


























	1	10	20	30	40	50																			
Identity																									
DE177	ATA TACTTAT					GTA TTAGCAA					AGCAAGTGCG					GAAGTTATTT					GTATA TTGCG				
AR39	ATA TACTTAT					GTA TTAGCAA					AGCAAGTGCG					GAAGTTATTT					GTATA TTGCG				
CWL029	ATA TACTTAT					GTA TTAGCAA					AGCAAGTGCG					GAAGTTATTT					GTATA TTGCG				
J138	ATA TACTTAT					GTA TTAGCAA					AGCAAGTGCG					GAAGTTATTT					GTATA TTGCG				
TW183	ATA TACTTAT					GTA TTAGCAA					AGCAAGTGCG					GAAGTTATTT					GTATA TTGCG				
TOR1	ATA TACTTAT					GTA TTAGCAA					AGCAAGTGCG					GAAGTTATTT					GTATA TTGCG				
WA97001	ATA TACTTAT					GTA TTAGCAA					AGCAAGTGCG					GAAGTTATTT					GTATA TTGCG				






	60	70	80	90	100																				
Identity																									
DE177	AAG TTC TTCC					CTGGAA TATC					TCTG TGCAAT					GTTTAAAAGA					AAGAG CGCCT				
AR39	AAG TTC TTCC					CTGGAA TATC					TCTG TGCAAT					GTTTAAAAGA					AAGAG CGCCT				
CWL029	AAG TTC TTCC					CTGGAA TATC					TCTG TGCAAT					GTTTAAAAGA					AAGAG CGCCT				
J138	AAG TTC TTCC					CTGGAA TATC					TCTG TGCAAT					GTTTAAAAGA					AAGAG CGCCT				
TW183	AAG TTC TTCC					CTGGAA TATC					TCTG TGCAAT					GTTTAAAAGA					AAGAG CGCCT				
TOR1	AAG TTC TTCC					CTGGAA TATC					TCTG TGCAAT					GTTTAAAAGA					AAGAG CGCCT				
WA97001	AAG TTC TTCC					CTGGAA TATC					TCTG TGCAAT					GTTTAAAAGA					AAGAG CGCCT				






	110	120	130	140	150																				
Identity																									
DE177	TTGGGGATCA					TTC TCTCAGG					AGGTCCTCAC					TCTG TCTATG					AAAACAAGGC				
AR39	TTGGGGATCA					TTC TCTCAGG					AGGTCCTCAC					TCTG TCTATG					AAAACAAGGC				
CWL029	TTGGGGATCA					TTC TCTCAGG					AGGTCCTCAC					TCTG TCTATG					AAAACAAGGC				
J138	TTGGGGATCA					TTC TCTCAGG					AGGTCCTCAC					TCTG TCTATG					AAAACAAGGC				
TW183	TTGGGGATCA					TTC TCTCAGG					AGGTCCTCAC					TCTG TCTATG					AAAACAAGGC				
TOR1	TTGGGGATCA					TTC TCTCAGG					AGGTCCTCAC					TCTG TCTATG					AAAACAAGGC				
WA97001	TTGGGGATCA					TTC TCTCAGG					AGGTCCTCAC					TCTG TCTATG					AAAACAAGGC				






	160	170	180	190	200																				
Identity																									
DE177	TCCACA TTTA					GATCCTGAAA					TCTA TAAACT					TGGCATTCCA					ATTCTAGCTA				
AR39	TCCACA TTTA					GATCCTGAAA					TCTA TAAACT					TGGCATTCCA					ATTCTAGCTA				
CWL029	TCCACA TTTA					GATCCTGAAA					TCTA TAAACT					TGGCATTCCA					ATTCTAGCTA				
J138	TCCACA TTTA					GATCCTGAAA					TCTA TAAACT					TGGCATTCCA					ATTCTAGCTA				
TW183	TCCACA TTTA					GATCCTGAAA					TCTA TAAACT					TGGCATTCCA					ATTCTAGCTA				
TOR1	TCCACA TTTA					GATCCTGAAA					TCTA TAAACT					TGGCATTCCA					ATTCTAGCTA				
WA97001	TCCACA TTTA					GATCCTGAAA					TCTA TAAACT					TGGCATTCCA					ATTCTAGCTA				


