

Supplementary Materials: Minimum infective dose of a Lumpy skin disease virus field strain from North Macedonia

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Table S1. Pan Capripox real-time qPCR results of different sample materials after inoculation with different infective doses of LSDV-strain “Macedonia2016”.

Group A 3.8×10^2 CCID ₅₀ /animal	Genome Copies/ μ L Template at Different Days Post Inoculation										
	-1/3	5	7	10	11	12	13	14	17	21	28
R/279_EDTA blood	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	no Cq	no Cq	no Cq	no Cq
R/279_serum	no Cq	no Cq	no Cq	no Cq	-	0.15	-	no Cq	no Cq	no Cq	no Cq
R/279_nasal swab	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	0.27	0.14	no Cq	no Cq
R/278_EDTA blood	no Cq	no Cq	no Cq	0.44	-	no Cq	-	111.0 0	no Cq	0.26	no Cq
R/278_serum	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	7.01	no Cq	no Cq	no Cq
R/278_nasal swab	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	no Cq	0.14	no Cq	no Cq
R/280_EDTA blood	no Cq	no Cq	no Cq	1.09	-	43.60	1.38	+	+	+	+
R/280_serum	no Cq	no Cq	0.92	0.33	-	3.05	0.97	+	+	+	+
R/280_nasal swab	no Cq	no Cq	no Cq	no Cq	-	3.24	158.0 0	+	+	+	+
R/824_EDTA blood	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	no Cq	no Cq	67.20	+
R/824_serum	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	no Cq	no Cq	1.44	+
R/824_nasal swab	no Cq	no Cq	no Cq	no Cq	-	0.55	-	no Cq	0.54	3.73	+
R/915_EDTA blood	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	no Cq	0.70	no Cq	no Cq
R/915_serum	no Cq	no Cq	no Cq	0.78	-	no Cq	-	0.40	no Cq	no Cq	no Cq
R/915_nasal swab	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	no Cq	no Cq	no Cq	no Cq
R/203_EDTA blood	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	no Cq	no Cq	no Cq	no Cq
R/203_serum	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	no Cq	no Cq	no Cq	no Cq
R/203_nasal swab	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	no Cq	no Cq	no Cq	no Cq
Group B 2.4×10^4 CCID ₅₀ /animal											
R/888_EDTA blood	no Cq	no Cq	no Cq	15.40	0.36	+	+	+	+	+	+
R/888_serum	no Cq	no Cq	no Cq	2.45	2.00	+	+	+	+	+	+

R/888_nasal swab	no Cq	-	no Cq	no Cq	no Cq	+	+	+	+	+	+
R/857_EDTA blood	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	no Cq	no Cq	no Cq	no Cq
R/857_serum	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	no Cq	no Cq	no Cq	no Cq
R/857_nasal swab	no Cq	no Cq	no Cq	no Cq	-	0.20	-	no Cq	0.49	no Cq	no Cq
R/891_EDTA blood	no Cq	no Cq	no Cq	258.0 0	-	0.20	-	0.17	no Cq	2.71	no Cq
R/891_serum	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	no Cq	no Cq	2.30	no Cq
R/891_nasal swab	no Cq	no Cq	no Cq	no Cq	-	0.03	-	no Cq	no Cq	no Cq	no Cq
R/829_EDTA blood	no Cq	no Cq	no Cq	19.10	-	0.25	0.17	+	+	+	+
R/829_serum	no Cq	no Cq	no Cq	0.82	-	0.36	no Cq	+	+	+	+
R/829_nasal swab	no Cq	no Cq	no Cq	no Cq	-	no Cq	no Cq	+	+	+	+
R/984_EDTA blood	no Cq	no Cq	0.48	3.72	-	154.0 0	41.10	+	+	+	+
R/984_serum	no Cq	no Cq	no Cq	1.10	-	1.43	5.31	+	+	+	+
R/984_nasal swab	no Cq	no Cq	no Cq	no Cq	-	36.10	4.34	+	+	+	+
R/990_EDTA blood	no Cq	no Cq	no Cq	0.48	-	0.01	-	0.10	no Cq	no Cq	no Cq
R/990_serum	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	no Cq	no Cq	no Cq	no Cq
R/990_nasal swab	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	0.17	0.36	no Cq	no Cq
Group C 3.3 × 10⁶ CCID₅₀/animal											
R/277_EDTA blood	no Cq	no Cq	no Cq	3.21	-	1.01	1.27	+	+	+	+
R/277_serum	no Cq	no Cq	no Cq	0.49	-	0.32	0.37	+	+	+	+
R/277_nasal swab	no Cq	no Cq	no Cq	no Cq	-	0.17	0.15	+	+	+	+
R/283_EDTA blood	no Cq	no Cq	0.87	265.0 0	136.0 0	+	+	+	+	+	+
R/283_serum	no Cq	no Cq	no Cq	1.64	1.70	+	+	+	+	+	+
R/283_nasal swab	no Cq	no Cq	no Cq	1.37	4.02	+	+	+	+	+	+
R/284_EDTA blood	no Cq	no Cq	51.40	8.96	-	10.20	-	0.92	no Cq	no Cq	no Cq
R/284_serum	no Cq	no Cq	0.38	2.04	-	2.10	-	0.17	no Cq	0.34	no Cq
R/284_nasal swab	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	no Cq	no Cq	no Cq	no Cq
R/921_EDTA blood	no Cq	no Cq	51.40	8.96	-	10.20	-	0.92	no Cq	no Cq	no Cq
R/921_serum	no Cq	no Cq	0.38	2.04	-	2.10	-	0.17	no Cq	0.34	no Cq
R/921_nasal swab	no Cq	no Cq	no Cq	no Cq	-	no Cq	-	no Cq	no Cq	no Cq	no Cq

