

	84	86	88	90	92		
VR-2332_PRRSV	RPP	DD	WAT	DED	LV	Type II	
Ingelvac_PRRSV	RPS	DD	WAT	DED	LV		
SP_PRRSV	RPP	DD	WAT	DED	LV		
HB-2_PRRSV	RPS	DD	WAT	DED	LV		
P129_PRRSV	RPS	DD	WAT	DED	LV		
CH-1a_PRRSV	RPL	DD	WAT	DED	LV		
Ja142_PRRSV	RPS	DD	WAT	DED	LV		
MN184A_PRRSV	RSP	ED	WAT	DED	LV		
NADC30_PRRSV	RSP	DD	WAT	DED	LA		
NADC31_PRRSV	RPP	ED	WAT	DED	LV		
Jxwn06_PRRSV	RPS	DD	WAT	DED	LV		
HuN4_PRRSV	RPS	DD	WAT	DED	LV		
Lelystad_PRRSV	RP	ED	WA	SD	YDLA		Type I
EuroPRRSV_PRRSV	RP	ED	WA	SD	YDLV		
Belgium_PRRSV	RP	ED	WA	SD	YDLA		
RPOA-SHFV	WAY	E	AWTT	N	EDIG	Other arteriviruses	
RPOA-LDV	RDS	SE	WLS	DQ	DLY		
CAC42775_EAV	CSS	DL	WC	DE	LAY		

**Figure. S1.** The sequence alignment of the PLP2 acidic cluster. The amino acids sequences of various PRRSV acidic clusters are presented. The residues investigated in our study are highlighted in red or blue. The accession numbers of viruses are as follows: AY150564 (VR-2332), EF532801 (Ingelvac), AF184212 (SP), AY262352 (HB-2), AF494042 (P192), AY032626 (CH-1a), AY424271 (JA142), DQ176019 (MN184A), JN654459 (NADC30), JN660150 (NADC31), EF641008 (JXwn06), EF635006 (HuN4), M96262 (Lelystad), AY366525 (EuroPRRSV), KT159248 (Belgium), Q68722 (RPOA-SHFV), Q06562 (RPOA-LDV), CAC42775 (EAV).