


	1	10	20	30	40	50
Identity						
DE177	AATCCTTTTA	TATAAATATA	AGAGATTCAA	GGTTTTATTTC	ATGGC TTTGC	
N16	AATCCTTTTA	TATAAA <b>C</b> ATA	AGAGAT <b>G</b> <b>C</b> <b>G</b>	<b>G</b> ATTTTATT <b>A</b>	ATG <b>A</b> T TTTGC	
AR39	AATCCTTTTA	TATAAATATA	AGAGATTCAA	GGTTTTATTTC	ATGGC TTTGC	
CWL029	AATCCTTTTA	TATAAATATA	AGAGATTCAA	GGTTTTATTTC	ATGGC TTTGC	
J138	AATCCTTTTA	TATAAATATA	AGAGATTCAA	GGTTTTATTTC	ATGGC TTTGC	
TW183	AATCCTTTTA	TATAAATATA	AGAGATTCAA	GGTTTTATTTC	ATGGC TTTGC	
TOR1	AATCCTTTTA	TATAAATATA	AGAGATTCAA	GGTTTTATTTC	ATGGC TTTGC	
WA97001	AATCCTTTTA	TATAAATATA	AGAGATTCAA	GGTTTTATTTC	ATGGC TTTGC	
1979	AATCCTTTTA	TATAAATATA	AGAGATTCAA	GGTTTTATTTC	ATGGC TTTGC	
SH511	AATCCTTTTA	TATAAATATA	AGAGATTCAA	GGTTTTATTTC	ATGGC TTTGC	
Identity						
DE177	TTTATAATGA	AGGAAACGTA	CTACCGCGAC	TTTC TTCATG	AGAAC TATTT	
N16	TTTATAATGA	AG <b>T</b> A <b>C</b> <b>G</b> CGT <b>C</b>	CT <b>T</b> C CG <b>T</b> GAC	TTT <b>A</b> TT <b>A</b> <b>A</b> <b>A</b>	AGAA <b>A</b> TATTT	
AR39	TTTATAATGA	AGGAAACGTA	CTACCGCGAC	TTTC TTCATG	AGAAC TATTT	
CWL029	TTTATAATGA	AGGAAACGTA	CTACCGCGAC	TTTC TTCATG	AGAAC TATTT	
J138	TTTATAATGA	AGGAAACGTA	CTACCGCGAC	TTTC TTCATG	AGAAC TATTT	
TW183	TTTATAATGA	AGGAAACGTA	CTACCGCGAC	TTTC TTCATG	AGAAC TATTT	
TOR1	TTTATAATGA	AGGAAACGTA	CTACCGCGAC	TTTC TTCATG	AGAAC TATTT	
WA97001	TTTATAATGA	AGGAAACGTA	CTACCGCGAC	TTTC TTCATG	AGAAC TATTT	
1979	TTTATAATGA	AGGAAACGTA	CTACCGCGAC	TTTC TTCATG	AGAAC TATTT	
SH511	TTTATAATGA	AGGAAACGTA	CTACCGCGAC	TTTC TTCATG	AGAAC TATTT	
Identity						
DE177	GAAAAACAAG	AAGAGCATGT	TTATGAAAAAT	TTATAAAACT	G CAGGGGAGT	
N16	<b>T</b> AAA-- <b>T</b> AAG	AAGAGCATGT	TTATGAAAAAT	TTATAAAAC <b>C</b>	<b>G</b> <b>T</b> TGGGG <b>A</b> <b>A</b>	
AR39	GAAAAACAAG	AAGAGCATGT	TTATGAAAAAT	TTATAAAACT	G CAGGGGAGT	
CWL029	GAAAAACAAG	AAGAGCATGT	TTATGAAAAAT	TTATAAAACT	G CAGGGGAGT	
J138	GAAAAACAAG	AAGAGCATGT	TTATGAAAAAT	TTATAAAACT	G CAGGGGAGT	
TW183	GAAAAACAAG	AAGAGCATGT	TTATGAAAAAT	TTATAAAACT	G CAGGGGAGT	
TOR1	GAAAAACAAG	AAGAGCATGT	TTATGAAAAAT	TTATAAAACT	G CAGGGGAGT	
WA97001	GAAAAACAAG	AAGAGCATGT	TTATGAAAAAT	TTATAAAACT	G CAGGGGAGT	
1979	GAAAAACAAG	AAGAGCATGT	TTATGAAAAAT	TTATAAAACT	G CAGGGGAGT	
SH511	GAAAAACAAG	AAGAGCATGT	TTATGAAAAAT	TTATAAAACT	G CAGGGGAGT	
Identity						
DE177	TTTTTTTAGC	AAATGCAAAA	TGGCCCTTGG	TACCGGCTGG	GTATCGACGT	
N16	TTTTTT <b>G</b> TAGC	AAATGCA <b>G</b> A <b>C</b>	TGGCC <b>G</b> TT <b>G</b> <b>A</b>	T <b>A</b> <b>T</b> <b>G</b> GGCTGG	GTATCGACGT	
AR39	TTTTTTTAGC	AAATGCAAAA	TGGCCCTTGG	TACCGGCTGG	GTATCGACGT	
CWL029	TTTTTTTAGC	AAATGCAAAA	TGGCCCTTGG	TACCGGCTGG	GTATCGACGT	
J138	TTTTTTTAGC	AAATGCAAAA	TGGCCCTTGG	TACCGGCTGG	GTATCGACGT	
TW183	TTTTTTTAGC	AAATGCAAAA	TGGCCCTTGG	TACCGGCTGG	GTATCGACGT	
TOR1	TTTTTTTAGC	AAATGCAAAA	TGGCCCTTGG	TACCGGCTGG	GTATCGACGT	
WA97001	TTTTTTTAGC	AAATGCAAAA	TGGCCCTTGG	TACCGGCTGG	GTATCGACGT	
1979	TTTTTTTAGC	AAATGCAAAA	TGGCCCTTGG	TACCGGCTGG	GTATCGACGT	
SH511	TTTTTTTAGC	AAATGCAAAA	TGGCCCTTGG	TACCGGCTGG	GTATCGACGT	


