JF451938. Muguga	1 MATSIAFAADPGFCYFLLIPGPDSKPIFFKNDGDKFLR(VGYPKVKEEMIEMATKFNRLPKGVEIPAPPGVKPEAPTPTTTTPSVPPT 90	
JF451939. Kiambu	1 MATSIAFAADPGFCYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEEMIEMATKFNRLPKGVEIPAPPGVKPEAPTPTTTTPSVPPT 90	
JF451940. Serengeti	1 MATSIAFAADPGFCYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEEMIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
Nyakizu B66	1 MATSIAFAADPGFCYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEEMIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW1	1 MATSIAFAADPGFCYFLLIPGPDSKPIFFKNDGDKFLRUVGYPKVKEEMIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW3	1 MATSIAFAADPGFCYFLLIPGPDSKPIFFKNDGDKFLRUVGYPKVKEEMIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW4	1 MATSIAFACDPGFCYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEEMIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW5	1 MATSIAFACDPGFWYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEEMIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW6	1 MATSIAFAADPGFCYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEEMIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW7	1 MATSIAFARDPGFCYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEEMIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW8	1 MATSIAFAADPGFCYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEEMIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW9	1 MATSIAFACDPGFCYFILIPGPDSKPIFFKNDGDKFLRCVGYPKVKEEMIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW13	1 MATSIAFACDPGTCYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEEMIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW14	1 MATSIAFAADPGFCYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEEMIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW17	1 MATSIAFAADPGFCYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEEMIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
Gikongoro R₩1	1 MATSIAFAADPGFCYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEEMLEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW19	1 MATSIAFAADPGFCYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEEMIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW10	1 MATSIAFACDPGFCYFLIIPGPDSKPIFFKNDGDKFLRUVGYPKVKEELIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW11	1 MATSIAFAADPGFCYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEE <mark>II</mark> EMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
JF451975 Chitongo Z2	1 MATSIAFAADPGFCYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEE <mark>II</mark> EMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW12	1 MATSIAFACDPGFCYFILIPGPDSKPIFFKNDGDKFLRCVGYPKVKEETIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW15	1 MATSIAFACDPGFCYFLLIPGPDSKPIFFKNDGDKFLRCVGYPKVKEE <mark>II</mark> EMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW16	1 MATSIAFACDPGFCYFLLIPGPDSKPIFFKNDGDKFLRUVGYPKVKEETIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	
