

Identity 1 10 20 30 40 50

B26 TTGGGGTCTAT GGAGAGCACG ACAA CAAGGA AA ACTACAGC TG TAAAATGG
 LPCoLN TTGGGGTCTAT GGAGAGCACG ACAA CAAGGA AA ACTACAGC TG TAAAATGG
 DE177 TTGGGGTCTAT GGAGAGCACG ATAA CAAGGA AA ACTACAGC TG TAAAATGG
 N16 TTGGGGTCTAT GGAGAGCACG ATAA CAAGGA AA ACTACAGC TG TAAAATGG
 AR39 TTGGGGTCTAT GGAGAGCACG ATAA CAAGGA AA ACTACAGC TG TAAAATGG
 CWL029 TTGGGGTCTAT GGAGAGCACG ATAA CAAGGA AA ACTACAGC TG TAAAATGG
 J138 TTGGGGTCTAT GGAGAGCACG ATAA CAAGGA AA ACTACAGC TG TAAAATGG
 TW183 TTGGGGTCTAT GGAGAGCACG ATAA CAAGGA AA ACTACAGC TG TAAAATGG
 TOR1 TTGGGGTCTAT GGAGAGCACG ATAA CAAGGA AA ACTACAGC TG TAAAATGG
 WA97001 TTGGGGTCTAT GGAGAGCACG ATAA CAAGGA AA ACTACAGC TG TAAAATGG
 1979 TTGGGGTCTAT GGAGAGCACG ATAA CAAGGA AA ACTACAGC TG TAAAATGG
 SH511 TTGGGGTCTAT GGAGAGCACG ATAA CAAGGA AA ACTACAGC TG TAAAATGG

Identity 60 70 80 90 100





B26 GTAAA CAATG TTCCTACGTA TCTGGGAACC TTAGGAGGAG ATGCTTCTAC
 LPCoLN GTAAA CAATG TTCCTACGTA TCTGGGAACC TTAGGAGGAG ATGCTTCTAC
 DE177 GTAAATAATG TTCCTACGTA TCTGGGAACC TTAGGAGGAG ATGCTTCTAC
 N16 GTAAA CAATG TTCCTACGTA TCTGGGAACC TTAGGAGGAG ATGCTTCTAC
 AR39 GTAAATAATG TTCCTACGTA TCTGGGAACC TTAGGAGGAG ATGCTTCTAC
 CWL029 GTAAATAATG TTCCTACGTA TCTGGGAACC TTAGGAGGAG ATGCTTCTAC
 J138 GTAAATAATG TTCCTACGTA TCTGGGAACC TTAGGAGGAG ATGCTTCTAC
 TW183 GTAAATAATG TTCCTACGTA TCTGGGAACC TTAGGAGGAG ATGCTTCTAC
 TOR1 GTAAATAATG TTCCTACGTA TCTGGGAACC TTAGGAGGAG ATGCTTCTAC
 WA97001 GTAAATAATG TTCCTACGTA TCTGGGAACC TTAGGAGGAG ATGCTTCTAC
 1979 GTAAATAATG TTCCTACGTA TCTGGGAACC TTAGGAGGAG ATGCTTCTAC
 SH511 GTAAATAATG TTCCTACGTA TCTGGGAACC TTAGGAGGAG ATGCTTCTAC






Identity 110 120 130 140 150






B26 AGGTC TTTAT ATTTCTGGAG ACGGCACCGT GATTGTAGGT GCGGCAAATA
 LPCoLN AGGTC TTTAT ATTTCTGGAG ACGGCACCGT GATTGTAGGT GCGGCAAATA
 DE177 AGGTC TTTAT ATTTCTGGAG ACGGCACCGT GATTGTAGGT GCGGCAAATA
 N16 AGGTC TTTAT ATTTCTGGAG ACGGCACCGT GATTGTAGGT GCGGCAAATA
 AR39 AGGTC TTTAT ATTTCTGGAG ACGGCACCGT GATTGTAGGT GCGGCAAATA
 CWL029 AGGTC TTTAT ATTTCTGGAG ACGGCACCGT GATTGTAGGT GCGGCAAATA
 J138 AGGTC TTTAT ATTTCTGGAG ACGGCACCGT GATTGTAGGT GCGGCAAATA
 TW183 AGGTC TTTAT ATTTCTGGAG ACGGCACCGT GATTGTAGGT GCGGCAAATA
 TOR1 AGGTC TTTAT ATTTCTGGAG ACGGCACCGT GATTGTAGGT GCGGCAAATA
 WA97001 AGGTC TTTAT ATTTCTGGAG ACGGCACCGT GATTGTAGGT GCGGCAAATA
 1979 AGGTC TTTAT ATTTCTGGAG ACGGCACCGT GATTGTAGGT GCGGCAAATA
 SH511 AGGTC TTTAT ATTTCTGGAG ACGGCACCGT GATTGTAGGT GCGGCAAATA






