

		20		40	
atp1_GM10_DNA-2	ATGGAATTCT	CACCCAGAGC	TGCGGAACTC	ACGACTCTAT	TAGAAAGTAG
Translation +1	M E F S P R A	A E L T T L	L E S R		50
atp1 GM CONTROL-2	.....	.....	T	.....	50
Translation +1	M E F S P R A	A E L T T L	L E S R		50
atp1 GM 2h	.....	.....	T	.....	50
Translation +1	M E F S P R A	A E L T T L	L E S R		50
atp1 GM12H	.....	.....	T	.....	50
Translation +1	M E F S P R A	A E L T T L	L E S R		50
		60		80	
atp1_GM10_DNA-2	AATGACCAAC	TTTTACACGA	ATTTTCAAGT	GGATGAGATC	GGTCGAGTGG
Translation +1	M T N F Y T	N F Q V D E I	G R V		100
atp1 GM CONTROL-2	.....	.....	.....	.....	100
Translation +1	M T N F Y T	N F Q V D E I	G R V		100
atp1 GM 2h	.....	.....	.....	.....	100
Translation +1	M T N F Y T	N F Q V D E I	G R V		100
atp1 GM12H	.....	.....	.....	.....	100
Translation +1	M T N F Y T	N F Q V D E I	G R V		100
		120		140	
atp1_GM10_DNA-2	TCTCAGTTGG	AGATGGGATT	GCACGTGTTT	ATGGATTGAA	CGAGATTCAA
Translation +1	V S V G D G I	A R V Y G L N E I Q			150
atp1 GM CONTROL-2	.....	.....	.....	.....	150
Translation +1	V S V G D G I	A R V Y G L N E I Q			150
atp1 GM 2h	.....	.....	.....	.....	150
Translation +1	V S V G D G I	A R V Y G L N E I Q			150
atp1 GM12H	.....	.....	.....	.....	150
Translation +1	V S V G D G I	A R V Y G L N E I Q			150
		160		180	
atp1_GM10_DNA-2	GCAGGAGAAA	TGGTGGAAATT	TGCCAGCGGT	GTGAAAGGAA	TCGCCTTAAA
Translation +1	A G E M V E F	A S G V K G I A L N			200
atp1 GM CONTROL-2	.....	.....	.....	.....	200
Translation +1	A G E M V E F	A S G V K G I A L N			200
atp1 GM 2h	.....	.....	.....	.....	200
Translation +1	A G E M V E F	A S G V K G I A L N			200
atp1 GM12H	.....	.....	.....	.....	200
Translation +1	A G E M V E F	A S G V K G I A L N			200
		220		240	
atp1_GM10_DNA-2	TCTTGAGAAT	GAGAATGTAG	GTATTGTTGT	CTTGGTAGT	GATACCGCTA
Translation +1	L E N E N V G	I V V F G S D T A			250
atp1 GM CONTROL-2	.....	.....	.....	.....	250
Translation +1	L E N E N V G	I V V F G S D T A			250
atp1 GM 2h	.....	.....	.....	.....	250
Translation +1	L E N E N V G	I V V F G S D T A			250
atp1 GM12H	.....	.....	.....	.....	250
Translation +1	L E N E N V G	I V V F G S D T A			250
		260		280	
atp1_GM10_DNA-2	TTAAAGAAGG	AGATCTTGTC	AAGCGCACTG	GATCTATTGT	GGATGTTCC
Translation +1	I K E G D L V K R T G S I V D V P				300
atp1 GM CONTROL-2	.....	.....	.....	.....	300
Translation +1	I K E G D L V K R T G S I V D V P				300
atp1 GM 2h	.....	.....	.....	.....	300
Translation +1	I K E G D L V K R T G S I V D V P				300
atp1 GM12H	.....	.....	.....	.....	300
Translation +1	I K E G D L V K R T G S I V D V P				300
		320		340	
atp1_GM10_DNA-2	GCGGGAAAGG	CCATGTTAGG	CCGTGTGGTC	GACGCCCTGG	GAGTACCTAT
Translation +1	A G K A M L G R V V D A L G V P I				350
atp1 GM CONTROL-2	.....	.....	.....	.....	350
Translation +1	A G K A M L G R V V D A L G V P I				350
atp1 GM 2h	.....	.....	.....	.....	350
Translation +1	A G K A M L G R V V D A L G V P I				350
atp1 GM12H	.....	.....	.....	.....	350
Translation +1	A G K A M L G R V V D A L G V P I				350

