAC_CEA mBN373/420_CEA	ggatatgtaataaggaactcaacaagctaccccgcccgccatcacagtgggtcgagagata ggatatgtaataaggaactcaacaagctaccccgcccgccatcacagtgggtcgagagata ***** *****	300 300
PANVAC_CEA mBN373/420_CEA	atataccccaatgcataccctgctgatccagaacatcatccagaatgacacaggattctac atataccccaatgcataccctgctgatccagaacatcatccagaatgacacaggattctac ***** *****	360 360
PANVAC_CEA mBN373/420_CEA	accctacacgtcataaaagtcagatctgtgaaatgaagaagaactggccagttccgggta accctacacgtcataaaagtcagatctgtgaaatgaagaagaactggccagttccgggta ***** *****	420 420
PANVAC_CEA mBN373/420_CEA	taccggaaactccctaagccttctattagctccaataataagcctgtcgaaagacaaa taccgtgaactccctaagccttctattagctccaataataagcctgtcgaaagacaaa ***** *****	480 480
PANVAC_CEA mBN373/420_CEA	gatgcggtcgcttttacatgcgagcccgaaactcaagaogcaacatatctctgtgggtg gatgcggtcgctttcacatgcgagcccgaaactcaagaogcaacatatctctgtgggtg ***** *****	540 540
PANVAC_CEA mBN373/420_CEA	aacaaccagtcctgcctgtgtccctagactccaactcagcaacggaaatagaaactctg aacaaccagtcctgcctgtgtccctagactccaactcagcaacggaaatagaaactctg ***** *****	600 600
PANVAC_CEA mBN373/420_CEA	acctgttttaacgtgaccaggaacgacacagcagctacaatgcgaaaccccaaatcca acctgttttaacgtgaccaggaacgacacagcagctacaatgcgaaaccccaaatcca ***** *****	660 660

Figure 5
(cont.)

PANVAC_CEA mBN373/420_CEA	gtcagcgccaggaggtctgtattcagtgattctcaacgtgtctttacggacccgagtgtctct gtcagcgccaggaggtctgtattcagtgattctcaacgtgtctttacggacccgagtgtctct *****	720 720
PANVAC_CEA mBN373/420_CEA	acaatcagcccttaaacacaaagtatatagatcaggggaaaaatctgaatctgagctgtcat acaatcagcccttaaacacaaagtatatagatcaggggaaaaatctgaatctgagctgtcat *****	780 780
PANVAC_CEA mBN373/420_CEA	gcgctagaaatctctccgcgccaatacacagctggtttgtcaatggcacctttccaacagtcct gcgctagaaatctctccgcgccaatacacagctggtttgtcaatggcacctttccaacagtcct *****	840 840
PANVAC_CEA mBN373/420_CEA	accaggaactgttcaattcccaatattacogtgaacaaatagtgatcctacacagtgccaa accaggaactgttcaattcccaatattacogtgaacaaatagtgatcctacacagtgccaa *****	900 900
PANVAC_CEA mBN373/420_CEA	gctcacaaatagcgacacccgactcaacccgcacacacccgtgacgaogattaccgtgtatgag gctcacaaatagcgacacccgactcaacccgcacacacccgtgacgaogattaccgtgtatgag *****	960 960
PANVAC_CEA mBN373/420_CEA	ccacaaaaaccattcaataactagtaacaattctaacccagttgaggatgaggacgcagtt ccacaaaaaccattcaataactagtaacaattctaacccagttgaggatgaggacgcagtt *****	1020 1020
PANVAC_CEA mBN373/420_CEA	gcattaactgtgagccagagattcaaaaataccacttatttatgggtgggtcaataaccaa gcattaactgtgagccagagattcaaaaataccacttatttatgggtgggtcaataaccaa *****	1080 1080
PANVAC_CEA mBN373/420_CEA	agttgccggttagccacgcttgacgttgtctaatgataaacgcacacattgacactcctg agttgccggttagccacgcttgacgttgtctaatgataaacgcacacattgacactcctg *****	1140 1140
PANVAC_CEA mBN373/420_CEA	tccgttactcgcgaatgatgtaggaccttatgagtggtggcattcagaatgaattatccgtt tccgttactcgcgaatgatgtaggaccttatgagtggtggcattcagaatgaattatccgtt *****	1200 1200
PANVAC_CEA mBN373/420_CEA	gateactcgcgacctgttatccttaagtgtttgtatggccagacgacccaactatatct gateactcgcgacctgttatccttaagtgtttgtatggccagacgacccaactatatct *****	1260 1260
PANVAC_CEA mBN373/420_CEA	ccatcataacacctactacagtcocggcggtgaactgagcctttttgcatgagcagcatcc ccatcataacacctactacagtcocggcggtgaactgagcctttttgcatgagcagcatcc *****	1320 1320