Identity 160 170 180 190 200

B26 CAGCAA CTGT AACCAATGGG AATCAGGAAT CCCACGCCTA TATGTATAAA
 LPCoLN CAGCAA CTGT AACCAATGGG AATCAGGAAT CCCACGCCTA TATGTATAAA
 DE177 CAGCAA CTGT AACCAATGGG AATCAGGAAT CCCACGCCTA TATGTATAAA
 N16 CAGCAA CTGT AACCAATGGG AATCAGGAAT CCCACGCCTA TATGTATAAA
 AR39 CAGCAA CTGT AACCAATGGG AATCAGGAAT CCCACGCCTA TATGTATAAA
 CWL029 CAGCAA CTGT AACCAATGGG AATCAGGAAT CCCACGCCTA TATGTATAAA
 J138 CAGCAA CTGT AACCAATGGG AATCAGGAAT CCCACGCCTA TATGTATAAA
 TW183 CAGCAA CTGT AACCAATGGG AATCAGGAAT CCCACGCCTA TATGTATAAA
 TOR1 CAGCAA CTGT AACCAATGGG AATCAGGAAT CCCACGCCTA TATGTATAAA
 WA97001 CAGCAA CTGT AACCAATGGG AATCAGGAAT CCCACGCCTA TATGTATAAA
 1979 CAGCAA CTGT AACCAATGGG AATCAGGAAT CCCACGCCTA TATGTATAAA
 SH511 CAGCAA CTGT AACCAATGGG AATCAGGAAT CCCACGCCTA TATGTATAAA

	210	220	230	240	250
Identity					
B26	GATAACCAAA	TGAAAGATT	AGGAACTTTA	GGAGGGGCGA	ATTCTTCAGC
LPCoLN	GATAACCAAA	TGAAAGATT	AGGAACTTTA	GGAGGGGCGA	ATTCTTCAGC
DE177	GATAACCAAA	TGAAAGATT	AGGAACTTTA	GGAGGGGCGA	ATTCTTCAGC
N16	GATAACCAAA	TGAAAGATT	AGGAACTTTA	GGAGGGGCGA	ATTCTTCAGC
AR39	GATAACCAAA	TGAAAGATTG	A-----	-----	-----
CWL029	GATAACCAAA	TGAAAGATTG	A-----	-----	-----
J138	GATAACCAAA	TGAAAGATTG	A-----	-----	-----
TW183	GATAACCAAA	TGAAAGATTG	A-----	-----	-----
TOR1	GATAACCAAA	TGAAAGATTG	AGGAACTTTA	GGAGGGGCGA	ATTCTTCAGC
WA97001	GATAACCAAA	TGAAAGATTG	AGGAACTTTA	GGAGGGGCGA	ATTCTTCAGC
1979	GATAACCAAA	TGAAAGATTG	AGGAACTTTA	GGAGGGGCGA	ATTCTTCAGC
SH511	GATAACCAAA	TGAAAGATTG	AGGAACTTTA	GGAGGGGCGA	ATTCTTCAGC

	260	270	280	290	300
Identity					
B26	AACTGGAGTT	TCTTCAGACG	GTTCTGTGAT	TGTTGGTCAG	GCGCAGACAG
LPCoLN	AACTGGAGTT	TCTTCAGACG	GTTCTGTGAT	TGTTGGTCAG	GCGCAGACAG
DE177	AACTGGAGTT	TCTTCAGACG	GTTCTGTGAT	TGTTGGTCAG	GCGCAGACAG
N16	AACTGGAGTT	TCTTCAGACG	GTTCTGTGAT	TGTTGGTCAG	GCGCAGACAG
AR39	-----	-----	-----	-----	-----
CWL029	-----	-----	-----	-----	-----
J138	-----	-----	-----	-----	-----
TW183	-----	-----	-----	-----	-----
TOR1	AACTGGAGTT	TCTTCAGACG	GTTCTGTGAT	TGTTGGTCAG	GCGCAGACAG
WA97001	AACTGGAGTT	TCTTCAGACG	GTTCTGTGAT	TGTTGGTCAG	GCGCAGACAG
1979	AACTGGAGTT	TCTTCAGACG	GTTCTGTGAT	TGTTGGTCAG	GCGCAGACAG
SH511	AACTGGAGTT	TCTTCAGACG	GTTCTGTGAT	TGTTGGTCAG	GCGCAGACAG

	310	320	330	340	350
Identity					
B26	CCGATAAATC	CGTGCATGCT	TTTCAATACT	ATAATGGTGA	GATGAAAGAT
LPCoLN	CCGATAAATC	CGTGCATGCT	TTTCAATACT	ATAATGGTGA	GATGAAAGAT
DE177	CCGATAAATC	CGTGCATGCT	TTTCAATACT	ATAATGGTGA	GATGAAAGAT
N16	CCGATAAATC	CGTGCATGCT	TTTCAATACT	ATAATGGTGA	GATGAAAGAT
AR39	-----	-----	-----	-----	-ATGAAAGAT
CWL029	-----	-----	-----	-----	-ATGAAAGAT
J138	-----	-----	-----	-----	-ATGAAAGAT
TW183	-----	-----	-----	-----	-ATGAAAGAT
TOR1	CCGATAAATC	CGTGCATGCT	TTTCAATACT	ATAATGGTGA	GATGAAAGAT
WA97001	CCGATAAATC	CGTGCATGCT	TTTCAATACT	ATAATGGTGA	GATGAAAGAT
1979	CCGATAAATC	CGTGCATGCT	TTTCAATACT	ATAATGGTGA	GATGAAAGAT
SH511	CCGATAAATC	CGTGCATGCT	TTTCAATACT	ATAATGGTGA	GATGAAAGAT