	360	380	400			
atp1_GM10_DNA-2	TGATGGAAAA	GGGGCTCTAA	GCGATCACGA	ACGAAGACGT	GTCGAAGTGA	400
Translation +1	D G K	G A L S D H E	R R R	V E V		
atp1 GM CONTROL-2	.....	.....	.....	.....	.....	400
Translation +1	D G K	G A L S D H E	R R R	V E V		
atp1 GM 2h	.....	.....	.....	.....	.....	400
Translation +1	D G K	G A L S D H E	R R R	V E V		
atp1 GM12H	.....	.....	.....	.....	.....	400
Translation +1	D G K	G A L S D H E	R R R	V E V		
	420	440				
atp1_GM10_DNA-2	AAGCCCCAGG	GATTATTGAA	CGTAAATCTG	TGCACGAACC	CATGCAAACA	450
Translation +1	K A P G I I E	R K S	V H E P	M Q T		
atp1 GM CONTROL-2	.....	.....	.....	.....	.....	450
Translation +1	K A P G I I E	R K S	V H E P	M Q T		
atp1 GM 2h	.....	.....	.....	.....	.....	450
Translation +1	K A P G I I E	R K S	V H E P	M Q T		
atp1 GM12H	.....	.....	.....	.....	.....	450
Translation +1	K A P G I I E	R K S	V H E P	M Q T		
	460	480	500			
atp1_GM10_DNA-2	GGCTTAAAG	CAGTGGATAG	CCTGGTTCCCT	ATAGGCCGTG	GTCAACGAGA	500
Translation +1	G L K A V D S	L V P	I G R	G Q R E		
atp1 GM CONTROL-2	.....	.....	.....	.....	.....	500
Translation +1	G L K A V D S	L V P	I G R	G Q R E		
atp1 GM 2h	.....	.....	.....	.....	.....	500
Translation +1	G L K A V D S	L V P	I G R	G Q R E		
atp1 GM12H	.....	.....	.....	.....	.....	500
Translation +1	G L K A V D S	L V P	I G R	G Q R E		
	520	540				
atp1_GM10_DNA-2	ACTTATAATC	GGGGACAGAC	AAACTGGAAA	AACTGCAATA	GCTATCGATA	550
Translation +1	L I I G D R Q T G K	T A I A I D				
atp1 GM CONTROL-2	.....	.....	.....	.....	.....	550
Translation +1	L I I G D R Q T G K	T A I A I D				
atp1 GM 2h	.....	.....	.....	.....	.....	550
Translation +1	L I I G D R Q T G K	T A I A I D				
atp1 GM12H	.....	.....	.....	.....	.....	550
Translation +1	L I I G D R Q T G K	T A I A I D				
	560	580	600			
atp1_GM10_DNA-2	CTATATTAAG	CCAAAAGCAA	ATGAACTCAA	GGGGCACACAA	TGAGAGTGAG	600
Translation +1	T I L N Q K Q M N S	R G T N E S E				
atp1 GM CONTROL-2	.....	.....	.....	.....	.....	600
Translation +1	T I L N Q K Q M N S	R G T N E S E				
atp1 GM 2h	.....	.....	.....	.....	.....	600
Translation +1	T I L N Q K Q M N S	R G T N E S E				
atp1 GM12H	.....	.....	.....	.....	.....	600
Translation +1	T I L N Q K Q M N S	R G T N E S E				
	620	640				
atp1_GM10_DNA-2	ACATTGTATT	GTGCTCTATGT	TGCGATTGGA	CAAAAACGCT	CGACTGTGGC	650
Translation +1	T L Y C V Y V A I G	Q K R S T V A				
atp1 GM CONTROL-2	.....	.....	.....	.....	.....	650
Translation +1	T L Y C V Y V A I G	Q K R S T V A				
atp1 GM 2h	.....	.....	.....	.....	.....	650
Translation +1	T L Y C V Y V A I G	Q K R S T V A				
atp1 GM12H	.....	.....	.....	.....	.....	650
Translation +1	T L Y C V Y V A I G	Q K R S T V A				
	660	680	700			
atp1_GM10_DNA-2	ACAATTAGTT	CAAATTCTTT	CAGAACCGAA	TGCTTTGGAA	TATTCATTC	700
Translation +1	Q L V Q I L S E A N A L E Y S I					
atp1 GM CONTROL-2	.....	.....	.....	.....	.....	700
Translation +1	Q L V Q I L S E A N A L E Y S I					
atp1 GM 2h	.....	.....	.....	.....	.....	700
Translation +1	Q L V Q I L S E A N A L E Y S I					
atp1 GM12H	.....	.....	.....	.....	.....	700
Translation +1	Q L V Q I L S E A N A L E Y S I					

atp1_GM10_DNA-2 TTGTAGCAGC CACCGCTTCG GATCCTGCTC CTCTGCAATT TCTGGCCCCA 750
 Translation +1 L V A A T A S D P A P L Q F L A P
 atp1 GM CONTROL-2 750
 Translation +1 L V A A T A S D P A P L Q F L A P
 atp1 GM 2h 750
 Translation +1 L V A A T A S D P A P L Q F L A P
 atp1 GM12H 750
 Translation +1 L V A A T A S D P A P L Q F L A P