R/841_EDTA blood	no Cq	1.53	7.05	1.85	10.10	+	+	+	+	+	+
R/841_serum	no Cq	no Cq	no Cq	1.45	2.14	+	+	+	+	+	+
R/841_nasal swab	no Cq	no Cq	no Cq	no Cq	no Cq	+	+	+	+	+	+
R/989_EDTA blood	no Cq	no Cq	8.34	41.20	3.25	+	+	+	+	+	+
R/989_serum	no Cq	0.91	no Cq	9.18	1.95	+	+	+	+	+	+
R/989_nasal swab	no Cq	no Cq	no Cq	4.49	257.0 0	+	+	+	+	+	+
Group D 3.8×10^7 CCID₅₀/animal											
R/276_EDTA blood	no Cq	no Cq	no Cq	5320. 00	-	0.01	-	no Cq	37.70	no Cq	62.80
R/276_serum	no Cq	no Cq	no Cq	10.90	-	0.77	-	no Cq	0.37	no Cq	no Cq
R/276_nasal swab	no Cq	no Cq	no Cq	0.26	-	no Cq	-	no Cq	no Cq	no Cq	no Cq
R/282_EDTA blood	no Cq	1.68	no Cq	0.10	-	no Cq	-	no Cq	no Cq	no Cq	no Cq
R/282_serum	no Cq	no Cq	0.33	no Cq	-	no Cq	-	no Cq	no Cq	no Cq	no Cq
R/282_nasal swab	no Cq	no Cq	no Cq	1.62	-	no Cq	-	2.70	0.27	no Cq	no Cq
R/981_EDTA blood	no Cq	41.60	9.75	13.50	62.30	+	+	+	+	+	+
R/981_serum	no Cq	no Cq	1.08	2.96	4.59	+	+	+	+	+	+
R/981_nasal swab	no Cq	no Cq	no Cq	883.0 0	5880. 0	+	+	+	+	+	+
R/860_EDTA blood	no Cq	41.60	9.75	13.50	62.30	+	+	+	+	+	+
R/860_serum	no Cq	no Cq	1.08	2.96	4.59	+	+	+	+	+	+
R/860_nasal swab	no Cq	no Cq	no Cq	883.0 0	5880. 0	+	+	+	+	+	+
R/893_EDTA blood	no Cq	no Cq	no Cq	5.74	-	0.97	-	0.53	no Cq	no Cq	no Cq
R/893_serum	no Cq	no Cq	no Cq	0.69	-	no Cq	-	0.21	no Cq	no Cq	no Cq
R/893_nasal swab	no Cq	no Cq	no Cq	no Cq	-	3.28	-	0.18	0.07	no Cq	no Cq
R/988_EDTA blood	no Cq	16.10	173.0 0	841.0 0	382.0 0	+	+	+	+	+	+
R/988_serum	no Cq	1.35	14.60	87.30	327.0 0	+	+	+	+	+	+
R/988_nasal swab	no Cq	no Cq	1.10	438.0 0	11700 .00	+	+	+	+	+	+

The genome copy numbers per μL template are presented. For calculation of the genome copy number per ml sample material, the listed genome copies must be multiplied by a factor of 400. + displays animal was euthanized before sampling day, - means sample not taken.