	360	370	380	390	400
Identity					
B26	TTGGGGACTC	TTGGGGGTAC	GCTCTTCTACA	GCAAAAACAG	TGTCCCAGAG
LPCoLN	TTGGGGACTC	TTGGGGGTAC	GCTCTTCTACA	GCAAAAACAG	TGTCCCAGAG
DE177	TTGGGGACTC	TTGGGGGTAC	CTCTTCTACA	GCAAAAACAG	TGTCCCAGAG
N16	TTGGGGACTC	TTGGGGGTAC	GCTCTTCTACA	GCAAAAACAG	TGTCCCAGAG
AR39	TTGGGGACTC	TTGGGGGTAC	CTCTTCTACA	GCAAAAACAG	TGTCCCAGAG
CWL029	TTGGGGACTC	TTGGGGGTAC	CTCTTCTACA	GCAAAAACAG	TGTCCCAGAG
J138	TTGGGGACTC	TTGGGGGTAC	CTCTTCTACA	GCAAAAACAG	TGTCCCAGAG
TW183	TTGGGGACTC	TTGGGGGTAC	CTCTTCTACA	GCAAAAACAG	TGTCCCAGAG
TOR1	TTGGGGACTC	TTGGGGGTAC	CTCTTCTACA	GCAAAAACAG	TGTCCCAGAG
WA97001	TTGGGGACTC	TTGGGGGTAC	CTCTTCTACA	GCAAAAACAG	TGTCCCAGAG
1979	TTGGGGACTC	TTGGGGGTAC	CTCTTCTACA	GCAAAAACAG	TGTCCCAGAG
SH511	TTGGGGACTC	TTGGGGGTAC	CTCTTCTACA	GCAAAAACAG	TGTCCCAGAG

410 420 430 440 450

Identity

B26 TGGTAAAGTG ATCATGGGTA GATCACAAAT TGCTGATGGC AGTTGGCACG
 LPCoLN TGGTAAAGTG ATCATGGGTA GATCACAAAT TGCTGATGGC AGTTGGCACG
 DE177 TGGTAAAGTG ATCATGGGTA GATCACAAAT TGCTGATGGC AGTTGGCACG
 N16 TGGTAAAGTG ATC**G**TGGGTA GATCACAAAT T**T**CTGATGGC AGTTGGCACG
 AR39 TGGTAAAGTG ATCATGGGTA GATCACAAAT TGCTGATGGC AGTTGGCACG
 CWL029 TGGTAAAGTG ATCATGGGTA GATCACAAAT TGCTGATGGC AGTTGGCACG
 J138 TGGTAAAGTG ATCATGGGTA GATCACAAAT TGCTGATGGC AGTTGGCACG
 TW183 TGGTAAAGTG ATCATGGGTA GATCACAAAT TGCTGATGGC AGTTGGCACG
 TOR1 TGGTAAAGTG ATCATGGGTA GATCACAAAT TGCTGATGGC AGTTGGCACG
 WA97001 TGGTAAAGTG ATCATGGGTA GATCACAAAT TGCTGATGGC AGTTGGCACG
 1979 TGGTAAAGTG ATCATGGGTA GATCACAAAT TGCTGATGGC AGTTGGCACG
 SH511 TGGTAAAGTG ATCATGGGTA GATCACAAAT TGCTGATGGC AGTTGGCACG

460 470 480 490 500

Identity

B26 CATTTATGTG TCATACGGAT TTCTCCTCTA ATAATGTACT CTTTGATCTC
 LPCoLN CATTTATGTG TCATACGGAT TTCTCCTCTA ATAATGTACT CTTTGATCTC
 DE177 CATTTATGTG TCATACGGAT TTCTCCTCTA ATAATGTACT CTTTGATCTC
 N16 CATTTATGTG **C**CATACGGAT TTCTC**T**CTA ATAATGTACT CTTTGATCTC
 AR39 CATTTATGTG TCATACGGAT TTCTCCTCTA ATAATGTACT CTTTGATCTC
 CWL029 CATTTATGTG TCATACGGAT TTCTCCTCTA ATAATGTACT CTTTGATCTC
 J138 CATTTATGTG TCATACGGAT TTCTCCTCTA ATAATGTACT CTTTGATCTC
 TW183 CATTTATGTG TCATACGGAT TTCTCCTCTA ATAATGTACT CTTTGATCTC
 TOR1 CATTTATGTG TCATACGGAT TTCTCCTCTA ATAATGTACT CTTTGATCTC
 WA97001 CATTTATGTG TCATACGGAT TTCTCCTCTA ATAATGTACT CTTTGATCTC
 1979 CATTTATGTG TCATACGGAT TTCTCCTCTA ATAATGTACT CTTTGATCTC
 SH511 CATTTATGTG TCATACGGAT TTCTCCTCTA ATAATGTACT CTTTGATCTC

510 520 530 540 550






Identity






B26 GATAATACGT ATAAAACCTCT AAGAGAAAAT GGCCGTCAGC TAAATTCCAT
 LPCoLN GATAATACGT ATAAAACCTCT AAGAGAAAAT GGCCGTCAGC TAAATTCCAT
 DE177 GATAATACGT ATAAAACCTCT AAGAGAAAAT GGCCGTCAGC TAAATTCCAT
 N16 GATAATACGT ATAAAACCTCT AAGAGAAAAT GG**C****T**GTCAGC TAAATTCCAT
 AR39 GATAATACGT ATAAAACCTCT AAGAGAAAAT GGCCGTCAGC TAAATTCCAT
 CWL029 GATAATACGT ATAAAACCTCT AAGAGAAAAT GGCCGTCAGC TAAATTCCAT
 J138 GATAATACGT ATAAAACCTCT AAGAGAAAAT GGCCGTCAGC TAAATTCCAT
 TW183 GATAATACGT ATAAAACCTCT AAGAGAAAAT GGCCGTCAGC TAAATTCCAT
 TOR1 GATAATACGT ATAAAACCTCT AAGAGAAAAT GGCCGTCAGC TAAATTCCAT
 WA97001 GATAATACGT ATAAAACCTCT AAGAGAAAAT GGCCGTCAGC TAAATTCCAT
 1979 GATAATACGT ATAAAACCTCT AAGAGAAAAT GGCCGTCAGC TAAATTCCAT
 SH511 GATAATACGT ATAAAACCTCT AAGAGAAAAT GGCCGTCAGC TAAATTCCAT






