

	(1)	1	10	20	30	40	50	60	70	87
AG1IA	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	S	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
CC7-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
NJ1-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
NJ2-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
ZZYY3-1-2	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
CC2-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
CQ3-2	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	RCCGTGGCCACCTTCAATCTTCGCTGCAAT			
FJ6	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
FJ7-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
GD3-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
GZ4-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
GZ8-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
HB1-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
MA-1-1-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
MB-2-1-1	(1)	A	TGCGTTTTGCGACCGT	RGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
HN2-2	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
WJ1-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
ZZYY2-1-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
HZFY4-1-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	ACCCTGGCCACCTTCAATCTTCGCTGCAAT			
AG1IA-05500	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
AH3	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
HZFY5-2-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
FM1-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
FM2-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
SY1-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
SY5-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
WC2-1	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			
Consensus	(1)	A	TGCGTTTTGCGACCGT	AGCCTCTGCTGTGACCGTCTTGGTCA	G	TGCTGCTGCTCCC	GCCGTGGCCACCTTCAATCTTCGCTGCAAT			

	(88)	88	100	110	120	130	140	150	160	174	
AG1IA	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
CC7-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
NJ1-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
NJ2-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
ZZYY3-1-2	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
CC2-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
CQ3-2	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
FJ6	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
FJ7-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
GD3-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
GZ4-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
GZ8-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
HB1-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
MA-1-1-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
MB-2-1-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
HN2-2	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
WJ1-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
ZZYY2-1-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
HZFY4-1-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
AG1IA-05500	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
AH3	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
HZFY5-2-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
FM1-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
FM2-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
SY1-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
SY5-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
WC2-1	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									
Consensus	(88)	CTCGGAAGCTGGTACTGGAAGGACAAGGACTGCTGCATTAAGGTTGGCGGACCCATATCTCCGCCAGCCCTCCCTCTGGGAATGCT									

	(175)	175	180	190	200	210	220	230	240	250	261
AG1IA (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
CC7-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
NJ1-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
NJ2-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
ZZYY3-1-2 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
CC2-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
CQ3-2 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
FJ6 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
FJ7-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
GD3-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
GZ4-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
GZ8-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
HB1-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
MA-1-1-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	W	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
MB-2-1-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
HN2-2 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
WJ1-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
ZZYY2-1-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
HZFY4-1-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
AG1IA-05500 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
AH3 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
HZFY5-2-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
FM1-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
FM2-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
SY1-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
SY5-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
WC2-1 (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								
Consensus (175)	TGCCCCAACTTGTGGTTCTGGAACAAGGACACCAACTGCTGTGCCCC	T	CGGTACACTCCCCCTTACAACCAGCCATCGTGCAGCAAC								

	(262)	262	270	280	290	300	310	320	330	348
AG1IA (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	Y	GATTGTGGCGM	CAACAAATGG					
CC7-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	Y	GATTGTGGCGM	CAACAAATGG					
NJ1-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	Y	GATTGTGGCGM	CAACAAATGG					
NJ2-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	Y	GATTGTGGCGM	CAACAAATGG					
ZZYY3-1-2 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	Y	GATTGTGGCGM	CAACAAATGG					
CC2-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	Y	GATTGTGGCGM	CAACAAATGG					
CQ3-2 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	T	GATTGTGGCGA	CAACAAATGG					
FJ6 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	T	GATTGTGGCGA	CAACAAATGG					
FJ7-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	T	GATTGTGGCGA	CAACAAATGG					
GD3-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	C	GATTGTGGCGA	CAACAAATGG					
GZ4-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	C	GATTGTGGCGM	CAACAAATGG					
GZ8-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	C	GATTGTGGCGM	CAACAAATGG					
HB1-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	C	GATTGTGGCGM	CAACAAATGG					
MA-1-1-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	C	GATTGTGGCGA	CAACAAATGG					
MB-2-1-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	C	GATTGTGGCGA	CAACAAATGG					
HN2-2 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	T	GATTGTGGCGA	CAACAAATGG					
WJ1-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	T	GATTGTGGCGA	CAACAAATGG					
ZZYY2-1-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	T	GATTGTGGCGA	CAACAAATGG					
HZFY4-1-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	T	GATTGTGGCGA	CAACAAATGG					
AG1IA-05500 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	C	GATTGTGGCGC	CAACAAATGG					
AH3 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	C	GATTGTGGCGC	CAACAAATGG					
HZFY5-2-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	C	GATTGTGGCGC	CAACAAATGG					
FM1-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	C	GATTGTGGCGC	CAACAAATGG					
FM2-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	C	GATTGTGGCGC	CAACAAATGG					
SY1-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	C	GATTGTGGCGC	CAACAAATGG					
SY5-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	C	GATTGTGGCGC	CAACAAATGG					
WC2-1 (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAA	C	GATTGTGGCGC	CAACAAATGG					
Consensus (262)		GGATGGGTCTGGAATCCCAGCACATACTCTTGTGCGCCGCCTGCTACACCCCCACCAAAGAACAAC		GATTGTGGCG	CAACAAATGG					