RW18	1 MATSIAFAADPGFCYFLLIPGPDSKPIFFKNDGDKFLRUVGYPKVKEETIEMATKFNRLPKGVEIPAPPGVKPEAPTPTPTTITPSVPPT 90	

	CTL 03	
	CTL 01 CTL 02	
JF451861 muguga 73	1 MKLAARLISLYFIIMILHSEVLGGNOSHEELKKLGMLEGDGFDRDALFKSSHGMGKVGKRYGLKTTPKVDKVLADLETLFGKHGLGGISK 90	
JF451862 serengeti 69	1 MKLAARLISLYFIIYILHSEVLGGNOSLEELKKLGMLEGDGFDRDALFKSSHGMGKVGKRYGLKTTPKVDKVLADLETLFGKHGLGGISK 90	
Nyakizu T2	1 MKLAARLISLYFIIFILHSEVLGGNOSLEELKKLGMLEGDGFDRDALFKSSHGMGKVGKRCGLKTTPKVDKVLADLETLFGKHGLGGISK 90	
RW2	1 MKLAARLISLYFIINILHSEVLGGNOSLEELKKLGMLEGDGFDRDALFKSSHGMGKVGKRYGLKTTPKVDKVLADLETLFGKHGLGGISK 90	
RW17	1 MKLAARLISLYFIIFILHSEVLGGNOSTEELKKLGMLEGDGFDRDALFKSSHGMGKVGKRYGLKTTPKVDKVLADLETLFGKHGLGGISK 90	
RW9	1 MKLAARLISLYFIIFILHSEVLGGNOSTEELKKLGMLEGDGFDRDALFKSSHGMGKVGKRYGLKTTPKVDKVLADLETLFGKHGLGGISK 90	
RW13	1 MKLAARLISPFFIIFILHSPVLGGNOSLEELKKLGMLEGDGFDRDALFKSSHGMGKVGKRYGLKTTPKVDKVLADLETLFGKHGLGGISK 90	
RW1	1 MKLAARLISLYFIIFILHSSVMGGNOSHEELDTLGMLDCDCSDRNALFSSHGMGKVGKRYGLKPTPKVEKVLTDLAQLFTKLGLAGVGK 90	
RW8	1 MKLAARLISLYFIIFILPSSVLGGNCTBEELKKMGMVEGEGFDKEKLFKSSKSMGTVGRNHGLKPKPRLESVFEDLEKLFGKHGLGGISK 90	
RW3	1 MKLAARLISLYFIIFILPSSVLGGNCTBEELKKMCMVEGEGFDKEKLFKSSKSMGEVGRVHGLKPKPRLESVFEDLEKLFGKHGLGGISK 90	
RW16	1 MKLAARLISLYFIIFILPSSVLGGNCTEDELKKMCMVEGEGFDKEKLFKSSQSMGTVGRVHGLKPKPRLESVFEDLEKLFGKHGLGGISK 90	
Gikongoro RW1	1 MKLAARLISLYFIIFILHSEVLGGNOSDEELDKLGMLDCDGFDRNALFKSSHGMGKVGKRYGLKTTPKVDKVLADLETLFGKUGLAGISK 90	
JF451880 kiambu 5	1 MKLAARLISLYFIIYILHSEVLGGNCSDEELNKLGMLEGDGFDRDALFKSSHGMGKVGKRYGLKTTPKVDKVLADLETLFGKHGLGGISK 90	
RW14	1 MKLAARLISLYFIIFILHSEVLGGNCSDEELNKLGMLEGDGFDRDALFKSSHGMGKVGKRYGLKTTPKVDKVLEDLETLFGKHGLGGISK 90	
RW19	1 MKLAARLISLFFIIFILHSSVLGGNCSDEELNKLGMVECDGFDRNTLFFISSHGMGKVGKRYGLKPTPKVDKVLTDLETLFGKLGLAGISK 90	
RW18	1 MKLAARLISLYFIIFILPSSVLGGNCSDDELKKLGMVEGEGFDKDTLFKSSHGMGKIGRUHGLKPRUKTEKVFKDLEKLFGKHGLAGIGK 90	
RW5	1 MKLAARLISLYFIIFILPSSVLGGNQSDEELGYLGMVEGEGFDKDTLFKSSQSMGTVGRNHGLKPRPKTEKVFEDLEKLFGKHGLGGISK 90	
JF451884 chitongo Z2	1 MKLAARLISLYFIIFILPSSVLGGNQSDDELDTLGMLDKPDLDKNRLFITSHGMGRIGRYGIRPGTKTEKFLKELKKLFTEVGITGVGE 90	
RW6	1 MKLAARLISLFFIIFILPSSVLGGNCSDDELDTLGMLDKPDLDKNRLFITSHGMGRIGRYGIRPGTKTEKFLKELKKLFTEVGITGVGE 90	
RW11	1 MKLAARLISLFFIIFILPSSVLGGNQSDDELDTLGLLDKPDLDKNRLFITSHGMGKIGRREGIRPGTKTEKFLKELTKLFTEIGIIGVGE 90	
RW4	1 MKLAARLISLYFIIFILHSSVLGGN <mark>GSDNELDTLGLLDKPDL</mark> DKNRLF <mark>LT</mark> SHGMGKIGR <mark>FGIRPGTKTEKFLKEPT</mark> KLF TEIGITGVGE 90	
RW10	1 MKLAARLISLYFIIFILPSSVLGGNQSDNELDTLGLLDKPDLDKNRLFLTSHGMGKIGRREGIRPGTKTEKFLKELTKLFTEIGITGVGE 90	