560 570 580 590 600





Identity

B26 ATTCAACCTA CAAAATATGA TGTTACAGAG AGCCTCAGAT CATGAGTTCA
 LPCoLN ATTCAACCTA CAAAATATGA TGTTACAGAG AGCCTCAGAT CATGAGTTCA
 DE177 ATTCAACCTA CAAAATATGA TGTTACAGAG AGCCTCAGAT CATGAGTTCA
 N16 ATTCAAC**C**TA CAAAATATGA TGTTACAGAG AGCCTCAG
 AR39 ATTCAACCTA CAAAATATGA TGTTACAGAG AGCCTCAGAT CATGAGTTCA
 CWL029 ATTCAACCTA CAAAATATGA TGTTACAGAG AGCCTCAGAT CATGAGTTCA
 J138 ATTCAACCTA CAAAATATGA TGTTACAGAG AGCCTCAGAT CATGAGTTCA
 TW183 ATTCAACCTA CAAAATATGA TGTTACAGAG AGCCTCAGAT CATGAGTTCA
 TOR1 ATTCAACCTA CAAAATATGA TGTTACAGAG AGCCTCAGAT CATGAGTTCA
 WA97001 ATTCAACCTA CAAAATATGA TGTTACAGAG AGCCTCAGAT CATGAGTTCA
 1979 ATTCAACCTA CAAAATATGA TGTTACAGAG AGCCTCAGAT CATGAGTTCA
 SH511 ATTCAACCTA CAAAATATGA TGTTACAGAG AGCCTCAGAT CATGAGTTCA

	610	620	630	640	650
Identity					
B26	CAGAGTTTGG	AAGGAGTAAC	ATCGTCTTTG	GTGCCGGGCT	TTATGTGAAT
LPCoLN	CAGAGTTTGG	AAGGAGTAAC	ATCGTCTTTG	GTGCCGGGCT	TTATGTGAAT
DE177	CAGAGTTTGG	AAGGAGTAAC	ATCGCTCTTG	GTGCCGGGCT	TTATGTGAAT
N16					
AR39	CAGAGTTTGG	AAGGAGTAAC	ATCGCTCTTG	GTGCCGGGCT	TTATGTGAAT
CWL029	CAGAGTTTGG	AAGGAGTAAC	ATCGCTCTTG	GTGCCGGGCT	TTATGTGAAT
J138	CAGAGTTTGG	AAGGAGTAAC	ATCGCTCTTG	GTGCCGGGCT	TTATGTGAAT
TW183	CAGAGTTTGG	AAGGAGTAAC	ATCGCTCTTG	GTGCCGGGCT	TTATGTGAAT
TOR1	CAGAGTTTGG	AAGGAGTAAC	ATCGCTCTTG	GTGCCGGGCT	TTATGTGAAT
WA97001	CAGAGTTTGG	AAGGAGTAAC	ATCGCTCTTG	GTGCCGGGCT	TTATGTGAAT
1979	CAGAGTTTGG	AAGGAGTAAC	ATCGCTCTTG	GTGCCGGGCT	TTATGTGAAT
SH511	CAGAGTTTGG	AAGGAGTAAC	ATCGCTCTTG	GTGCCGGGCT	TTATGTGAAT

	660	670	680	690	700
Identity					
B26	GCCTTGCAGA	ATCTCCCTAG	CAATTTAGCA	GCACAATATT	TTGGAATCGC
LPCoLN	GCCTTGCAGA	ATCTCCCTAG	CAATTTAGCA	GCACAATATT	TTGGAATCGC
DE177	GCCTTGCAGA	ATCTCCCTAG	CAATTTAGCA	GCACAATATT	TTGGAATCGC
N16					
AR39	GCCTTGCAGA	ATCTCCCTAG	CAATTTAGCA	GCACAATATT	TTGGAATCGC
CWL029	GCCTTGCAGA	ATCTCCCTAG	CAATTTAGCA	GCACAATATT	TTGGAATCGC
J138	GCCTTGCAGA	ATCTCCCTAG	CAATTTAGCA	GCACAATATT	TTGGAATCGC
TW183	GCCTTGCAGA	ATCTCCCTAG	CAATTTAGCA	GCACAATATT	TTGGAATCGC
TOR1	GCCTTGCAGA	ATCTCCCTAG	CAATTTAGCA	GCACAATATT	TTGGAATCGC
WA97001	GCCTTGCAGA	ATCTCCCTAG	CAATTTAGCA	GCACAATATT	TTGGAATCGC
1979	GCCTTGCAGA	ATCTCCCTAG	CAATTTAGCA	GCACAATATT	TTGGAATCGC
SH511	GCCTTGCAGA	ATCTCCCTAG	CAATTTAGCA	GCACAATATT	TTGGAATCGC