PANVAC_CEA	aaccocctgcacgtaactcctgctgattgatggaaacaattcagcagcactactcaagag	1380
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PANVAC_CEA	ttatttataagcaacataactgagagaaacagcggactctatacttgcaggcgaataaac	1440
mBN373/420_CEA	ttatttataagcaacataactgagagaaacagcggactctatacttgcaggcgaataaac	1440
PANVAC_CEA	tcagccagtggtcacagcaggactaacgttaaaacaataaactgtttccggcggagctgcoc	1500
mBN373/420_CEA	tcagccagtggtcacagcaggactaacgttaaaacaataaactgtttccggcggagctgcoc	1500
PANVAC_CEA	aagccctccatctccagcaacaactccaaacccgtggaggacaaggaatgctgtggccttc	1560
mBN373/420_CEA	aagccctccatctccagcaacaactccaaacccgtggaggacaaggaatgctgtggccttc	1560
PANVAC_CEA	acctgtgaacctgaggtcagcaacaacactacctgtggtggtaaatggtcagagcctc	1620
mBN373/420_CEA	acctgtgaacctgaggtcagcaacaacactacctgtggtggtaaatggtcagagcctc	1620
PANVAC_CEA	ccagtcagtcocaggctgcagctgtccaatggcaacaggacccctcactctattcaatgtc	1680
mBN373/420_CEA	ccagtcagtcocaggctgcagctgtccaatggcaacaggacccctcactctattcaatgtc	1680
PANVAC_CEA	acaagaaatgacgcaagagcctatgtatgtggaaatccagaaatcagtgagtgcaaacgcg	1740
mBN373/420_CEA	acaagaaatgacgcaagagcctatgtatgtggaaatccagaaatcagtgagtgcaaacgcg	1740
PANVAC_CEA	agtgaaccagtcacccctggatgtccctctatgggcgggacaccccatcattcccccca	1800
mBN373/420_CEA	agtgaaccagtcacccctggatgtccctctatgggcgggacaccccatcattcccccca	1800
PANVAC_CEA	gactgtcttacccttcgggagcggacctcaacctctcctgcacctggcgccttaaccca	1860
mBN373/420_CEA	gactgtcttacccttcgggagcggacctcaacctctcctgcacctggcgccttaaccca	1860
PANVAC_CEA	tcccgccagctattcttggcgatcaaatgggataccggcagcaacacacaagaattctcttt	1920
mBN373/420_CEA	tcccgccagctattcttggcgatcaaatgggataccggcagcaacacacaagaattctcttt	1920
PANVAC_CEA	atcgccaaaatcacgccc aaaataaacgggacctatgcctgttttgcctctaaattggct	1980
mBN373/420_CEA	atcgccaaaatcacgccc aaaataaacgggacctatgcctgttttgcctctaaattggct	1980

PANVAC_CEA mBN373/420_CEA	actggcgcgaataattccatagtagtcaagagcatcacagtctctgcatcttggaacttctcct actggcgcgaataattccatagtagtcaagagcatcacagtctctgcatcttggaacttctcct *****	2040 2040
PANVAC_CEA mBN373/420_CEA	ggtctctcagctggggccactgtcggcatcatgattggagtgctggtgggggttgctctg ggtctctcagctggagccactgtcggcatcatgattggagtgctggtgggggttgctctg *****	2100 2100
PANVAC_CEA mBN373/420_CEA	atatag atatag *****	2106 2106

Figure 5
(cont.)