Identity	210	220	230	240	250
DE177	G T T C G A G G A A	A A G A T T T T G T	T C T A T C T C C G	C T C G T G G A C T	T A G T G A T T C T
N16	G T T C G A G G A C	A A G A C T T T G T	T A C A T C T C C T	G T T G A G G A C T	T A G T G A T T C T
AR39	G T T C G A G G A A	A A G A T T T T G T	T C T A T C C C C G	C T C G T G G A C T	T A G T G A T T C T
CWL029	G T T C G A G G A A	A A G A T T T T G T	T C T A T C C C C G	C T C G T G G A C T	T A G T G A T T C T
J138	G T T C G A G G A A	A A G A T T T T G T	T C T A T C C C C G	C T C G T G G A C T	T A G T G A T T C T
TW183	G T T C G A G G A A	A A G A T T T T G T	T C T A T C C C C G	C T C G T G G A C T	T A G T G A T T C T
TOR1	G T T C G A G G A A	A A G A T T T T G T	T C T A T C C C C G	C T C G T G G A C T	T A G T G A T T C T
WA97001	G T T C G A G G A A	A A G A T T T T G T	T C T A T C C C C G	C T C G T G G A C T	T A G T G A T T C T
1979	G T T C G A G G A A	A A G A T T T T G T	T C T A T C T C C G	C T C G T G G A C T	T A G T G A T T C T
SH511	G T T C G A G G A A	A A G A T T T T G T	T C T A T C T C C G	C T C G T G G A C T	T A G T G A T T C T


Identity	260	270	280	290	300
DE177	A T T T C C T T G G	G T A A C C A A A G	A C T C C C G A T A	T T C A C C T T G C	A G C A T G A C A T
N16	A T T T C C T T G G	G T A A C C G A A G	A C T C C C A A T A	T T C A C C T T A C	A G C A T G A C A T
AR39	A T T T C C T T G G	G T A A C C A A A G	A C T C C C G A T A	T T C A C C T T G C	A G C A T G A C A T
CWL029	A T T T C C T T G G	G T A A C C A A A G	A C T C C C G A T A	T T C A C C T T G C	A G C A T G A C A T
J138	A T T T C C T T G G	G T A A C C A A A G	A C T C C C G A T A	T T C A C C T T G C	A G C A T G A C A T
TW183	A T T T C C T T G G	G T A A C C A A A G	A C T C C C G A T A	T T C A C C T T G C	A G C A T G A C A T
TOR1	A T T T C C T T G G	G T A A C C A A A G	A C T C C C G A T A	T T C A C C T T G C	A G C A T G A C A T
WA97001	A T T T C C T T G G	G T A A C C A A A G	A C T C C C G A T A	T T C A C C T T G C	A G C A T G A C A T
1979	A T T T C C T T G G	G T A A C C A A A G	A C T C C C G A T A	T T C A C C T T G C	A G C A C G A C A T
SH511	A T T T C C T T G G	G T A A C C A A A G	A C T C C C G A T A	T T C A C C T T G C	A G C A C G A C A T

Identity	310	320	330	340	350
DE177	T C A C T T G T A T	T T G T A G G A G T	A T A G T A G A G T	G T A T T C C T G T	T G T A A G T A C A
N16	G C A T T T C T A T	T C G T A G G A G T	A T A G T A G A G A	G T A T T C C C A T	T G C A A G T G C A
AR39	T C A C T T G T A T	T T G T A G G A G T	A T A G T A G A G T	G T A T T C C T G T	T G T A A G T A C A
CWL029	T C A C T T G T A T	T T G T A G G A G T	A T A G T A G A G T	G T A T T C C T G T	T G T A A G T A C A
J138	T C A C T T G T A T	T T G T A G G A G T	A T A G T A G A G T	G T A T T C C T G T	T G T A A G T A C A
TW183	T C A C T T G T A T	T T G T A G G A G T	A T A G T A G A G T	G T A T T C C T G T	T G T A A G T A C A
TOR1	T C A C T T G T A T	T T G T A G G A G T	A T A G T A G A G T	G T A T T C C T G T	T G T A A G T A C A
WA97001	T C A C T T G T A T	T T G T A G G A G T	A T A G T A G A G T	G T A T T C C T G T	T G T A A G T A C A
1979	T C A C T T G T A T	T T G T A G G A G T	A T A G T A G A G T	G T A T T C C T G T	T G T A A G T A C A
SH511	T C A C T T G T A T	T T G T A G G A G T	A T A G T A G A G T	G T A T T C C T G T	T G T A A G T A C A