	710	720	730	740	750
Identity					
B26	ATACAAAATA	CGTCCTGAAT	ATCGTTTGGG	GGTGTTTTTG	GACCATAATT
LPCoLN	ATACAAAATA	CGTCCTGAAT	ATCGTTTGGG	GGTGTTTTTG	GACCATAATT
DE177	ATACAAAATA	CGTCCTGAAT	ATCGTTTGGG	GGTGTTTTTG	GACCATAATT
N16					
AR39	ATACAAAATA	CGTCCTAAAT	ATCGTTTGGG	GGTGTTTTTG	GACCATAATT
CWL029	ATACAAAATA	CGTCCTAAAT	ATCGTTTGGG	GGTGTTTTTG	GACCATAATT
J138	ATACAAAATA	CGTCCTAAAT	ATCGTTTGGG	GGTGTTTTTG	GACCATAATT
TW183	ATACAAAATA	CGTCCTAAAT	ATCGTTTGGG	GGTGTTTTTG	GACCATAATT
TOR1	ATACAAAATA	CGTCCTAAAT	ATCGTTTGGG	GGTGTTTTTG	GACCATAATT
WA97001	ATACAAAATA	CGTCCTAAAT	ATCGTTTGGG	GGTGTTTTTG	GACCATAATT
1979	ATACAAAATA	CGTCCTAAAT	ATCGTTTGGG	GGTGTTTTTG	GACCATAATT
SH511	ATACAAAATA	CGTCCTAAAT	ATCGTTTGGG	GGTGTTTTTG	GACCATAATT

	760	770	780	790	800
Identity					
B26	TCAGCTCCCA	CGTTCCTAAT	AATTTTAAACG	TAAGCCACAA	TAGACTCTGG
LPCoLN	TCAGCTCCCA	CGTTCCTAAT	AATTTTAAACG	TAAGCCACAA	TAGACTCTGG
DE177	TCAGCTCCCA	CGTTCCTAAT	AATTTTAAACG	TAAGCCACAA	TAGACTCTGG
N16					
AR39	TCAGCTCCCA	CGTTCCTAAT	AATTTTAAACG	TAAGCCACAA	TAGACTCTGG
CWL029	TCAGCTCCCA	CGTTCCTAAT	AATTTTAAACG	TAAGCCACAA	TAGACTCTGG
J138	TCAGCTCCCA	CGTTCCTAAT	AATTTTAAACG	TAAGCCACAA	TAGACTCTGG
TW183	TCAGCTCCCA	CGTTCCTAAT	AATTTTAAACG	TAAGCCACAA	TAGACTCTGG
TOR1	TCAGCTCCCA	CGTTCCTAAT	AATTTTAAACG	TAAGCCACAA	TAGACTCTGG
WA97001	TCAGCTCCCA	CGTTCCTAAT	AATTTTAAACG	TAAGCCACAA	TAGACTCTGG
1979	TCAGCTCCCA	CGTTCCTAAT	AATTTTAAACG	TAAGCCACAA	TAGACTCTGG
SH511	TCAGCTCCCA	CGTTCCTAAT	AATTTTAAACG	TAAGCCACAA	TAGACTCTGG

	810	820	830	840	850
Identity					
B26	ATGGGAGCCT	TTATTGGATG	GCAGGATTCT	GATGCTCTAG	GATCTAGTGT
LPCoLN	ATGGGAGCCT	TTATTGGATG	GCAGGATTCT	GATGCTCTAG	GATCTAGTGT
DE177	ATGGGAGCCT	TTATTGGATG	GCAGGATTCT	GATGCTCTAG	GATCTAGTGT
N16					
AR39	ATGGGAGCCT	TTATTGGATG	GCAGGATTCT	GATGCTCTAG	GATCTAGTGT
CWL029	ATGGGAGCCT	TTATTGGATG	GCAGGATTCT	GATGCTCTAG	GATCTAGTGT
J138	ATGGGAGCCT	TTATTGGATG	GCAGGATTCT	GATGCTCTAG	GATCTAGTGT
TW183	ATGGGAGCCT	TTATTGGATG	GCAGGATTCT	GATGCTCTAG	GATCTAGTGT
TOR1	ATGGGAGCCT	TTATTGGATG	GCAGGATTCT	GATGCTCTAG	GATCTAGTGT
WA97001	ATGGGAGCCT	TTATTGGATG	GCAGGATTCT	GATGCTCTAG	GATCTAGTGT
1979	ATGGGAGCCT	TTATTGGATG	GCAGGATTCT	GATGCTCTAG	GATCTAGTGT
SH511	ATGGGAGCCT	TTATTGGATG	GCAGGATTCT	GATGCTCTAG	GATCTAGTGT

	860	870	880	890	900
Identity					
B26	CAAGGTGTCT	TTCGGATATG	GAAAA CAAAA	AGCCACGATT	ACAAGAGAGC
LPCoLN	CAAGGTGTCT	TTCGGATATG	GAAAA CAAAA	AGCCACGATT	ACAAGAGAGC
DE177	CAAGGTGTCT	TTCGGATATG	GAAAA CAAAA	AGCCACGATT	ACAAGAGAGC
N16					
AR39	CAAGGTGTCT	TTCGGATATG	GAAAA CAAAA	AGCCACGATT	ACAAGAGAGC
CWL029	CAAGGTGTCT	TTCGGATATG	GAAAA CAAAA	AGCCACGATT	ACAAGAGAGC
J138	CAAGGTGTCT	TTCGGATATG	GAAAA CAAAA	AGCCACGATT	ACAAGAGAGC
TW183	CAAGGTGTCT	TTCGGATATG	GAAAA CAAAA	AGCCACGATT	ACAAGAGAGC
TOR1	CAAGGTGTCT	TTCGGATATG	GAAAA CAAAA	AGCCACGATT	ACAAGAGAGC
WA97001	CAAGGTGTCT	TTCGGATATG	GAAAA CAAAA	AGCCACGATT	ACAAGAGAGC
1979	CAAGGTGTCT	TTCGGATATG	GAAAA CAAAA	AGCCACGATT	ACAAGAGAGC
SH511	CAAGGTGTCT	TTCGGATATG	GAAAA CAAAA	AGCCACGATT	ACAAGAGAGC

