

Supplementary Materials

# Exchange of C-terminal variable sequences within morbilli-virus nucleocapsid protein are tolerated: Development and evaluation of a marker (DIVA) vaccine for PPR

**Table S1.** Primers designed for sequencing of DMV N-gene.

Name of the Primer	Primer Details	Position of Primer
DMV NF	GCG CGA TCC TAT CAA TTG GCA CAG G	65–85
DMV PR	CCG CTT GAC CGC CGT GAT CAT AAA CAT G	2132<-2157
DMVNF1	GAC AGG CGT CAT GAT CAG T	314-332
DMVNF2	CCG AGA CGA GGC GGT GGA TTA AA	679-701
DMVNF3	GCG AGA CTG CAC CGT ACA TGG TAA	1027-1050
DMVNF4	GCT GAG GCA TTA GCC AAG ATG AG	1577-1599
DMVNR1	CGG GCG GAT TTT CTC TGA G	1857<-1875
DMVNR2	GGT CGT CAG TGT TGT CGG ACT	1535<-1555
DMVNR3	CCA ACT CCC ATT GCA TAG CTC CA	1104<-1126
DMVNR4	CAC GGC GTT GCT GAG TAT ATT	700<-720
DMVNR5	GCC TCT GGA TGC AAA AGT GAG CCC T	443<-467

**Table S2.** Primers designed for overlapping PCR.

Primer Name	Primer Details	Position of Primer
PPR-DMV F	GGC TGG GGA CGA AAG AGC TAA TAG AGC AAT AGG T	1305-1338
DMV-PPR R	ACC TAT TGC TCT ATT AGC TCT TTC GTC CCC AGC C	1305<-1338
DMV <i>Pac</i> IR	CGG CCT TAA TTA AAC GCT GCT CAG AGT GGA TCC	1604<-1585
PPR <i>Acl</i> IF	GCG CAA GAT CTA ACG TTA TGG CGA CTC TCC	93-120

**Table S3.** PPRV genome specific primers to RT-PCR.

Primer Name	Primer Position	Primer Sequence
PPR-F-P6	2634-2653	AGGAGTGCAAAGACGATCC TTAGCGCTAAACACACTCC
PPR-R-P8	3830-3850	(reverse complementary- GGAAGTGTGTTTAGCGCTAA )

**Table S4.** Primers designed for expression work.

Primer Name	Primer Details	Position of the Primer
DMV-Bam-HIF1	GCG GAT CCG CTA ATA GAG CAA TAG GTC C	1315-1340

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<b>DMV- HindIII</b>	GCG CAA GCT TGC CAA GTA GAT CTT TAT C	1665-1690
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