Identity	360	370	380	390	400
DE177	T T A T T T G G T A	T C G G A C G A T T	T T G T G C T G T G	T G G T G C G T T G	A A G G T T T C T C
N16	T T G T T T G G T G	T C G G A C G A T T	T T G T G C T G T G	T G G T G C G T T G	A A G G T T T C T C
AR39	T T A T T T G G T A	T C G G A C G A T T	T T G T G C T G T G	T G G T G C G T T G	A A G G T T T C T C
CWL029	T T A T T T G G T A	T C G G A C G A T T	T T G T G C T G T G	T G G T G C G T T G	A A G G T T T C T C
J138	T T A T T T G G T A	T C G G A C G A T T	T T G T G C T G T G	T G G T G C G T T G	A A G G T T T C T C
TW183	T T A T T T G G T A	T C G G A C G A T T	T T G T G C T G T G	T G G T G C G T T G	A A G G T T T C T C
TOR1	T T A T T T G G T A	T C G G A C G A T T	T T G T G C T G T G	T G G T G C G T T G	A A G G T T T C T C
WA97001	T T A T T T G G T A	T C G G A C G A T T	T T G T G C T G T G	T G G T G C G T T G	A A G G T T T C T C
1979	T T A T T T G G T A	T C G G A C G A T T	T T G T G C T G T G	T G G T G C G T T G	A A G G T T T C T C
SH511	T T A T T T G G T A	T C G G A C G A T T	T T G T G C T G T G	T G G T G C G T T G	A A G G T T T C T C

	410	420	430	440	450
Identity					
DE177	AGGCTCTACG	TTTGATAAGA	TCTATCATAC	AATTGTCGCC	GTTCTAGGAA
N16	AGGCTCTACG	TTTGATAAGA	TCTATCATAC	AATTGTCGCC	GTTCTAGGAA
AR39	AGGCTCTACG	TTTGATAAGA	TCTATCATAC	AATTGTCGCC	GTTCTAGGAA
CWL029	AGGCTCTACG	TTTGATAAGA	TCTATCATAC	AATTGTCGCC	GTTCTAGGAA
J138	AGGCTCTACG	TTTGATAAGA	TCTATCATAC	AATTGTCGCC	GTTCTAGGAA
TW183	AGGCTCTACG	TTTGATAAGA	TCTATCATAC	AATTGTCGCC	GTTCTAGGAA
TOR1	AGGCTCTACG	TTTGATAAGA	TCTATCATAC	AATTGTCGCC	GTTCTAGGAA
WA97001	AGGCTCTACG	TTTGATAAGA	TCTATCATAC	AATTGTCGCC	GTTCTAGGAA
1979	AGGCTCTACG	TTTGATAAGA	TCTATCATAC	AATTGTCGCC	GTTCTAGGAA
SH511	AGGCTCTACG	TTTGATAAGA	TCTATCATAC	AATTGTCGCC	GTTCTAGGAA

	460	470	480	490	
Identity					
DE177	TTC TTGG TTT	GGGAATTCTT	ACGTTCA TTT	TAAGAATTAT	TTTTTCTG TG
N16	TTC TTGG TTT	GGGAATTCTT	ACGTTCA TTT	TAAGAATTAT	TTTTTCTG TG
AR39	TTC TTGG TTT	GGGAATTCTT	ACGTTCA TTT	TAAGAATTAT	TTTTTCTG TG
CWL029	TTC TTGG TTT	GGGAATTCTT	ACGTTCA TTT	TAAGAATTAT	TTTTTCTG TG
J138	TTC TTGG TTT	GGGAATTCTT	ACGTTCA TTT	TAAGAATTAT	TTTTTCTG TG
TW183	TTC TTGG TTT	GGGAATTCTT	ACGTTCA TTT	TAAGAATTAT	TTTTTCTG TG
TOR1	TTC TTGG TTT	GGGAATTCTT	ACGTTCA TTT	TAAGAATTAT	TTTTTCTG TG
WA97001	TTC TTGG TTT	GGGAATTCTT	ACGTTCA TTT	TAAGAATTAT	TTTTTCTG TG
1979	TTC TTGG TTT	GGGAATTCTT	ACGTTCA TTT	TAAGAATTAT	TTTTTCTG TG
SH511	TTC TTGG TTT	GGGAATTCTT	ACGTTCA TTT	TAAGAATTAT	TTTTTCTG TG

	505
Identity	
DE177	CTTAT
N16	CTTAT
AR39	CTTAT
CWL029	CTTAT
J138	CTTAT
TW183	CTTAT
TOR1	CTTAT
WA97001	CTTAT
1979	CTTAT
SH511	CTTAT