PANVAC_B7-1	atgggccacacagcaggaggaggaacatcaccaatcccaagtgcctcaactcaatctttt	60
mEN373/420_B7-1	atgggacacacaggaagggacagcagccatcccaatgtccctcaactgaactcttt	60
PANVAC_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
mEN373/420_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
PANVAC_B7-1	cagctcttggtgcgtggtgctttctcactctgttcagggtgttatccacgagcaaga	120
mEN373/420_B7-1	cagctcttggtgcgtggtgctgtcccaactctgtccggagtgatccacgagcaaga	120
PANVAC_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
mEN373/420_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
PANVAC_B7-1	gaagtgaagaagtggaacgctgcctgtggtcacaaatgtttctgttgaaagcgtggca	180
mEN373/420_B7-1	gagctcaagaagtcgcacactagctgcgtgggcacaaatgttcgctggaggaaactggct	180
PANVAC_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
mEN373/420_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
PANVAC_B7-1	caaatcgcctctactgcgaagaagagagaaaatggtgcactatgattctgtcagagac	240
mEN373/420_B7-1	caacacgcgactctactgcgaagaagaagaaatggtgtactcacatgattctcggcgac	240
PANVAC_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
mEN373/420_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
PANVAC_B7-1	atgaatatggtcccgtagtacaagacgcgaccatctttgatatacctaataaactctcc	300
mEN373/420_B7-1	atgaacatctgctctagtcagaagacgcgacatctcttgacatcaacaacatctgac	300
PANVAC_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
mEN373/420_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
PANVAC_B7-1	atttgatctcgtctgtgcgccattctacgagggcacatcagagtggtgtgtcttgaag	360
mEN373/420_B7-1	attcgtatctcgtctgtgagcctctccacgagggaactacagtggtggtgctgaag	360
PANVAC_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
mEN373/420_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
PANVAC_B7-1	tatgaanaagacgcttcaagcggggaacacactgctgaagtgaogttatcagtcacaagt	420
mEN373/420_B7-1	taacgagaagacgcttcaaacgcgagcacctgcgcgagttcacactgcctgaaggca	420
PANVAC_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
mEN373/420_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
PANVAC_B7-1	gaattccctacacatgatatctatgactttgaaattcccaactctcaattatgagaagata	480
mEN373/420_B7-1	gaattcccaacacacagatcagcagactgcagatgcagctaccagcaacactccggagat	480
PANVAC_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
mEN373/420_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
PANVAC_B7-1	atttgctcaactcgtgaggtttccagagcctcacctctcgtgttggaatatgagaa	540
mEN373/420_B7-1	atcgtgagcactcgtcggaggtctccagagctcacctgagtggtgcgagaacgcgcaa	540
PANVAC_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
mEN373/420_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
PANVAC_B7-1	gaattaatggcatcaacacacagtttcccaagatcctgaaactgcagctctatgctgtt	600
mEN373/420_B7-1	gaactcaacgcatacaacatcgtgtccagagcaacccgagacagactctatcgtgtg	600
PANVAC_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
mEN373/420_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
PANVAC_B7-1	agcagcaactggatttcaatatgacaccccaaccaggttcatgtctcatcaagtat	660
mEN373/420_B7-1	agcagatagctggactcgaactgcacaaatcacaggtttatgtgcctatcaagtac	660
PANVAC_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
mEN373/420_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
PANVAC_B7-1	ggacatttaagtgtaatcgaactcgaactgcggaatacaaccaagcaagagcatttctct	720
mEN373/420_B7-1	ggccactctgagtgtaatcgaactcgaactgcggaatacaaccaagcaagagcattctcca	720
PANVAC_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
mEN373/420_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
PANVAC_B7-1	gataactcgtccatcctcgtggcattacctaatctcagtaaatggaattttcgtgata	780
mEN373/420_B7-1	gacaactcgtccctcctgggtctacacactgattagcgtgaatgcgactctcgtgatac	780
PANVAC_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
mEN373/420_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
PANVAC_B7-1	tgtcgtcactcactgctttgtcccaactgcgcagagaggaaggaaggaagagattg	840
mEN373/420_B7-1	tgtcgtctgaactactgcttgcctccagatgcgggagcgagagagaacagagattg	840
PANVAC_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
mEN373/420_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
PANVAC_B7-1	agaagggaagtgtacgcctgtataa	867
mEN373/420_B7-1	agaagggaactcgtgagcctgtgtga	867
PANVAC_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	
mEN373/420_B7-1	*****.*****.*****.*****.*****.*****.*****.*****	

