

## Additional file 2: Figure S1

JF451938. Muguga	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
JF451939. Kiambu	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
JF451940. Serengeti	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
Nyakizu B66	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW1	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW3	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW4	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW5	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW6	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW7	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW8	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW9	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW13	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW14	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW17	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
Gikongoro RW1	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW19	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW10	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW11	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
JF451975 Chitongo Z2	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW12	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW15	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW16	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90
RW18	1	MATSI	AFAAD	PGFCY	FLLI	PGDSK	PIFFK	NDGDK	FLR	VGY	PKVKEE	EMAT	KFNRL	PKGVEI	PAPP	GVKPE	APTPT	PTTIT	PSVP	PPT	90

Additional file 2: Figure S2

CTL 01 CTL 02 CTL 03

JF451861 muguga 73	1	MKLAARLISLYFIITLHSPVLGGNSHEELKKLGMLEGGDFDRDALFKSSHGMGKVGKRYGLKTPPKVDKVLADLETFLGKHGLGGISK	90
JF451862 serengeti 69	1	MKLAARLISLYFIITLHSPVLGGNSHEELKKLGMLEGGDFDRDALFKSSHGMGKVGKRYGLKTPPKVDKVLADLETFLGKHGLGGISK	90
Nyakizu T2	1	MKLAARLISLYFIITLHSPVLGGNSHEELKKLGMLEGGDFDRDALFKSSHGMGKVGKRYGLKTPPKVDKVLADLETFLGKHGLGGISK	90
RW2	1	MKLAARLISLYFIITLHSPVLGGNSHEELKKLGMLEGGDFDRDALFKSSHGMGKVGKRYGLKTPPKVDKVLADLETFLGKHGLGGISK	90
RW17	1	MKLAARLISLYFIITLHSPVLGGNSHEELKKLGMLEGGDFDRDALFKSSHGMGKVGKRYGLKTPPKVDKVLADLETFLGKHGLGGISK	90
RW9	1	MKLAARLISLYFIITLHSPVLGGNSHEELKKLGMLEGGDFDRDALFKSSHGMGKVGKRYGLKTPPKVDKVLADLETFLGKHGLGGISK	90
RW13	1	MKLAARLISLYFIITLHSPVLGGNSHEELKKLGMLEGGDFDRDALFKSSHGMGKVGKRYGLKTPPKVDKVLADLETFLGKHGLGGISK	90
RW1	1	MKLAARLISLYFIITLHSPVLGGNSHEELDTLGMLEGGDFDRDALFKSSHGMGKVGKRYGLKTPPKVEKVLTDLAQLFTKGLGAGVVK	90
RW8	1	MKLAARLISLYFIITLHSPVLGGNSHEELKKLGMVEGEGDFDKEKLFKSSKSMGIVGRNHGLKPKPRLESWFEDLEKLFGKHGLGGISK	90
RW3	1	MKLAARLISLYFIITLHSPVLGGNSHEELKKLGMVEGEGDFDKEKLFKSSKSMGIVGRNHGLKPKPRLESWFEDLEKLFGKHGLGGISK	90
RW16	1	MKLAARLISLYFIITLHSPVLGGNSHEELKKLGMVEGEGDFDKEKLFKSSQSMGIVGRNHGLKPKPRLESWFEDLEKLFGKHGLGGISK	90
Gikongoro RW1	1	MKLAARLISLYFIITLHSPVLGGNSDEELDKLGMLEGGDFDRDALFKSSHGMGKVGKRYGLKTPPKVDKVLADLETFLGKLGLAGISK	90
JF451880 kiambu 5	1	MKLAARLISLYFIITLHSPVLGGNSDEELNKLGMLEGGDFDRDALFKSSHGMGKVGKRYGLKTPPKVDKVLADLETFLGKHGLGGISK	90
RW14	1	MKLAARLISLYFIITLHSPVLGGNSDEELNKLGMLEGGDFDRDALFKSSHGMGKVGKRYGLKTPPKVDKVLADLETFLGKHGLGGISK	90
RW19	1	MKLAARLISLYFIITLHSPVLGGNSDEELNKLGMVEGEGDFDRNLTKSSHGMGKVGKRYGLKTPPKVDKVLADLETFLGKHGLGGISK	90
RW18	1	MKLAARLISLYFIITLHSPVLGGNSDEELNKLGMVEGEGDFDKTLFKSSHGMGKIVGRNHGLKPRTRLEKVFKDLEKLFGKHGLAGIGK	90
RW5	1	MKLAARLISLYFIITLHSPVLGGNSDEELGYLGMVEGEGDFDKTLFKSSQSMGIVGRNHGLKPRTRLEKVFEDLEKLFGKHGLGGISK	90
JF451884 chitongo Z2	1	MKLAARLISLYFIITLHSPVLGGNSDEELDTLGMLEGGDFDRDALFKSSHGMGKIVGRNHGLKPRTRLEKVFEDLEKLFGKHGLGGISK	90
RW6	1	MKLAARLISLYFIITLHSPVLGGNSDEELDTLGMLEGGDFDRDALFKSSHGMGKIVGRNHGLKPRTRLEKVFEDLEKLFGKHGLGGISK	90
RW11	1	MKLAARLISLYFIITLHSPVLGGNSDEELDTLGLLQKPKDKNRFLTSHGMGKIVGRNHGLKPRTRLEKVFEDLEKLFGKHGLGGISK	90
RW4	1	MKLAARLISLYFIITLHSPVLGGNSDEELDTLGLLQKPKDKNRFLTSHGMGKIVGRNHGLKPRTRLEKVFEDLEKLFGKHGLGGISK	90
RW10	1	MKLAARLISLYFIITLHSPVLGGNSDEELDTLGLLQKPKDKNRFLTSHGMGKIVGRNHGLKPRTRLEKVFEDLEKLFGKHGLGGISK	90
RW12	1	MKLAARLISLYFIITLHSPVLGGNSDEELDTLGLLQKPKDKNRFLTSHGMGKIVGRNHGLKPRTRLEKVFEDLEKLFGKHGLGGISK	90
RW7	1	MKLAARLISLYFIITLHSPVLGGNSDEELDTLGLLQKPKDKNRFLTSHGMGKIVGRNHGLKPRTRLEKVFEDLEKLFGKHGLGGISK	90
RW15	1	MKLAARLISLYFIITLHSPVLGGNSDEELDTLGMLEGGDFDRDALFKSSHGMGKIVGRNHGLKPRTRLEKVFEDLEKLFGKHGLGGISK	90