760 780 800
 atp1_GM10_DNA-2 TATTCAGGGT GTGCCATGGG GGAATATTC CGCGATAATG GAATGCACGC 800
 Translation +1 Y S G C A M G E Y F R D N G M H A
 atp1 GM CONTROL-2 800
 Translation +1 Y S G C A M G E Y F R D N G M H A
 atp1 GM 2h 800
 Translation +1 Y S G C A M G E Y F R D N G M H A
 atp1 GM12H 800
 Translation +1 Y S G C A M G E Y F R D N G M H A

820 840
 atp1_GM10_DNA-2 ATTAATTATA TATGATGATC TAAGTAAACA GGCGGTGGCA TATCGACAAA 850
 Translation +1 L I I Y D D L S K Q A V A Y R Q
 atp1 GM CONTROL-2 850
 Translation +1 L I I Y D D L S K Q A V A Y R Q
 atp1 GM 2h 850
 Translation +1 L I I Y D D L S K Q A V A Y R Q
 atp1 GM12H 850
 Translation +1 L I I Y D D L S K Q A V A Y R Q

860 880 900
 atp1_GM10_DNA-2 TGTCATTATT GTTACGCCGA CCACCAGGCC GTGAGGCTTT CCCAGGGAT 900
 Translation +1 M S L L L R R P P G R E A F P G D
 atp1 GM CONTROL-2 900
 Translation +1 M S L L L R R P P G R E A F P G D
 atp1 GM 2h 900
 Translation +1 M S L L L R R P P G R E A F P G D
 atp1 GM12H 900
 Translation +1 M S L L L R R P P G R E A F P G D

920 940
 atp1_GM10_DNA-2 GTTTCTATT TACATTCGG TCTCTTAGAA AGAGCCGCTA AACGATCGGA 950
 Translation +1 V F Y L H S R L L E R A A K R S D
 atp1 GM CONTROL-2 950
 Translation +1 V F Y L H S R L L E R A A K R S D
 atp1 GM 2h 950
 Translation +1 V F Y L H S R L L E R A A K R S D
 atp1 GM12H 950
 Translation +1 V F Y L H S R L L E R A A K R S D

960 980 1,000
 atp1_GM10_DNA-2 CCAGACAGGT GCAGGTAGCT CGACTGCGTT ACCCGTGATT GAGACTCAAT 1000
 Translation +1 Q T G A G S S T A L P V I E T Q
 atp1 GM CONTROL-2 1000
 Translation +1 Q T G A G S L T A L P V I E T Q
 atp1 GM 2h 1000
 Translation +1 Q T G A G S L T A L P V I E T Q
 atp1 GM12H 1000
 Translation +1 Q T G A G S L T A L P V I E T Q

1,020 1,040
 atp1_GM10_DNA-2 CTGGAGACGT TTCCGCCTAT ATTCCCTACTA ATGTAATCTC CATTACAGAT 1050
 Translation +1 S G D V S A Y I P T N V I S I T D
 atp1 GM CONTROL-2 1050
 Translation +1 S G D V S A Y I P T N V I S I T D
 atp1 GM 2h 1050
 Translation +1 S G D V S A Y I P T N V I S I T D
 atp1 GM12H 1050
 Translation +1 S G D V S A Y I P T N V I S I T D

atp1_GM10_DNA-2 **GGACAAATCT** GTTGGAAAC AGAGCTCTTT TATCGCGGAA TTAGACCAGC 1100
 Translation +1 G Q I C L E T E L F Y R G I R P A
 atp1 GM CONTROL-2 1100
 Translation +1 G Q I C L E T E L F Y R G I R P A
 atp1 GM 2h 1100
 Translation +1 G Q I C L E T E L F Y R G I R P A
 atp1 GM12H 1100
 Translation +1 G Q I C L E T E L F Y R G I R P A

1,060 1,080 1,100

atp1_GM10_DNA-2 **TATTAACGTT** GGCTTATCCG TCAGTCGCGT CGGGTCTGCC GCTCAGTTGA 1150
 Translation +1 I N V G L S V S R V G S A A Q L
 atp1 GM CONTROL-2 1150
 Translation +1 I N V G L S V S R V G S A A Q L
 atp1 GM 2h 1150
 Translation +1 I N V G L S V S R V G S A A Q L
 atp1 GM12H 1150
 Translation +1 I N V G L S V S R V G S A A Q L

