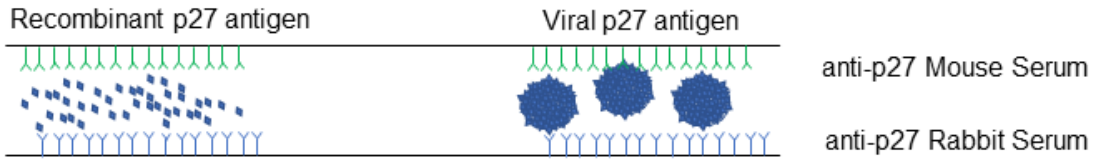
Supplementary Table 1.

	Primer sequences used to produce megaprimer	
Chimera (Chm)	**Forward (FWD) Primer Sequences**	**Reverse (REV) Primer Sequences**
1	5'-gaataaacaagttatgtactttataaatatagcattgtaataaagcaaggtatcagccattcttggtctg -3'	5'-acggagcgtcctcgctaagaaaataagagagagaccgcagccagcacggacaaaag -3'
2	5'-aggaggagtagtaaggtatatagttgagagtataaatatggggcaaacacatagtcgtcaattg-3'	5'-acccagtttcccgaaaccgggggtaaaggattaccttgaacatctgttttagaccggcaatc-3'
3	**Megaprimer 1**	
	5'-catgtttgtgtttttccacagaatgccgaagcaccgcgctggatc -3'	5'- gctcttaagacttcctgagggtggcgggaca -3'
	Megaprimer 2	
	5'-atgcaacgcatgacgctgagcgagcccacgagtgacatgtttgtgtttttccacagaatg-3'	5'-agcagtgccaaaagcaaacatccgagccttaagagctcttaagacttcctgagggtggcgggaca -3'
4	5'-gagatgcgggggacgacccgtgaggggacaacccgcggagggttaa -3'	5'-tgagaggatcagaccaaaatggctgatactctgctttattgtgcagcagtat-3'
5	Chm4 FWD	5'-gttgagaggatcagaccaagaatggctgataccttgctttattgtgcagcagtat-3'
6	**Megaprimer 1**	
	Chm3 FWD 1	Chm4 REV
	Megaprimer 2	
	Chm3 FWD 2	Chm4 REV

Supplementary Material S1.

A)



B)

Virus	p27 (pg/mL)	IFU/mL
JSRV	$5.7 \times 10^3 \pm 1.3 \times 10^3$§	$4.9 \times 10^7 \pm 1.8 \times 10^7$§
ENTV	$3.4 \times 10^3 \pm 5.5 \times 10^2$	$2.3 \times 10^7 \pm 9.9 \times 10^6$
Chm1 – ERU5	$8.0 \times 10^3 \pm 1.6 \times 10^3$	$6.9 \times 10^7 \pm 2.4 \times 10^7$
Chm2 - E*gag*	$6.2 \times 10^3 \pm 4.6 \times 10^2$	$5.3 \times 10^7 \pm 1.7 \times 10^7$
Chm3 - E*env*	$1.3 \times 10^3 \pm 4.2 \times 10^2$	$1.1 \times 10^7 \pm 4.5 \times 10^6$
Chm4 – EU3	$1.6 \times 10^3 \pm 1.4 \times 10^2$	$1.3 \times 10^7 \pm 4.3 \times 10^6$
Chm5 - ELTR	$5.3 \times 10^3 \pm 1.1 \times 10^3$	$4.5 \times 10^7 \pm 1.6 \times 10^7$
Chm6 – E*env*U3	$3.1 \times 10^3 \pm 4.9 \times 10^2$	$2.7 \times 10^7 \pm 9.1 \times 10^6$

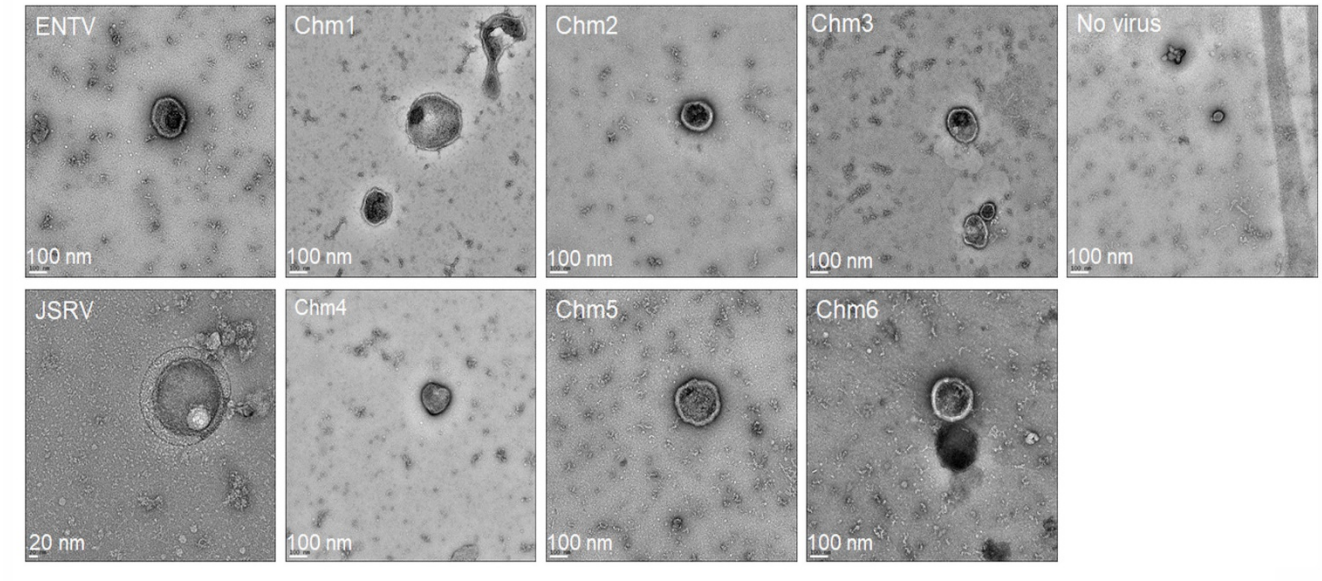
§mean ± SEM

Supplementary Material S2.

Protocol Day	Procedure	Description
Day 0	Control serum collection	Pre-immunization bleed (0.1 mL per mouse)
Day 1	First injection	Immunize with 25 μg antigen IM* in 4 flanks
Day 21	First booster	Boost with 10 μg antigen IM in 2 flanks
Day 42	2nd booster	Boost with 10 μg antigen IM in 2 flanks
Day 50	Test-bleed	Test-bleed (0.1 mL per mouse); p27 ELISA
Day 62	3rd booster	Boost with 10 μg antigen IM in 2 flanks
Day 70	Test-bleed	Test-bleed (0.1 mL per mouse); p27 ELISA
Day 75	End point	Terminal bleed (heart puncture, yielding 0.5–1 mL per mouse); p27 ELISA

*IM stands for intramuscular

Supplementary Material S3.



Supplementary Materia S4.