CTL 04 CTL 05 CTL 06

JF451861 muguga 73	91	DCLKCFAQSLVCLVIMKCRGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
JF451862 serengeti 69	91	DCLKCFAQSLVCLVIMKCRGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
Nyakizu T2	91	DCLKCFAQSLVCLVIMKCRGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW2	91	DCLKCFAQSLVCLVIMKCRGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW17	91	DCLKCFAQSLVCLVIMKCRGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW9	91	DCLKCFAQSLVCLVIMKCRGACLKGPCTDDCQNCIFDRNCKYALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW13	91	DCLKCFAQSLVCLVIMKCRGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW1	91	DCLKCFAQSLVCLVIMKCRGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW8	91	NCLTQFVQSLMCMVIMKCRGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW3	91	NCLTQFVQSLMCMVIMKCRGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW16	91	NCLTQFVQSLMCMVIMKCRGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
Gikongoro RW1	91	DCLKCFAQSLVCLVIMKCRGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
JF451880 kiambu 5	91	DCLKCFAQSLVCLVIMKCRGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW14	91	DCLKCFAQSLVCLVIMKCRGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW19	91	DCLKCFAQSLMCMVIMKCRGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW18	91	NCLTQFVQSLMCMVIMKCRGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW5	91	NCLTQFVQSLMCMVIMKCRGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
JF451884 chitongo Z2	91	KCLELFAASIKCVSIHCKGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW6	91	KCLELFAASIKCVSIHCKGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW11	91	KCLELFAASIKCVSIHCKGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW4	91	KCLELFAASIKCVSIHCKGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW10	91	KCLELFAASIKCVSIHCKGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW12	91	KCLELFAASIKCVSIHCKGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW7	91	KCLELFAASIKCVSIHCKGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174
RW15	91	KCLELFAASIKCVSIHCKGACLKGPCTDDCQNCIFDRNCKSALLECIKGTSPINPCKVKEDYLKYKFPETDEDESTKKGGEASGTS	174