[illegible]

PANVAC_ICAM-1	gagcagcagggccaccacagcggctgcagctgtgcagtaatactctggggaaacacagcgcagcagcag 900
mBN373/420_ICAM-1	gagcgtgaagccacacagagctgcacatgcctggcgtgattctgggcaacacagcgcagcagaa 900

PANVAC_ICAM-1	acaactgcagacagtgcacactatcacagctttccggcgcgcacacacacacacacacacacac 960
mBN373/420_ICAM-1	acctgcagacagctcacactatcagcttccctgcacctaatgtgatcctcagcaaacgc 960

PANVAC_ICAM-1	gagctctcagaadggaccagaggtgcacagtgaagtgtgaggccacacacacacacacacacac 1020
mBN373/420_ICAM-1	gagctgcagagggcactgaagtgcacgtgaaatgcgagggccacacacacacacacacacac 1020

PANVAC_ICAM-1	acgctgaatgggttccagcccacgcacatggccacagggccacacacacacacacacacacacac 1080
mBN373/420_ICAM-1	acctgcgaacggctgcagcccacgcacatggccacacagggccacacacacacacacacacac 1080

PANVAC_ICAM-1	acccacagagcaaacgggcagcgtctcctctctgcacacctggaggtggccgcgcgcgcgcgcgc 1140
mBN373/420_ICAM-1	acacccagagataacggccgctctctcctcgcagcgtacacctgcgaagtggccgcgcgcgcgc 1140

PANVAC_ICAM-1	cttatcacaaagaaacacagaccgggagctcctctcctgtatggcccccgcactgcagcagcag 1200
mBN373/420_ICAM-1	ctgtatccacaagaacacacagacagagagctgcagtgagctgcgtacggccctagactggagcag 1200

PANVAC_ICAM-1	aggatattgcctgggaaactggcaogtggccagaaaatccccagcagactccaatgtgccag 1260
mBN373/420_ICAM-1	agagacgtccacggcaactggcaactggcccgagaaactcccagcagacacccatgtgccag 1260

PANVAC_ICAM-1	gctctgggggaacccattggcccgagctcaagttgtctaaaggatggcaactttcccactgcc 1320
mBN373/420_ICAM-1	gctctgggggaacccattgcagagctgcagagtgagctgcctgcgaagcgcacacctcctctgcc 1320

PANVAC_ICAM-1	atcgggggaatcagtgactgcactgcagatcttgagggcacctacctgtcgggcacagc 1380
mBN373/420_ICAM-1	atcgggcgagtcctgcagcagtgacacgggaactctgggaaggcaactacctgtgcagagccaga 1380

PANVAC_ICAM-1	agcactcaaggggaggtcacccgcgaggtgcacogtgaatgtgctctcccccggtatagc 1440
mBN373/420_ICAM-1	tcacacagggcgcgaagtgcacacgggaggtcacogtgaatgtgctgcacctgcgtacagc 1440

PANVAC_ICAM-1	attgtcactcaactcagctggtagacgcgcagctcataatggcagctgcagggcctcagcagc 1500
mBN373/420_ICAM-1	atcgtgcatacactcagcgtgctgcgtgcagctgtgactcagtgatcagtggcacagcgcgactcagcaca 1500

