

**Supplementary Table S1.** Additional RT-semi-nested PCRs (overlapping with the screening RT-PCR assay) used in combination with the screening RT-PCR to obtain longer ORF1b sequences (~950 bp, encoding a significant region (~ 315 aa) of the putative RdRp) from the AstVs detected in mongooses (designated as Mon-AstVs). Abbreviations: aa, amino acid; AstVs, astroviruses; nt, nucleotide; ORF, open reading frame; RdRp, RNA-dependent RNA polymerase.

Target	RT-semi-nested PCR	Primer name	Primer sequence (5'-3')	Primer position
ORF1b (RdRp encoding region)	Group-I Mon-AstV-specific RT-semi-nested PCR	AstV-F-con	GCATATDMWAAKATGTTTGARAAATTTA <sup>1</sup>	nt 2499-nt 2526 <sup>2</sup>
		Group-I-INR1	GGTAGTACTAATCTGACCAGAAGG <sup>3</sup>	nt 199-nt 176 <sup>4</sup>
		Group-I-INR2	CTCCTTATTATGGTTACTTCCC <sup>3</sup>	nt 168-nt 147 <sup>4</sup>
	Group-II Mon-AstV-specific RT-semi-nested PCR	AstV-F-con	GCATATDMWAAKATGTTTGARAAATTTA <sup>1</sup>	nt 2499-nt 2526 <sup>2</sup>
		Group-II-INR1	GTAGTTGAAATTGTCCCAGAGG <sup>5</sup>	nt 195-nt 173 <sup>6</sup>
		Group-II-INR2	ATCATGGTAACCTCTCCTGTAGG <sup>5</sup>	nt 159-nt 137 <sup>6</sup>

<sup>1</sup> The primer was designed in the present study following multiple alignment of AstV sequences from reptiles and amphibians.

<sup>2</sup> The primer positions are those of nt sequences of Hainan gekko similignum astrovirus strain LPXYC188631 (GenBank accession number MG599917)

<sup>3</sup> The primer was designed in the present study following multiple alignment of AstV sequences from group-I Mon-AstVs.

<sup>4</sup> The primer positions are those of the partial nt sequence (~ 400 nt, obtained from the screening PCR) of group-I Mon-AstV Mon-14.

<sup>5</sup> The primer was designed in the present study following multiple alignment of AstV sequences from group-II Mon-AstVs.

<sup>6</sup> The primer positions are those of the partial nt sequence (~ 400 nt, obtained from the screening PCR) of group-II Mon-AstV Mon-59.