Table S2. Pan Capripox real-time qPCR results of different tissue samples of cattle after inoculation with different infective doses of LSDV-strain “Macedonia2016”.

Cattle		Cervical Lymph Node	Medestinal Lymph Node	Mesenterial Lymph Node	Spleen	Liver	Lung	Neck (Skin Nodules)	Udder Mirror (Skin Nodules)	Pox-Like Lesions Lung
Group A— 3.8 × 10² CCID₅₀/ani mal	R/279	no Cq	no Cq	no Cq	no Cq	no Cq	no Cq	no Cq	n.t.	n.t.
	R/278	no Cq	no Cq	no Cq	no Cq	no Cq	no Cq	n.t.	n.t.	n.t.
	R/280	96.45	no Cq	no Cq	no Cq	0.25	0.42	251000.0	5445.0	n.t.
	R/824	136.50	no Cq	no Cq	1.98	0.56	75.40	199500.0	714500.0	1665000.0
	R/915	0.78	no Cq	no Cq	no Cq	no Cq	no Cq	n.t.	n.t.	n.t.
	R/203	no Cq	no Cq	no Cq	no Cq	no Cq	no Cq	n.t.	n.t.	n.t.
Group B— 2.4 × 10⁴ CCID₅₀/ani mal	R/888	15.50	no Cq	no Cq	no Cq	no Cq	2.12	144500.0	38350.0	n.t.
	R/857	no Cq	no Cq	no Cq	no Cq	no Cq	no Cq	n.t.	n.t.	n.t.
	R/891	no Cq	no Cq	no Cq	no Cq	no Cq	no Cq	n.t.	n.t.	n.t.
	R/829	1.00	no Cq	no Cq	no Cq	no Cq	no Cq	n.t.	n.t.	n.t.
	R/984	8.20	no Cq	no Cq	no Cq	0.43	5.56	25400.0	53700.0	n.t.
	R/990	no Cq	no Cq	no Cq	no Cq	no Cq	no Cq	n.t.	n.t.	n.t.
Group C— 3.3 × 10⁶ CCID₅₀/ani mal	R/277	no Cq	no Cq	no Cq	no Cq	no Cq	4.82	1255000.0	3750000.0	36800.0
	R/283	41.55	0.59	0.66	no Cq	no Cq	8.22	113500.0	580000.0	n.t.
	R/284	no Cq	no Cq	no Cq	no Cq	no Cq	no Cq	no Cq	n.t.	10105.0
	R/921	no Cq	no Cq	no Cq	no Cq	no Cq	no Cq	n.t.	n.t.	n.t.
	R/841	35.75	4.02	no Cq	no Cq	no Cq	8.18	91850.0	114050.0	n.t.
	R/989	24.45	35.90	no Cq	no Cq	no Cq	1.61	84150.0	n.t.	6320.0
Group D— 3.8 × 10⁷ CCID₅₀/ani mal	R/276	no Cq	no Cq	no Cq	no Cq	no Cq	no Cq	n.t.	n.t.	5940.00
	R/282	no Cq	no Cq	no Cq	no Cq	no Cq	no Cq	n.t.	n.t.	n.t.
	R/981	24.40	0.09	no Cq	no Cq	no Cq	42.70	56900.0	400000.0	n.t.
	R/860	no Cq	no Cq	no Cq	no Cq	no Cq	33.50	n.t.	n.t.	n.t.
	R/893	no Cq	no Cq	no Cq	no Cq	no Cq	no Cq	no Cq	no Cq	1590.00
	R/988	2555.00	68700.0	2.77	1400.00	105.9 0	148000. 0	144000.0	577000.0	1940000.0

The genome copy numbers per μ L template are presented. For calculation of the genome copy number per g tissue material, the listed genome copies must be multiplied by a factor of 4000. n.t. displays sample not taken.