PANVAC_ICAM-1	tacctcttaaacccgcagcggagatcaagaataacacagactacaacagggcccaaaaaggc 1560
mBN373/420_ICAM-1	tacctgtacaacccgcagcggagatcaagaagatacaggtcagcagggccacagggcccaaaaaggc 1560

PANVAC_ICAM-1	acccccatgaacccgaacacacagcgcacgcacacacacacacacacacacacacacacacacac 1599
mBN373/420_ICAM-1	acacccatgaagcccaaccccgagccacacacacacacacacacacacacacacacacacacacacacac 1599

PANVAC_LFA-3 MEN373/420	atggttgctggagcagcgcgggcgggcgcctgggggtcctcagcgtggtctgctgctgctgctg atggttgctgctctatgacggagagagccctgggagtgctgtctgctgctgctgctgctg ***** : *.**.*.***.*.*****.*.*** : ** ** *****	60 60
PANVAC_LFA-3 MEN373/420	cactgctttggtttcatcagctgtttttcccaacaataataggtgtgtgtgtgtatgggaat cactgcttggcttcacagctgtcttcagccagcagatctacggagtggtctctacggcaac ***** ** ***** ** : **.*.***.*.***.*.*** ** ** ** *	120 120
PANVAC_LFA-3 MEN373/420	gtaactttccatgtaccaagaactgtgctcttaaaagaggtcctctggaaaaacaaaaag gtgacctccacgtgccagcaactgtgctctgaaagagtgctctgtgaaagaaacagag **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **	180 180
PANVAC_LFA-3 MEN373/420	gataagttgcagaactggaaaattctgaattcagagctttctcatcttttaaaaatagg gacaaggtccagagctggagaaacagcgaggtcccggtccttcagcaggttcaagacogg ** **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **	240 240
PANVAC_LFA-3 MEN373/420	gtttatttagacactgtgcaggtagcctcaetctatctacaacttaacatcatcatgaa gtgtacctggacacogtgtccggcagctgacacatctacaacctgacacagcagcagag ** **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **	300 300
PANVAC_LFA-3 MEN373/420	gatgagtataaaggaatcgccaaatattactgtataccatgaagtctttcttttatgtg gacgagtacgagatggaagccctacatcacccagacccatgaagtctttctgtacgtg ** ***** **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **	360 360
PANVAC_LFA-3 MEN373/420	cttgagctctctccatctccacactaaactgtgtgaattgactaatgggaagattgaagtc ctggaaagcctgccagccacacactgaactgtgacctgacccacggctccatcgaggtg ** **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **	420 420
PANVAC_LFA-3 MEN373/420	caatgcattataccagagcattacaacagccatcgaggactataatgtactcatggtgat cagtgcatgattcccgagcactacaactccacagaggctgatcatgtactcttgggac **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **	480 480
PANVAC_LFA-3 MEN373/420	tgctctatggagcaatgtaaacgttaactcaaccagtatatatatttaagatggaaaatgat tgccctatggaaacagtgcaagcgcaacagcagcagcatctactcaagatggagacagac **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **	540 540
PANVAC_LFA-3 MEN373/420	cttcacaaaaaatcacagtactcttagcaatccattatttaatacaacatcatcaatc ctccctcagagatccagtgcaactgaggaatccactgttcaacacacacacccagcacc ** **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **	600 600
PANVAC_LFA-3 MEN373/420	attttgacaacctgtatcccaagcagcgtcattcaagcacagatatgccaattataccc atcctgacaacctgtattccagcagtggtggccacagcagacagacagatacgcctgaccc **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **	660 660
PANVAC_LFA-3 MEN373/420	ataccattagcagtaattacaacatgtattgtgctgtatatgaatggtattctgaaatgt attccactggcgtgatccacatgcatcgtgtgctgtacatgaacggcatcctgaagtgc **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **	720 720
PANVAC_LFA-3 MEN373/420	gacagaaaaaccagacagaaaccaactccaatga gaccggaagcccgaccggaacacagcaatga **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **.*.*** **	753 753