1,120 1,140

atp1_GM10_DNA-2 **AAGCTATGAA** ACAAGTCTGC GGTAGTTCAA AACTGGAATT GGCACAATAT 1200
 Translation +1 K A M K Q V C G S S K L E L A Q Y
 atp1 GM CONTROL-2 1200
 Translation +1 K A M K Q V C G S L K L E L A Q Y
 atp1 GM 2h 1200
 Translation +1 K A M K Q V C G S L K L E L A Q Y
 atp1 GM12H 1200
 Translation +1 K A M K Q V C G S L K L E L A Q Y

1,160 1,180 1,200

atp1_GM10_DNA-2 **CGCGAAGTGG** CCGCCTTCGC TCAATTGGG TCAGACCTTG ATGCTGCGAC 1250
 Translation +1 R E V A A F A Q F G S D L D A A T
 atp1 GM CONTROL-2 1250
 Translation +1 R E V A A F A Q F G S D L D A A T
 atp1 GM 2h 1250
 Translation +1 R E V A A F A Q F G S D L D A A T
 atp1 GM12H 1250
 Translation +1 R E V A A F A Q F G S D L D A A T

1,220 1,240

atp1_GM10_DNA-2 **TCAGGCAATTA** CTCAATAGAG GTGCAAGGCT TACAGAAAGTG CCCAAACAAC 1300
 Translation +1 Q A L L N R G A R L T E V P K Q
 atp1 GM CONTROL-2 1300
 Translation +1 Q A L L N R G A R L T E V L K Q
 atp1 GM 2h 1300
 Translation +1 Q A L L N R G A R L T E V L K Q
 atp1 GM12H 1300
 Translation +1 Q A L L N R G A R L T E V L K Q

1,260 1,280 1,300

atp1_GM10_DNA-2 **CACAATATGA** ACCACTTCCA ATTGAAAAAC AAATTGTGT GATTATGCT 1350
 Translation +1 P Q Y E P L P I E K Q I V V I Y A
 atp1 GM CONTROL-2 1350
 Translation +1 P Q Y E P L P I E K Q I V V I Y A
 atp1 GM 2h 1350
 Translation +1 P Q Y E P L P I E K Q I V V I Y A
 atp1 GM12H 1350
 Translation +1 P Q Y E P L P I E K Q I V V I Y A

1,320 1,340

atp1_GM10_DNA-2 **GCTGTCAACG** GCTTCTGTGA TCGAATGCCA CTAGACAGAA TTTCTCAATA 1400
 Translation +1 A V N G F C D R M P L D R I S Q Y
 atp1 GM CONTROL-2 1400
 Translation +1 A V N G F C D R M P L D R I S Q Y
 atp1 GM 2h 1400
 Translation +1 A V N G F C D R M P L D R I S Q Y
 atp1 GM12H 1400
 Translation +1 A V N G F C D R M P L D R I S Q Y

1,360 1,380 1,400

	1,420		1,440			
atp1_GM10_DNA-2	TGAAAAAGCC	ATTCTAAGTA	CTATTAATCC	AGAATTACAA	AAATCCTTCT	1450
Translation +1	E K A	I L S	T I N P	E L Q	K S F	
atp1 GM CONTROL-2	.....	.....	.....	.....	.....	1450
Translation +1	E K A	I L S	T I N P	E L Q	K S F	
atp1 GM 2h	.....	.....	.....	.....	.....	1450
Translation +1	E K A	I L S	T I N P	E L Q	K S F	
atp1 GM12H	.....	.....	.....	.....	.....	1450
Translation +1	E K A	I L S	T I N P	E L Q	K S F	
	1,460		1,480		1,500	
atp1_GM10_DNA-2	TAGAAAAAGG	TGGCTTAACT	AACGAAAGAA	AGATGGAACC	AGATGCTTCT	1500
Translation +1	L E K G	G L T	N E R	K M E P	D A S	
atp1 GM CONTROL-2	.....	.....	.....	.....	.....	1500
Translation +1	L E K G	G L T	N E R	K M E L	D A F	
atp1 GM 2h	.....	.....	.....	.....	.....	1500
Translation +1	L E K G	G L T	N E R	K M E L	D A F	
atp1 GM12H	.....	.....	.....	.....	.....	1500
Translation +1	L E K G	G L T	N E R	K M E L	D A F	
	1,520					
atp1_GM10_DNA-2	TTAAAAGAAA	GCACTTTGCC	TTACCTGTGA	1530		
Translation +1	L K E	S T L P	Y L *			
atp1 GM CONTROL-2	.....	.....	.....	1530		
Translation +1	L K E	S T L P	Y L *			
atp1 GM 2h	.....	.....	.....	1530		
Translation +1	L K E	S T L P	Y L *			
atp1 GM12H	.....	.....	.....	1530		
Translation +1	L K E	S T L P	Y L *			