	210	220	230	240	250
Identity					
DE177	TTTGCTATGG	CATGCAGCTT	ATGGCTAGAG	ATTTTGGAGG	GACTGTAAGC
AR39	TTTGCTATGG	CATGCAGCTT	ATGGCTAGAG	ATTTTGGAGG	GACTGTAAGC
CWL029	TTTGCTATGG	CATGCAGCTT	ATGGCTAGAG	ATTTTGGAGG	GACTGTAAGC
J138	TTTGCTATGG	CATGCAGCTT	ATGGCTAGAG	ATTTTGGAGG	GACTGTAAGC
TW183	TTTGCTATGG	CATGCAGCTT	ATGGCTAGAG	ATTTTGGAGG	GACTGTAAGC
TOR1	TTTGCTATGG	CATGCAGCTT	ATGGCTAGAG	ATTTTGGAGG	GACTGTAAGC
WA97001	TTTGCTATGG	CATGCAGCTT	ATGGCTAGAG	ATTTTGGAGG	GACTGTAAGC
	260	270	280	290	300
Identity					
DE177	CCTGGTGTAG	GAGAAATTTGG	ATATACGCC	ATCCATCTGT	ATCCTTGTGA
AR39	CCTGGTGTAG	GAGAAATTTGG	ATATACGCC	ATCCATCTGT	ATCCTTGTGA
CWL029	CCTGGTGTAG	GAGAAATTTGG	ATATACGCC	ATCCATCTGT	ATCCTTGTGA
J138	CCTGGTGTAG	GAGAAATTTGG	ATATACGCC	ATCCATCTGT	ATCCTTGTGA
TW183	CCTGGTGTAG	GAGAAATTTGG	ATATACGCC	ATCCATCTGT	ATCCTTGTGA
TOR1	CCTGGTGTAG	GAGAAATTTGG	ATATACGCC	ATCCATCTGT	ATCCTTGTGA
WA97001	CCTGGTGTAG	GAGAAATTTGG	ATATACGCC	ATCCATCTGT	ATCCTTGTGA
	310	320	330	340	350
Identity					
DE177	GCTCTTCAAA	CACATCGTCG	ACTGCGAATC	TCTAGACACA	GAGATTCGGA
AR39	GCTCTTCAAA	CACATCGTCG	ACTGCGAATC	TCTAGACACA	GAGATTCGGA
CWL029	GCTCTTCAAA	CACATCGTCG	ACTGCGAATC	TCTAGACACA	GAGATTCGGA
J138	GCTCTTCAAA	CACATCGTCG	ACTGCGAATC	TCTAGACACA	GAGATTCGGA
TW183	GCTCTTCAAA	CACATCGTCG	ACTGCGAATC	TCTAGACACA	GAGATTCGGA
TOR1	GCTCTTCAAA	CACATCGTCG	ACTGCGAATC	TCTAGACACA	GAGATTCGGA
WA97001	GCTCTTCAAA	CACATCGTCG	ACTGCGAATC	TCTAGACACA	GAGATTCGGA
	360	370	380	390	400
Identity					
DE177	TGAGCCATCG	GGATCATGTT	ACGACAA TTC	CTGAAGGATT	TAA TG TAA TC
AR39	TGAGCCATCG	GGATCATGTT	ACGACAA TTC	CTGAAGGATT	TAA TG TAA TC
CWL029	TGAGCCATCG	GGATCATGTT	ACGACAA TTC	CTGAAGGATT	TAA TG TAA TC
J138	TGAGCCATCG	GGATCATGTT	ACGACAA TTC	CTGAAGGATT	TAA TG TAA TC
TW183	TGAGCCATCG	GGATCATGTT	ACGACAA TTC	CTGAAGGATT	TAA TG TAA TC
TOR1	TGAGCCATCG	GGATCATGTT	ACGACAA TTC	CTGAAGGATT	TAA TG TAA TC
WA97001	TGAGCCATCG	GGATCATGTT	ACGACAA TTC	CTGAAGGATT	TAA TG TAA TC


	410	420	430	440	450
Identity					
DE177	GCA TCCACCT	CACAA TGCTC	GATCTCAGGA	ATAGAAAATA	CCAAA CAA CG
AR39	GCA TCCACCT	CACAA TGCTC	GATCTCAGGA	ATAGAAAATA	CCAAA CAA CG
CWL029	GCA TCCACCT	CACAA TGCTC	GATCTCAGGA	ATAGAAAATA	CCAAA CAA CG
J138	GCA TCCACCT	CACAA TGCTC	GATCTCAGGA	ATAGAAAATA	CCAAA CAA CG
TW183	GCA TCCACCT	CACAA TGCTC	GATCTCAGGA	ATAGAAAATA	CCAAA CAA CG
TOR1	GCA TCCACCT	CACAA TGCTC	GATCTCAGGA	ATAGAAAATA	CCAAA CAA CG
WA97001	GCA TCCACCT	CACAA TGCTC	GATCTCAGGA	ATAGAAAATA	CCAAA CAA CG

