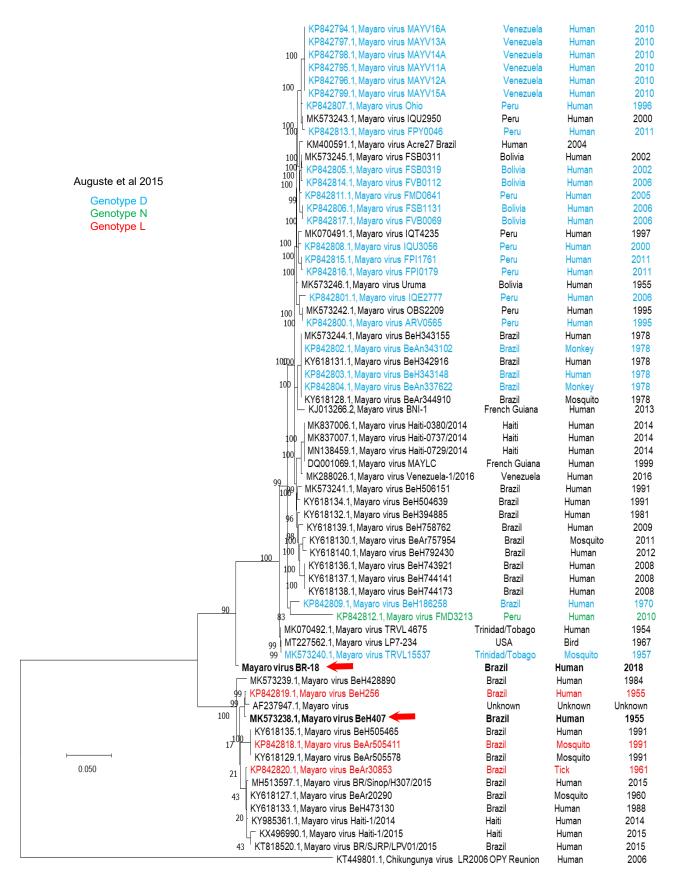


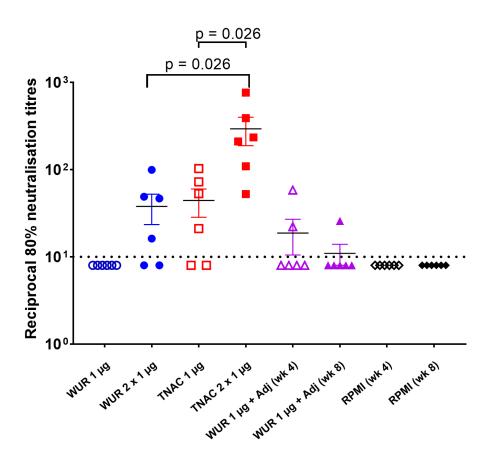
Supplementary Figure 1. Full size histology pictures as presented in Figure 4. M = muscle, T = tendon. Inflammatory infiltrates near joint tissues are indicated (#). Stars (*) indicate subcutaneous oedema; Arrows indicate haemorrhage; Black ovals indicate cellular infiltration in the muscle.



Supplementary Figure 2. Dendogram using complete genome nucleic acid sequences. Previously described isolates and their genotype allocation as described (Auguste et al., 2015)