	910	920	930	940	950
Identity					
B26	AATTAGAGAA	TACAGAAGCC	GGGAGTGGGG	AGAGCCATTT	TGAAGGGGTC
LPCoLN	AATTAGAGAA	TACAGAAGCC	GGGAGTGGGG	AGAGCCATTT	TGAAGGGGTC
DE177	AATTAGAGAA	TACAGAAGCC	GGGAGTGGGG	AGAGCCATTT	TGAAGGGGTC
N16					
AR39	AATTAGAGAA	TACAGAAGCC	GGGAGTGGGG	AGAGCCATTT	TGAAGGGGTC
CWL029	AATTAGAGAA	TACAGAAGCC	GGGAGTGGGG	AGAGCCATTT	TGAAGGGGTC
J138	AATTAGAGAA	TACAGAAGCC	GGGAGTGGGG	AGAGCCATTT	TGAAGGGGTC
TW183	AATTAGAGAA	TACAGAAGCC	GGGAGTGGGG	AGAGCCATTT	TGAAGGGGTC
TOR1	AATTAGAGAA	TACAGAAGCC	GGGAGTGGGG	AGAGCCATTT	TGAAGGGGTC
WA97001	AATTAGAGAA	TACAGAAGCC	GGGAGTGGGG	AGAGCCATTT	TGAAGGGGTC
1979	AATTAGAGAA	TACAGAAGCC	GGGAGTGGGG	AGAGCCATTT	TGAAGGGGTC
SH511	AATTAGAGAA	TACAGAAGCC	GGGAGTGGGG	AGAGCCATTT	TGAAGGGGTC

	960	970	980	990	1,000
Identity					
B26	GCTGCTCAGA	TAGAAGGGCG	GTATGGTAAG	AGCCTCGGAG	GACATGTCAG
LPCoLN	GCTGCTCAGA	TAGAAGGGCG	GTATGGTAAG	AGCCTCGGAG	GACATGTCAG
DE177	GCTGCTCAGA	TAGAAGGGCG	GTATGGTAAG	AGCCTCGGAG	GACATGTCAG
N16					
AR39	GCTGCTCAGA	TAGAAGGGCG	GTATGGTAAG	AGCCTCGGAG	GACATGTCAG
CWL029	GCTGCTCAGA	TAGAAGGGCG	GTATGGTAAG	AGCCTCGGAG	GACATGTCAG
J138	GCTGCTCAGA	TAGAAGGGCG	GTATGGTAAG	AGCCTCGGAG	GACATGTCAG
TW183	GCTGCTCAGA	TAGAAGGGCG	GTATGGTAAG	AGCCTCGGAG	GACATGTCAG
TOR1	GCTGCTCAGA	TAGAAGGGCG	GTATGGTAAG	AGCCTCGGAG	GACATGTCAG
WA97001	GCTGCTCAGA	TAGAAGGGCG	GTATGGTAAG	AGCCTCGGAG	GACATGTCAG
1979	GCTGCTCAGA	TAGAAGGGCG	GTATGGTAAG	AGCCTCGGAG	GACATGTCAG
SH511	GCTGCTCAGA	TAGAAGGGCG	GTATGGTAAG	AGCCTCGGAG	GACATGTCAG

Identity	1,010	1,020	1,030	1,040	1,050
B26	GGTCCAGCCT	TTCCTAGGA	TGCAGTTTGT	CCACATTACA	AGGAAAGAAT
LPCoLN	GGTCCAGCCT	TTCCTAGGA	TGCAGTTTGT	CCACATTACA	AGGAAAGAAT
DE177	GGTCCAGCCT	TTCCTAGGA	TGCAGTTTGT	CCACATTACA	AGGAAAGAAT
N16					
AR39	GGTCCAGCCT	TTCCTAGGAC	TGCAGTTTGT	CCACATTACA	AGGAAAGAAT
CWL029	GGTCCAGCCT	TTCCTAGGAC	TGCAGTTTGT	CCACATTACA	AGGAAAGAAT
J138	GGTCCAGCCT	TTCCTAGGAC	TGCAGTTTGT	CCACATTACA	AGGAAAGAAT
TW183	GGTCCAGCCT	TTCCTAGGAC	TGCAGTTTGT	CCACATTACA	AGGAAAGAAT
TOR1	GGTCCAGCCT	TTCCTAGGAC	TGCAGTTTGT	CCACATTACA	AGGAAAGAAT
WA97001	GGTCCAGCCT	TTCCTAGGAC	TGCAGTTTGT	CCACATTACA	AGGAAAGAAT
1979	GGTCCAGCCT	TTCCTAGGA	TGCAGTTTGT	CCACATTACA	AGGAAAGAAT
SH511	GGTCCAGCCT	TTCCTAGGA	TGCAGTTTGT	CCACATTACA	AGGAAAGAAT