Figure 8

Figure 9
mBN336

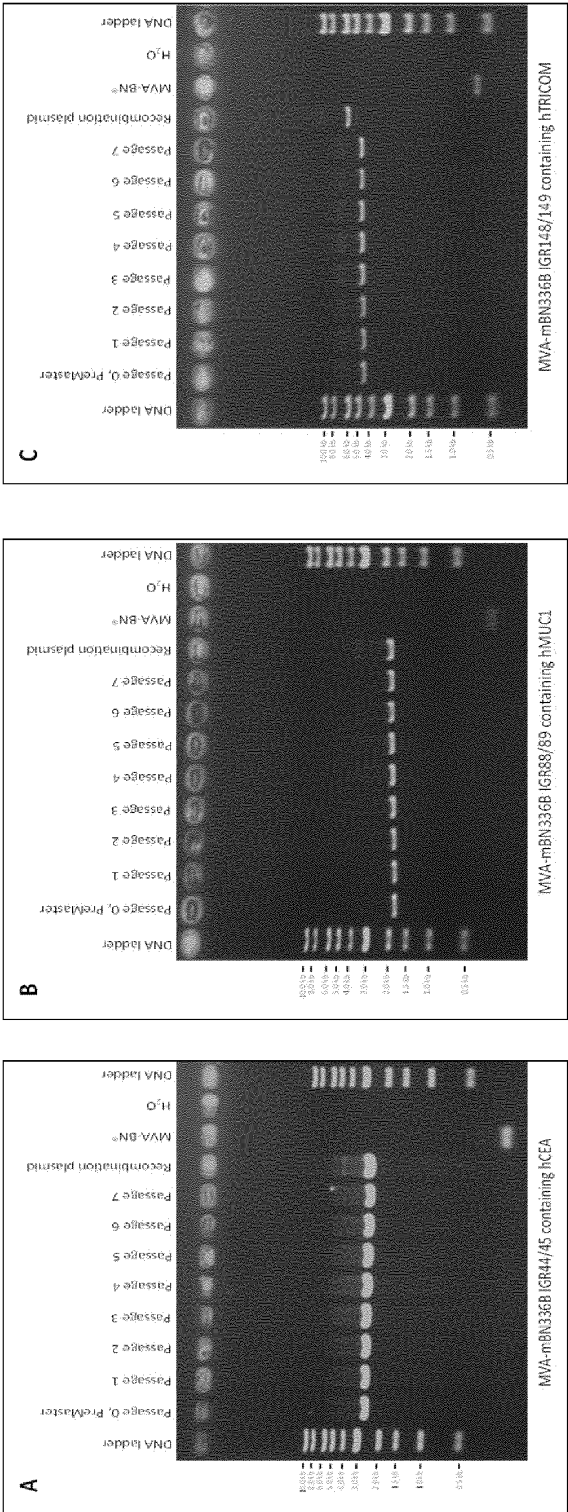


Figure 10

mBN336