		ъ п		4000
	ASY08142.1, Mayaro virus BeAr20290	Brazil	Mosquito	1960
	_{ss} ALI88668.1, Mayaro virus BeAr30853	Brazil	Tick	1961
	ASY08160.1, Mayaro virus BeH473130	Brazil	Human	1988
	AXF50013.1, Mayaro virus BR/Sinop/H307/2015	Brazil	Human	2015
	MSF83123.1, Mayaro virus Haiti-1/2014	Haiti	Human	2014
	QDL88203.1, Mayaro virus BeH428890	Brazil	Human	1984
	ALI88662.1, Mayaro virus BeAr505411	Brazil	Mosquito	1991
	ASYUSTOO.1, Mayaro Virus BeAr505465	Brazil	Human	1991
	ASY08148.1, Mayaro virus BeAr505578	Brazil	Mosquito	1991
	₇₃ QDL88200.1, Mayaro virus BeH407 🛑	Brazil	Human	1955
	ALI88665.1, Mayaro virus BeH256	Brazil	Human	1955
	T A A L 70764 1 Movere virus	Unknown	Unknown	Unknown
	20			
	ANY58848.1, Mayaro virus Hiait-1/2015	Haiti	Human	2015
	13 69 ALG64706.1, Mayaro virus BR/SJRP/LPV01/2015	Brazil	Human	2015
	LALI88644.1, Mayaro virus FMD3213	Peru	Human	2010
	」 QDL88212.1, Mayaro virus OBS2209	Peru	Human	1995
	* ALI88608.1, Mayaro virus ARV0565	Peru	Human	1995
	ALI88611.1, Mayaro virus IQE2777	Peru	Human	2006
	ALI88635.1, Mayaro virus BeH186258	Brazil	Human	1970
	ASY08178.1, Mayaro virus BeH758762	Brazil	Human	2009
	ALI88659.1, Mayaro virus FVB0069	Bolivia	Human	2006
	ALI88626.1, Mayaro virus FSB1131	Bolivia	Human	2006
	AJA37502.1, Mayaro virus Acre27	Brazil	Human	2004
	53 ALI88641.1, Mayaro virus FMD0641	Peru	Human	2005
Auguste et al 2015				
Genotype D	ALI88650.1, Mayaro virus FVB0112	Bolivia	Human	2006
Genotype N	61 QDL88221.1, Mayaro virus FSB0311	Bolivia	Human	2002
31	ALI88623.1, Mayaro virus FSB0319	Bolivia	Human	2002
Genotype L	² ASY08157.1, Mayaro virus BeH394885	Brazil	Human	1981
	ASY08151.1, Mayaro virus BeAr757954	Brazil	Mosquito	2011
		Peru	Human	2011
	ALI88647.1, Mayaro virus FPY0046			
	AHM95189.2 Mayaro virus BNI-1	French Guiana	Human	2013
	QDL88224.1, Mayaro virus Uruma	Bolivia	Human	1955
	ALI88617.1, Mayaro virus BeH343148	Brazil	Human	1978
	QDL88209.1, Mayaro virus BeH506151	Brazil	Human	1991
	ALI88629.1, Mayaro virus Ohio	Peru	Human	1996
		Brazil	Monkey	1978
	"ALI88614.1, Mayaro virus BeAn343102		•	
	ALI88593.1, Mayaro virus MAYV11A	Venezuela	Human	2010
	ALI88590.1, Mayaro virus MAYV16A	Venezuela	Human	2010
	ALI88596.1, Mayaro virus MAYV12A	Venezuela	Human	2010
	ALI88599.1, Mayaro virus MAYV13A	Venezuela	Human	2010
	ALI88602.1, Mayaro virus MAYV14A	Venezuela	Human	2010
	ALI88605.1, Mayaro virus MAYV15A	Venezuela		
			Human	2010
	QDL88215.1, Mayaro virus IQU2950	Peru	Human	2000
	ALI88620.1, Mayaro virus BeAn337622	Brazil	Monkey	1978
	QDL88218.1, Mayaro virus BeH343155	Brazil	Human	1978
	AZM66144.1, Mayaro virus IQT4235	Peru	Human	1997
	ASY08181.1, Mayaro virus BeH792430	Brazil	Human	2012
	ASY08163.1, Mayaro virus BeH504639	Brazil	Human	1991
	ASY08154.1, Mayaro virus BeH342916	Brazil	Human	1978
	ASY08145.1, Mayaro virus BeAr344910	Brazil	Mosquito	1978
	ALI88656.1, Mayaro virus FPI0179	Peru	Human	2011
	ALI88653.1, Mayaro virus FPI1761	Peru	Human	2011
	ALI88632.1, Mayaro virus IQU3056	Peru	Human	2000
	ASY08175.1, Mayaro virus BeH744173	Brazil	Human	2008
	ASY08172.1, Mayaro virus BeH744141	Brazil	Human	2008
	ASY08169.1, Mayaro virus BeH743921	Brazil	Human	2008
	─ MAYV BR-18 E2E1 ──	Brazil	Human	2018
0.050	AZM66146.1, Mayaro virus TRVL 4675	Trinidad/Tobago	Human	1954
	© QNS29916.1, Mayaro virus LP7-234	USA	Bird	1954
	11			
	QDE00200.1, Mayaro Vilas 11(VE 10007	Trinidad/Tobago		1957
	QED21311.1, Mayaro virus Haiti-0737/2014	Haiti	Human	2014
	QED21309.1, Mayaro virus Haiti-0380/2014	Haiti	Human	2014
	QDZ59877.1, Mayaro virus Haiti-0729/2014	Haiti	Human	2014
	QDC12423.1, Mayaro virus Venezuela-1/2016	Venezuela	Human	2016
	AAY45742.1, Mayaro virus MAYLC	French Guiana	Human	1999
	ALD83794.1, Chikungunya virus LR2006 OPY1	Reunion	Human	2006

Supplementary Figure 3. Dendogram E2/E1 amino acid sequences. Previously described isolates and their genotype allocation as described (Auguste et al., 2015)



Supplementary Figure 4. MAYV BeH407 80% neutralisation titers after 1 or 2 vaccinations with non-adjuvanted MAYV VLPs or RPMI control, or 1 vaccination with MAYV VLPs with adjuvant. Lines among the dots indicate the mean neutralisation titers and error bars show the standard error of the mean. Dashed line represents the limit of detection (1 in 10 serum dilution). Statistics by Kolmogorov-Smirnov test. Multiple test correction not applied.