Identity	1,060	1,070	1,080	1,090	1,100
B26	ATACCGAAAA	TGAGAGTGC	TTTCCTGTAC	ACTATGATCC	TATAGACTAT
LPCoLN	ATACCGAAAA	TGAGAGTGC	TTTCCTGTAC	ACTATGATCC	TATAGACTAT
DE177	ATACCGAAAA	TGAGAGTGC	TTTCCTGTAC	ACTATGATCC	TATAGACTAT
N16					
AR39	ATACCGAAAA	TGCAGTGC	TTTCCTGTAC	ACTATGATCC	TATAGACTAT
CWL029	ATACCGAAAA	TGCAGTGC	TTTCCTGTAC	ACTATGATCC	TATAGACTAT
J138	ATACCGAAAA	TGCAGTGC	TTTCCTGTAC	ACTATGATCC	TATAGACTAT
TW183	ATACCGAAAA	TGCAGTGC	TTTCCTGTAC	ACTATGATCC	TATAGACTAT
TOR1	ATACCGAAAA	TGCAGTGC	TTTCCTGTAC	ACTATGATCC	TATAGACTAT
WA97001	ATACCGAAAA	TGCAGTGC	TTTCCTGTAC	ACTATGATCC	TATAGACTAT
1979	ATACCGAAAA	TGCAGTGC	TTTCCTGTAC	ACTATGATCC	TATAGACTAT
SH511	ATACCGAAAA	TGCAGTGC	TTTCCTGTAC	ACTATGATCC	TATAGACTAT

Identity	1,110	1,120	1,130	1,140	1,150
B26	TCTACAGGTG	TAGTGTATTT	AGGAATTGGA	TCTCATATTG	CACTTGTAGA
LPCoLN	TCTACAGGTG	TAGTGTATTT	AGGAATTGGA	TCTCATATTG	CACTTGTAGA
DE177	TCTACAGGTG	TAGTGTATTT	AGGAATTGGA	TCTCATATTG	CACTTGTAGA
N16					
AR39	TCTACAGGTG	TAGTGTATTT	AGGAATTGGA	TCTCATATTG	CACTTGTAGA
CWL029	TCTACAGGTG	TAGTGTATTT	AGGAATTGGA	TCTCATATTG	CACTTGTAGA
J138	TCTACAGGTG	TAGTGTATTT	AGGAATTGGA	TCTCATATTG	CACTTGTAGA
TW183	TCTACAGGTG	TAGTGTATTT	AGGAATTGGA	TCTCATATTG	CACTTGTAGA
TOR1	TCTACAGGTG	TAGTGTATTT	AGGAATTGGA	TCTCATATTG	CACTTGTAGA
WA97001	TCTACAGGTG	TAGTGTATTT	AGGAATTGGA	TCTCATATTG	CACTTGTAGA
1979	TCTACAGGTG	TAGTGTATTT	AGGAATTGGA	TCTCATATTG	CACTTGTAGA
SH511	TCTACAGGTG	TAGTGTATTT	AGGAATTGGA	TCTCATATTG	CACTTGTAGA

Identity	1,160	1,170	1,180	1,190	1,200
B26	TTCTTTACAT	GTAGGCACAC	GCATGGGAAT	GGAGCAAAC	TTTGAGCCC
LPCoLN	TTCTTTACAT	GTAGGCACAC	GCATGGGAAT	GGAGCAAAC	TTTGAGCCC
DE177	TTCTTTACAT	GTAGGCACAC	GCATGGGAAT	GGAGCAAAC	TTTGAGCCC
N16					
AR39	TTCTTTACAT	GTAGGCACAC	GCATGGGAAT	GGAGCAAAC	TTTGAGCCC
CWL029	TTCTTTACAT	GTAGGCACAC	GCATGGGAAT	GGAGCAAAC	TTTGAGCCC
J138	TTCTTTACAT	GTAGGCACAC	GCATGGGAAT	GGAGCAAAC	TTTGAGCCC
TW183	TTCTTTACAT	GTAGGCACAC	GCATGGGAAT	GGAGCAAAC	TTTGAGCCC
TOR1	TTCTTTACAT	GTAGGCACAC	GCATGGGAAT	GGAGCAAAC	TTTGAGCCC
WA97001	TTCTTTACAT	GTAGGCACAC	GCATGGGAAT	GGAGCAAAC	TTTGAGCCC
1979	TTCTTTACAT	GTAGGCACAC	GCATGGGAAT	GGAGCAAAC	TTTGAGCCC
SH511	TTCTTTACAT	GTAGGCACAC	GCATGGGAAT	GGAGCAAAC	TTTGAGCCC

1,210 1,220 1,230 1,240 1,250

Identity

B26 ATACGGAGAG GTTCTCAGGA TCTATAGCGT CTATTGGAAA CTTTGTGTTT
 LPCoLN ATACGGAGAG GTTCTCAGGA TCTATAGCGT CTATTGGAAA CTTTGTGTTT
 DE177 ATACGGACAG GTTCTCAGGA TCTATAGCGT CTATTGGAAA CTTTGTGTTT
 N16
 AR39 ATACGGACAG GTTCTCAGGA TCTATAGCGT CTATTGGAAA CTTTGTGTTT
 CWL029 ATACGGACAG GTTCTCAGGA TCTATAGCGT CTATTGGAAA CTTTGTGTTT
 J138 ATACGGACAG GTTCTCAGGA TCTATAGCGT CTATTGGAAA CTTTGTGTTT
 TW183 ATACGGACAG GTTCTCAGGA TCTATAGCGT CTATTGGAAA CTTTGTGTTT
 TOR1 ATACGGACAG GTTCTCAGGA TCTATAGCGT CTATTGGAAA CTTTGTGTTT
 WA97001 ATACGGACAG GTTCTCAGGA TCTATAGCGT CTATTGGAAA CTTTGTGTTT
 1979 ATACGGACAG GTTCTCAGGA TCTATAGCGT CTATTGGAAA CTTTGTGTTT
 SH511 ATACGGACAG GTTCTCAGGA TCTATAGCGT CTATTGGAAA CTTTGTGTTT