	(349)	349	360	370	380	390	400	410	420	435
AG1IA (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
CC7-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
NJ1-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
NJ2-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
ZZYY3-1-2 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
CC2-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
CQ3-2 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
FJ6 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
FJ7-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
GD3-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
GZ4-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
GZ8-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
HB1-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
MA-1-1-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
MB-2-1-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
HN2-2 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
WJ1-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
ZZYY2-1-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT	M	CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
HZFY4-1-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
AG1IA-05500 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
AH3 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
HZFY5-2-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
FM1-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
FM2-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
SY1-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
SY5-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
WC2-1 (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG
Consensus (349)		TGGTGGGGTGGT	CGCTCTTGCTGTCTTCCT		CACGGAAACCCATCGCCGCCGCTCCCTCCTCGCGG		AAACA	ACTGCC	CA	CCAGTTGG

	(436)	436	450	460	470	480	490	500	510	522
AG1IA (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
CC7-1 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
NJ1-1 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
NJ2-1 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
ZZYY3-1-2 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
CC2-1 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
CQ3-2 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
FJ6 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
FJ7-1 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
GD3-1 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
GZ4-1 (436)		TACTGGCATGGACAACAAGGCTGY	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
GZ8-1 (436)		TACTGGCATGGACAACAAGGCTGY	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
HB1-1 (436)		TACTGGCATGGACAACAAGGCTGY	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
MA-1-1-1 (436)		TACTGGCATGGACAACAAGGCTGY	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
MB-2-1-1 (436)		TACTGGCATGGACAACAAGGCTGT	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
HN2-2 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
WJ1-1 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
ZZYY2-1-1 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
HZFY4-1-1 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
AG1IA-05500 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
AH3 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
HZFY5-2-1 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
FM1-1 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
FM2-1 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
SY1-1 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
SY5-1 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
WC2-1 (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							
Consensus (436)		TACTGGCATGGACAACAAGGCTGC	TGTGTACCTCAGCACCCCTCCACCAACGCCTGTTCCGTCTTGCCCTCCCAACTGGGAGTGGAAC							

	(523)	523	530	540	550	560	570	580	590	609
AG1IA (523)		CCTTACACCCAATGCTGCAAGCCTAC	YCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
CC7-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	YCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
NJ1-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	YCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
NJ2-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	YCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
ZZYY3-1-2 (523)		CCTTACACCCAATGCTGCAAGCCTAC	YCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
CC2-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
CQ3-2 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCC	TCCCTAC	YCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
FJ6 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
FJ7-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
GD3-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCC	TCCCTAC	YCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
GZ4-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCY	TCCCTAC	TCCACC	YGGCCCCAACCAGCAAGCGCGCTACTA	STGA	KACCAAGCGCCAC		
GZ8-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCY	TCCCTAC	TCCACC	YGGCCCCAACCAGCAAGCGCGCTACTA	STGA	KACCAAGCGCCAC		
HB1-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCY	TCCCTAC	TCCACC	YGGCCCCAACCAGCAAGCGCGCTACTA	STGA	KACCAAGCGCCAC		
MA-1-1-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCY	TCCCTAC	YCCACC	YGGCCCCAACCAGCAAGCGCGCTACTA	STGA	KACCAAGCGCCAC		
MB-2-1-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCC	TCCCTAC	TCCACC	CGGCCCCAACCAGCAAGCGCGCTACTA	GTGA	GACCAAGCGCCAC		
HN2-2 (523)		CCTTACACCCAATGCTGCAAGCCTAC	TCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
WJ1-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	YCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
ZZYY2-1-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	YCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
HZFY4-1-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
AG1IA-05500 (523)		CCTTACACCCAATGCTGCAAGCCTAC	TCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
AH3 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
HZFY5-2-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
FM1-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
FM2-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
SY1-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
SY5-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
WC2-1 (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		
Consensus (523)		CCTTACACCCAATGCTGCAAGCCTAC	CCC	TCCCTAC	TCCACC	TGGCCCCAACCAGCAAGCGCGCTACTA	CTGA	TACCAAGCGCCAC		