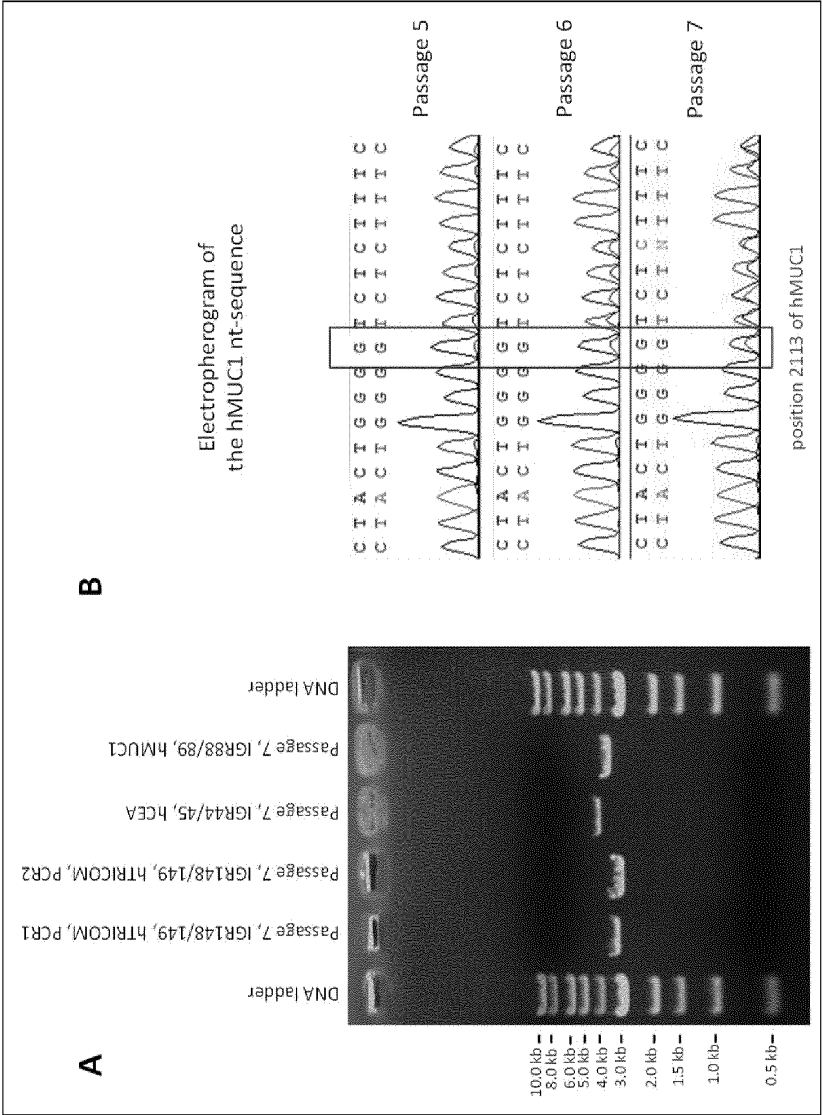


Figure 11

mBN373

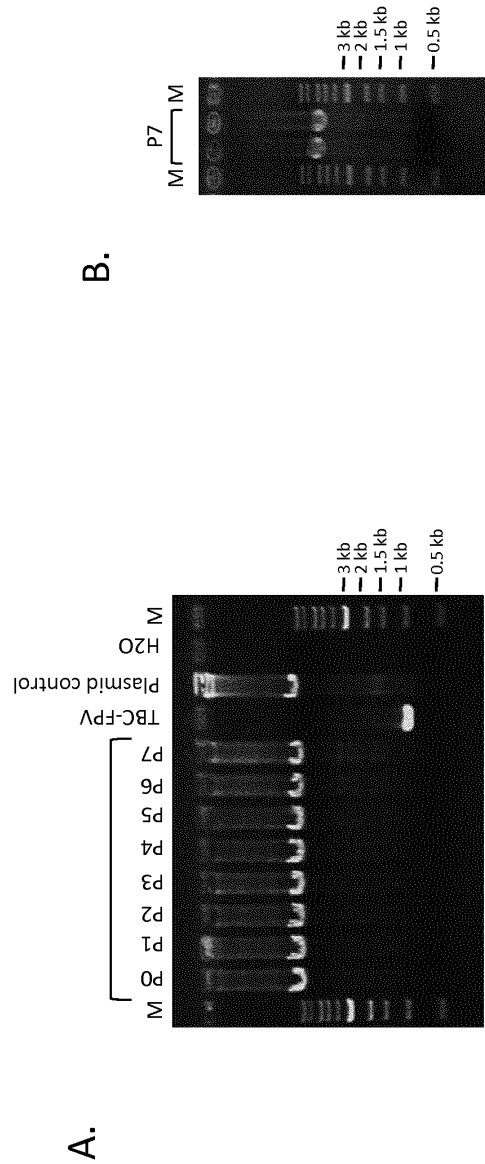


Figure 12

