

	1	10	20	30	40	50	60
lac1338	M	N	R	R	D	F	L
4F7K_A	V	T	T	S	A	A	T
WP_106610581.1	L	F	P	R	I	A	L
WP_035257147.1	A	S	A	P	V	E	L
WP_058289265.1	V	A	Q	P	V	N	A
WP_054463654.1	I	L	P	E	G	E	P
MBA84203.1	A	T	P	M	L	G	F
MBT24881.1	N	G	G	T	P	G	P
OIQ43611.1	V	L	R				
WP_167685249.1							

	70	80	90	100	110	120
lac1338	A	R	Q	G	E	V
4F7K_A	F	D	I	R	F	Q
WP_106610581.1	N	Q	I	G	E	G
WP_035257147.1	S	A	V	H	W	H
WP_058289265.1	G	L	R	I	D	N
WP_054463654.1	A	M	D	G	V	P
MBA84203.1	G	M	T	Q	D	V
MBT24881.1	V	E	A	G	E	F
OIQ43611.1	E	A	G	E	F	E
WP_167685249.1						

	130	140	150	160	170	180
lac1338	F	W	Y	H	S	H
4F7K_A	N	R	S	W	E	Q
WP_106610581.1	V	A	K	G	L	Y
WP_035257147.1	G	P	L	I	V	E
WP_058289265.1	E	P	T	P	D	V
WP_054463654.1	D	L	I	M	I	D
MBA84203.1	D	W	R	I	T	E
MBT24881.1	N	G	V	E	A	G
OIQ43611.1	E	A	G	E	F	E
WP_167685249.1						

	190	200	210	220	230	240
lac1338	A	H	Q	G	R	I
4F7K_A	G	N	F	A	R	A
WP_106610581.1	L	V	E	P	V	T
WP_035257147.1	P	V	R	R	G	D
WP_058289265.1	R	L	R	L	I	N
WP_054463654.1	V	A	T	D	R	I
MBA84203.1	F	P	V	E	L	E
MBT24881.1	G	V	E	G	K	V
OIQ43611.1	V	A	L	D	G	M
WP_167685249.1	P	I	V	D		

	250	260	270	280	290	300
lac1338	P	Q	E	F	S	G
4F7K_A	L	I	L	A	P	A
WP_106610581.1	Q	R	A	D	I	I
WP_035257147.1	A	D	V	I	T	D
WP_058289265.1	A	P	I	G	F	V
WP_054463654.1	P	T	R	D	G	P
MBA84203.1	Y	L	L	G	E	I
MBT24881.1	P	V	K	G	A	N
OIQ43611.1	T	R	O	P	S	E
WP_167685249.1	I	P	A	L		

	310	320	330	340	350	360
lac1338	P	P	N	E	V	T
4F7K_A	S	P	D	M	G	S
WP_106610581.1	A	V	S	L	T	L
WP_035257147.1	T	M	E	G	G	A
WP_058289265.1	M	S	R	R	M	Q
WP_054463654.1	G	M	M	G	G	D
MBA84203.1	I	W	A	F	N	G
MBT24881.1	Q	S	G	L	T	D
OIQ43611.1	T	P	L	S	F	E
WP_167685249.1	R	G	O	T		

	370	380	390	400	410	420																																																				
lac1338	ARI	R	I	V	N	D	T	R	F	P	H	G	I	H	L	H	G	H	H	F	F	E	V	G	A	D	G	N	L	G	A	L	R	D	T	T	L	V	D	A	G	E	T	R	D	I	V	C	V	F	D	N	P	G	N	W	L	L
4F7K_A	ARI	R	I	V	N	D	T	R	F	P	H	G	I	H	L	H	G	H	H	F	F	E	V	G	A	D	G	N	L	G	A	L	R	D	T	T	L	V	D	A	G	E	T	R	D	I	V	C	V	F	D	N	P	G	N	W	L	L
WP_106610581.1	ARI	R	I	V	N	D	T	R	F	P	H	G	I	H	L	H	G	H	H	F	F	E	L	G	L	D	G	S	Q	G	A	F	R	D	T	T	L	V	D	A	G	K	S	R	D	I	V	C	V	F	D	N	P	G	R	W	L	L
WP_035257147.1	ARI	R	I	V	N	D	T	R	F	P	H	G	I	H	L	H	G	H	H	F	F	E	V	G	A	D	G	N	L	G	A	L	R	D	T	T	L	V	D	A	E	T	R	D	I	V	C	V	F	G	N	P	G	R	W	L	L	
WP_058289265.1	ARI	R	I	V	N	D	T	R	F	P	H	G	I	H	L	H	G	H	H	F	F	E	V	R	A	D	N	N	L	G	A	F	R	D	T	T	L	V	D	A	G	E	A	R	D	I	V	C	V	F	D	N	P	G	K	W	L	L
WP_054463654.1	ARI	R	I	V	N	D	T	S	F	A	H	G	I	H	L	H	G	H	H	F	F	E	V	E	A	D	G	D	L	G	A	L	R	D	T	T	L	V	D	A	G	E	T	R	D	I	V	C	V	F	D	N	P	G	R	W	L	L
MBA84203.1	ARI	R	I	V	N	D	T	R	F	P	H	G	I	H	L	H	G	H	H	F	F	E	V	E	T	D	G	T	L	G	A	L	R	D	T	T	L	V	D	A	G	E	S	R	D	I	V	C	V	F	D	N	P	G	K	W	L	L
MBT24881.1	ARI	R	I	V	N	D	T	R	F	P	H	G	I	H	L	H	G	H	H	F	F	E	V	E	T	D	G	T	L	G	A	L	R	D	T	T	L	V	D	A	G	E	S	R	D	I	V	C	V	F	D	N	P	G	K	W	L	L
OIQ43611.1	ARI	R	I	V	N	D	T	R	F	A	H	G	I	H	L	H	G	H	H	F	F	E	V	G	G	D	S	L	G	A	F	R	D	T	T	L	V	E	P	G	E	T	R	D	I	V	C	V	F	D	N	P	G	K	W	L	L	
WP_167685249.1	ARI	S	M	V	N	D	T	R	F	P	H	G	I	H	L	H	G	H	H	F	F	E	V	Q	A	D	G	M	L	G	A	F	R	D	T	T	L	V	T	P	G	E	T	R	D	I	L	C	I	F	D	N	P	G	K	W	L	L

	430
lac1338	HCHMLGHQAAGMKTWVEVA.....
4F7K_A	HCHMLGHQAAGMKTWVEVALEHHHHHH
WP_106610581.1	HCHMLGHQAAGMKTWVEVV.....
WP_035257147.1	HCHMLGHQAAGMKTWVEVA.....
WP_058289265.1	HCHMLGHQAAGMKTWVEVA.....
WP_054463654.1	HCHMLGHQAAGMKTWVEVV.....
MBA84203.1	HCHMLGHQAAGMKTWVQVT.....
MBT24881.1	HCHMLGHQAAGMKTWVQVT.....
OIQ43611.1	HCHMLGHQAAGMKTWVEVV.....
WP_167685249.1	HCHMLGHQAAGMKTWLEVS.....