	460	470	480	490	500
Identity					
DE177	GTTGTA CGGG	CTG CAA TTTC	ATCCCGAGGT	TTCTGACTCC	ACTCCAACGG
AR39	GTTGTA CGGG	CTG CAA TTTC	ATCCCGAGGT	TTCTGACTCC	ACTCCAACGG
CWL029	GTTGTA CGGG	CTG CAA TTTC	ATCCCGAGGT	TTCTGACTCC	ACTCCAACGG
J138	GTTGTA CGGG	CTG CAA TTTC	ATCCCGAGGT	TTCTGACTCC	ACTCCAACGG
TW183	GTTGTA CGGG	CTG CAA TTTC	ATCCCGAGGT	TTCTGACTCC	ACTCCAACGG
TOR1	GTTGTA CGGG	CTG CAA TTTC	ATCCCGAGGT	TTCTGACTCC	ACTCCAACGG
WA97001	GTTGTA CGGG	CTG CAA TTTC	ATCCCGAGGT	TTCTGACTCC	ACTCCAACGG

	510	520	530	540	550
Identity					
DE177	GAAATAAGAT	TCTAGAAACT	TTTGTTCAAG	AGATCTG TTC	TGCTCCACA
AR39	GAAATAAGAT	TCTAGAAACT	TTTGTTCAAG	AGATCTG TTC	TGCTCCACA
CWL029	GAAATAAGAT	TCTAGAAACT	TTTGTTCAAG	AGATCTG TTC	TGCTCCACA
J138	GAAATAAGAT	TCTAGAAACT	TTTGTTCAAG	AGATCTG TTC	TGCTCCACA
TW183	GAAATAAGAT	TCTAGAAACT	TTTGTTCAAG	AGATCTG TTC	TGCTCCACA
TOR1	GAAATAAGAT	TCTAGAAACT	TTTGTTCAAG	AGATCTG TTC	TGCTCCACA
WA97001	GAAATAAGAT	TCTAGAAACT	TTTGTTCAAG	AGATCTG TTC	TGCTCCACA

	560	570	580	590	600
Identity					
DE177	CTA TGGAA TC	CCTTG TATA T	TCAG CAAG AC	CTTG TAAG TA	AAATT CAAGA
AR39	CTA TGGAA TC	CCTTG TATA T	TCAG CAAG AC	CTTG TAAG TA	AAATT CAAGA
CWL029	CTA TGGAA TC	CCTTG TATA T	TCAG CAAG AC	CTTG TAAG TA	AAATT CAAGA
J138	CTA TGGAA TC	CCTTG TATA T	TCAG CAAG AC	CTTG TAAG TA	AAATT CAAGA
TW183	CTA TGGAA TC	CCTTG TATA T	TCAG CAAG AC	CTTG TAAG TA	AAATT CAAGA
TOR1	CTA TGGAA TC	CCTTG TATA T	TCAG CAAG AC	CTTG TAAG TA	AAATT CAAGA
WA97001	CTA TGGAA TC	CCTTG TATA T	TCAG CAAG AC	CTTG TAAG TA	AAATT CAAGA

	610	620	630	640	
Identity					
DE177	TACCGTTATT	GAAGTATTTG	ATGAAGTCGC	TCAGTCA TTA	GACGTACAAT
AR39	TACCGTTATT	GAAGTATTTG	ATGAAGTCGC	TCAGTCA TTA	GACGTACAAT
CWL029	TACCGTTATT	GAAGTATTTG	ATGAAGTCGC	TCAGTCA TTA	GACGTACAAT
J138	TACCGTTATT	GAAGTATTTG	ATGAAGTCGC	TCAGTCA TTA	GACGTACAAT
TW183	TACCGTTATT	GAAGTATTTG	ATGAAGTCGC	TCAGTCA TTA	GACGTACAAT
TOR1	TACCGTTATT	GAAGTATTTG	ATGAAGTCGC	TCAGTCA TTA	GACGTACAAT
WA97001	TACCGTTATT	GAAGTATTTG	ATGAAGTCGC	TCAGTCA TTA	GACGTACAAT

	659
Identity	
DE177	GGTTAGCTC
AR39	GGTTAGCTC
CWL029	GGTTAGCTC
J138	GGTTAGCTC
TW183	GGTTAGCTC
TOR1	GGTTAGCTC
WA97001	GGTTAGCTC