RW12	1 MKLAARLISLFFIIFILPSSVLGGNQSDNELDTLGLLDKPDLDKNRLFLTSHGMGKIGRREGIRPGTKTEKFLKELTKLFTEIGIIGVGE 90	
RW7	1 MKLAARLISLYFIIFILPSSVLGGNOSDNELDTLGLLDKPDLDKNRLFLTSHGMGKIGRREGIRPGTKTEKFLKELTKLFTEIGIIGVGE 90	
RW15	1 MKLAARLISLYFIIFILPSSVLGGNOSDNEIDTLGMLDKPDLDKNRLFLTSHGMGKIGRREGIRPGTKTEKFLKEINKLFTEIGIIGVGE 90	

CTL 03

		CTL 04	5		CTL 06		
TF4610(1 mumuum 1/2	01				NUT ON DOUL		1.7.4
JF451861 muguga 73		~	~			KEDYLKYKFPETDEDES T KKGEASGTS KEDYLKYKFPETDEDES T KKGEASGTS	174 174
Nyakizu T2						KEDYLKYKFPETDEDES <mark>T</mark> KKGEASGTS	174
RW2						KEDYLKYKFPETDEDESTKKGEASGIS	174
RW17		100	1000			KEDYLKYKFPETDEDESTKKGEASGIS	174
RW17 RW9						KEDYLKYKFPETDEDE <mark>F</mark> QKKGEASGTS	174
RW13						KEDYLKYKFPETDEDES <mark>T</mark> KKGEASGTS	174
RW10 RW1						KEDYLK F KFPETDEDES <mark>P</mark> KKGEASGTS	174
RW8						KEDYLKYKIPETDEDESEKKGEASGTS	174
RW3						KEDYLKYKLPETDEDESEKKGEASGTS	174
RW16						KEDYLKYKLPETDEDESQKKGEASGTS	174
Gikongoro RW1						KEDYLKYKFPETDEDES <mark>K</mark> KKGEASG <mark>P</mark> S	174
JF451880 kiambu 5						KEDYLKYKFPETDEDES T KKGEASGTS	174
RW14		The second s				KEDYLKYKFPETDEDESTKKGEASGTS	174
RW19						KEDYLKYKFPETDEDES <mark>P</mark> KKGEASGTS	174
RW18	91	NCLTCFAQSLMCVIIK	CRGACLKGPCTD G CQ <mark>K</mark> C	INTNCKPALLECI	GK PD IPNPCKV	KEDYLKYKFPETDEDESQKKGEASGTS	174
RW5						KEDYLKYKFPETDEDESQKKGEASG <mark>P</mark> S	174
JF451884 chitongo Z2						K DA YLK F KLPET GEG ESEKKGEASGTS	174
RW6	91	KCLECFAASIKCVAQY	CKGACLKGPCTEDCQQC	IKSNCMDGLLECI	GKPSVPNPCDV	KDDYLKFKLPETGEAESEKKGEASGTS	174
RW11	91	KCLECLAASIMCVS.H	CKGACLKGPCTEDCQEC	IKRNCMEALLQCI	GKPSVPNPCDV	KDDYLKEKFPETGEDEAQKKGEASGTS	174
RW4	91	KCLECLAASIKCVS.H	C <mark>K</mark> GACLKGPCT <mark>EG</mark> CQ E C	I <mark>K</mark> RNC <mark>ME</mark> ALL <mark>Q</mark> CI	GKPSVPNPCDV	EDDYL <mark>RL</mark> KFPE <mark>RC</mark> EDE <mark>AQE</mark> KGEASGTS	174
RW10	91	KCLEC <mark>LAASIKCVS.</mark> HH	CKGACLKGPCT <mark>EG</mark> CQEC	I <mark>K</mark> RNC <mark>ME</mark> ALL <mark>Q</mark> CI	GKPSVPNPCDV	KDDYLKFKFPET <mark>G</mark> EDEAQKKGEASGTS	174
RW12	91	KCLEC <mark>LAASIKCVSH</mark> H	C <mark>K</mark> GACLKGPCT <mark>EG</mark> CQ E C	I <mark>K</mark> RNC <mark>ME</mark> ALL <mark>Q</mark> CI	GKPSVPNPCDV	KDDYLK <mark>F</mark> KFPE <mark>NG</mark> ED <mark>AP</mark> QKKGEASGTS	174
RW7	91	KCLEC <mark>LAASIKCVSH</mark> H	C <mark>K</mark> GACLKGPCT <mark>EG</mark> CQEC	IKRNCMEALLQCI	GKPSVPNPCDV	KDDYLK <mark>F</mark> KFPET <mark>G</mark> EDE <mark>A</mark> QKKGEASGTS	174
RW15	91	KCLECLAASIKCV <mark>S.</mark> HH	C <mark>k</mark> gaclkgpct <mark>e</mark> dcq q c	I <mark>KS</mark> NCMDALLQCI	GKPSVPNPCDV	KDDYLK <mark>F</mark> KFPET <mark>G</mark> EDE <mark>P</mark> QKKGEASGTS	174