	(610)	610	620	630	640	650	660	670	680	696
AG1IA (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			GACTGC	CCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC			
CC7-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			GACTGC	CCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC			
NJ1-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			GACTGC	CCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC			
NJ2-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			GACTGC	CCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC			
ZZYY3-1-2 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			GACTGC	CCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC			
CC2-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			GACTGC	CCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC			
CQ3-2 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			GACTGC	YCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC			
FJ6 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			GACTGC	YCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC			
FJ7-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			GACTGC	YCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC			
GD3-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			GACTGC	TCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC			
GZ4-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			R	ACTG	YCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC		
GZ8-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			R	ACTG	YCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC		
HB1-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			R	ACTG	TCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC		
MA-1-1-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			G	ACTG	TCAGTACACCGA	R	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC	
MB-2-1-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			A	ACTG	TCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC		
HN2-2 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			G	ACTG	CCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC		
WJ1-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			G	ACTG	CCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC		
ZZYY2-1-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			G	ACTG	CCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC		
HZFY4-1-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			G	ACTG	CCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC		
AG1IA-05500 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			G	ACTG	CCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC		
AH3 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			G	ACTG	YCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC		
HZFY5-2-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			G	ACTG	YCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC		
FM1-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			G	ACTG	CCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC		
FM2-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			G	ACTG	CCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC		
SY1-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			G	ACTG	CCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC		
SY5-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			G	ACTG	CCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC		
WC2-1 (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			G	ACTG	CCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC		
Consensus (610)		AATGCTGTCCCTCAGCACAAGAAGAAGGC			G	ACTG	CCAGTACACCGA	GCTCGAGGCTTTCTTCTGCCCCGCGGGCATGACCGCTTGC		

	(697) 697	710	720	730	740	750	760	770	783
AG1IA (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
CC7-1 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
NJ1-1 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
NJ2-1 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
ZZYY3-1-2 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
CC2-1 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
CQ3-2 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
FJ6 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
FJ7-1 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
GD3-1 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
GZ4-1 (697)	CCTATCGG	SGGR	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
GZ8-1 (697)	CCTATCGG	SGGR	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
HB1-1 (697)	CCTATCGG	SGGR	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
MA-1-1-1 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
MB-2-1-1 (697)	CCTATCGG	GGGA	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
HN2-2 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
WJ1-1 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
ZZYY2-1-1 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
HZFY4-1-1 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
AG1IA-05500 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
AH3 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
HZFY5-2-1 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
FM1-1 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
FM2-1 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
SY1-1 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
SY5-1 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
WC2-1 (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					
Consensus (697)	CCTATCGG	CGGG	ATCTTCAGCACC	GAGTCTGAATGCTTCGATACGCTTTCCGACCTGAAATCCTTGCGGAGGTTGCGCTTCGGTGGGC					

	(784)	784	790	800	810	820	830	840	850	860	870
AG1IA (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
CC7-1 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
NJ1-1 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
NJ2-1 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
ZZYY3-1-2 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
CC2-1 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
CQ3-2 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
FJ6 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		YACTGTCTTGTCTTGCAACGAAGGT		
FJ7-1 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		YACTGTCTTGTCTTGCAACGAAGGT		
GD3-1 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		YACTGTCTTGTCTTGCAACGAAGGT		
GZ4-1 (784)		GCTGGR	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		WCCTGTCTTGTCTTGCAACGAAGGT		
GZ8-1 (784)		GCTGGR	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		WCCTGTCTTGTCTTGCAACGAAGGT		
HB1-1 (784)		GCTGGR	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		WCCTGTCTTGTCTTGCAACGAAGGT		
MA-1-1-1 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
MB-2-1-1 (784)		GCTGGR	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		YACTGTCTTGTCTTGCAACGAAGGT		
HN2-2 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
WJ1-1 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
ZZYY2-1-1 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
HZFY4-1-1 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
AG1IA-05500 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
AH3 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
HZFY5-2-1 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
FM1-1 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
FM2-1 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
SY1-1 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
SY5-1 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
WC2-1 (784)		GCTGGA	CAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC				GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		
Consensus (784)		GCTGGACAAGATTGCTCTGCGATCCCCAACGTTAGCGTCTCGTC					GTGCGAGAGCGGCGGTTG		CACTGTCTTGTCTTGCAACGAAGGT		

	(871)	871	880	890	900	912
AG1IA (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
CC7-1 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
NJ1-1 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
NJ2-1 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
ZZYY3-1-2 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
CC2-1 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
CQ3-2 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
FJ6 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
FJ7-1 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
GD3-1 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
GZ4-1 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
GZ8-1 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
HB1-1 (871)	TATACC	R	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
MA-1-1-1 (871)	TATACC	R	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
MB-2-1-1 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
HN2-2 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
WJ1-1 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
ZZYY2-1-1 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
HZFY4-1-1 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
AG1IA-05500 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
AH3 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
HZFY5-2-1 (871)	TATACC	R	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
FM1-1 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
FM2-1 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
SY1-1 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
SY5-1 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
WC2-1 (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	
Consensus (871)	TATACC	G	TTAGCGAAGACAAA	CAATCGTGCGTTGCC	ATCTAA	