1,260 1,270 1,280 1,290 1,300

Identity

B26 GAAAAGCTTG ATGTGACTCA CACAAGGGCA TTTGCGGAAA TGC GTGTCAA
 LPCoLN GAAAAGCTTG ATGTGACTCA CACAAGGGCA TTTGCGGAAA TGC GTGTCAA
 DE177 GAAAAGCTTG ATGTGACTCA CACAAGGGCA TTTGCGGAAA TGC GTGTCAA
 N16
 AR39 GAAAAGCTTG ATGTGACTCA CACAAGGGCA TTTGCGGAAA TGC GTGTCAA
 CWL029 GAAAAGCTTG ATGTGACTCA CACAAGGGCA TTTGCGGAAA TGC GTGTCAA
 J138 GAAAAGCTTG ATGTGACTCA CACAAGGGCA TTTGCGGAAA TGC GTGTCAA
 TW183 GAAAAGCTTG ATGTGACTCA CACAAGGGCA TTTGCGGAAA TGC GTGTCAA
 TOR1 GAAAAGCTTG ATGTGACTCA CACAAGGGCA TTTGCGGAAA TGC GTGTCAA
 WA97001 GAAAAGCTTG ATGTGACTCA CACAAGGGCA TTTGCGGAAA TGC GTGTCAA
 1979 GAAAAGCTTG ATGTGACTCA CACAAGGGCA TTTGCGGAAA TGC GTGTCAA
 SH511 GAAAAGCTTG ATGTGACTCA CACAAGGGCA TTTGCGGAAA TGC GTGTCAA

1,310 1,320 1,330 1,340 1,350

Identity

B26 CTATGAGCTT CCCTATCTAC AGTCTCTGAA TCTTATTCTA CGAGTTAATC
 LPCoLN CTATGAGCTT CCCTATCTAC AGTCTCTGAA TCTTATTCTA CGAGTTAATC
 DE177 CTATGAGCTT CCCTATCTAC AGTCTCTGAA TCTTATTCTA CGAGTTAATC
 N16
 AR39 CTATGAGCTT CCCTATCTAC AGTCTCTGAA TCTTATTCTA CGAGTTAATC
 CWL029 CTATGAGCTT CCCTATCTAC AGTCTCTGAA TCTTATTCTA CGAGTTAATC
 J138 CTATGAGCTT CCCTATCTAC AGTCTCTGAA TCTTATTCTA CGAGTTAATC
 TW183 CTATGAGCTT CCCTATCTAC AGTCTCTGAA TCTTATTCTA CGAGTTAATC
 TOR1 CTATGAGCTT CCCTATCTAC AGTCTCTGAA TCTTATTCTA CGAGTTAATC
 WA97001 CTATGAGCTT CCCTATCTAC AGTCTCTGAA TCTTATTCTA CGAGTTAATC
 1979 CTATGAGCTT CCCTATCTAC AGTCTCTGAA TCTTATTCTA CGAGTTAATC
 SH511 CTATGAGCTT CCCTATCTAC AGTCTCTGAA TCTTATTCTA CGAGTTAATC

1,360 1,370 1,380 1,390 1,400

Identity

B26 AACAGCCTCT ACAAGGGGTT ATGGGATTTT CCAGTGATCT TAGGTATGCC
 LPCoLN AACAGCCTCT ACAAGGGGTT ATGGGATTTT CCAGTGATCT TAGGTATGCC
 DE177 AACAGCCTCT ACAAGGGGTT ATGGGATTTT CCAGTGATCT TAGGTATGCC
 N16
 AR39 AACAGCCTCT ACAAGGGGTT ATGGGATTTT CCAGTGATCT TAGGTATGCC
 CWL029 AACAGCCTCT ACAAGGGGTT ATGGGATTTT CCAGTGATCT TAGGTATGCC
 J138 AACAGCCTCT ACAAGGGGTT ATGGGATTTT CCAGTGATCT TAGGTATGCC
 TW183 AACAGCCTCT ACAAGGGGTT ATGGGATTTT CCAGTGATCT TAGGTATGCC
 TOR1 AACAGCCTCT ACAAGGGGTT ATGGGATTTT CCAGTGATCT TAGGTATGCC
 WA97001 AACAGCCTCT ACAAGGGGTT ATGGGATTTT CCAGTGATCT TAGGTATGCC
 1979 AACAGCCTCT ACAAGGGGTT ATGGGATTTT CCAGTGATCT TAGGTATGCC
 SH511 AACAGCCTCT ACAAGGGGTT ATGGGATTTT CCAGTGATCT TAGGTATGCC

1,410 1,413

Identity

B26 TTAGGATTCT AA
 LPCoLN TTAGGATTCT AA
 DE177 TTAGGATTCT AA
 N16
 AR39 TTAGGATTCT AA
 CWL029 TTAGGATTCT AA
 J138 TTAGGATTCT AA
 TW183 TTAGGATTCT AA
 TOR1 TTAGGATTCT AA
 WA97001 TTAGGATTCT AA
 1979 TTAGGATTCT AA
 SH511 TTAGGATTCT AA

