

**Supplementary Table 1.** Modified and designed primers and probes used for amplification and sequencing. GenBank numbers of reference sequences are as follows:

<sup>a</sup>HAV (DQ646426), <sup>b</sup>HEV (AB847308), <sup>c</sup>HAsV (DG415662), <sup>d</sup>HAsV (AB823732), <sup>e</sup>HAsV (FJ973620), <sup>f</sup>HAsV (HQ398856), <sup>g</sup>rAsV (KT946728), <sup>h</sup>rAsV (KT946727), <sup>i</sup>rAsV (KT946731), <sup>k</sup>rAsV (HM450381),

\*s = sense; as = antisense

region	name *	sequence (5'-3')	position (nt)	use
HAV (VP1)	HAV5 (as)	CCATTTCAAGAGTCCACACAC	3397-3377 <sup>a</sup>	Screening nested RT-PCR
	HAV6 (s)	ATTCAGATTAGACTGCCTTGGTA	2817-2839 <sup>a</sup>	
	HAV7 (as)	CATTATTTTCATGCTCCTCAGT	3300-3280 <sup>a</sup>	
	HAV8 (a)	GGTTTCTATTTCAGATTGCAAATTA	2907-2930 <sup>a</sup>	
HEV (ORF1)	HEV40 (s)	CiCGCATMACMTTYTTCCARAA	3999-4020 <sup>b</sup>	Screening nested RT-PCR
	HEV41 (as)	GCCATGTTCCAGACDGTRTTCCA	4467-4445 <sup>b</sup>	
	HEV42 (s)	GCTCTGTTTGGCCCiTGTTT	4106-4125 <sup>b</sup>	
	HEV43 (as)	GGCTCACCiGARTGYTTCTTCCA	4431-4409 <sup>b</sup>	
HEV full genome	dT20AGC (as)	TTTTTTTTTTTTTTTTTV	6945-6964 <sup>b</sup>	Full genome amplification
	rHEV44 (s)	GCAACCCCCGATGGAGACCATC	1-23 <sup>b</sup>	
	rHEV45 (s)	ATGGAGACCCATCAATATGTCGCC	11-34 <sup>b</sup>	
	rHEV46 (as)	TTATTCCYTCTTCCCCCTCMA	4942-4923 <sup>b</sup>	
	rHEV47 (as)	CAGCAAAAGCACGAGCACG	5002-4984 <sup>b</sup>	
	rHEV48 (s)	GCCGGGCAGTCGCCAATGA	5249-5267 <sup>b</sup>	
	rHEV49 (s)	CATATCATGGCGACTGAGGC	5453-5472 <sup>b</sup>	
	rHEV50 (s)	TGGGTCTGGTGGGATGG	6644-6660 <sup>b</sup>	
	rHEV51 (as)	CCATCCCACCAGACCCA	6660-6644 <sup>b</sup>	
	rHEV52 (s)	CGTGCTCGTGCTTTTGCTG	4984-5002 <sup>b</sup>	
	rHEV53 (s)	CACCYAGGCCIAATWCATGC	2259-2280 <sup>b</sup>	
	rHEV54 (s)	ARGAGTCCATGCAGGCYTGG	2409-2428 <sup>b</sup>	
	rHEV55 (as)	ATSGCCTTCTCTATGGC	4146-4130 <sup>b</sup>	
	rHEV56 (as)	CGGCAGTGYACAGTGGAGGA	3756-3737 <sup>b</sup>	
	rHEV57 (as)	ATCATGCCAYAACTTTGTCTC	3838-3818 <sup>b</sup>	
	rHEV58 (as)	TCATTGGCGACTGCCCCGGC	5267-5249 <sup>b</sup>	
	rHEV59 (as)	TCAGTCGCCATGATATGCGT	5469-5450 <sup>b</sup>	
	rHEV60 (as)	AATCWATGGCIGGGATCTG	3059-3041 <sup>b</sup>	
	rHEV61 (as)	CGRGTGGGACTGCAGSCGCCA	3142-3113 <sup>b</sup>	
	rHEV62 (s)	ACRGAGTGGCGCTGCAGTC	3107-3126 <sup>b</sup>	
	rHEV63 (s)	AGACAGTGYCGGGATTGGGT	1325-1344 <sup>b</sup>	

**Supplementary Table 1.** continued

region	name *	sequence (5'-3')	position (nt)	use
HEV full genome	rHEV64 (as)	GACACCCAATCCCGRCACTG	1347-1328 <sup>b</sup>	Full genome amplification
	rHEV65 (as)	GTGCATACCATGAGCACGCAT	562-542 <sup>b</sup>	
	rHEV66 (as)	CGGACACCGACGGACTTCC	2829-2811 <sup>b</sup>	
	rHEV67 (as)	CCCGGGACCCCCGCCAC	2805-2789 <sup>b</sup>	
	rHEV68 (s)	TATTGGGTGCCATTTTGTGCT	784-804 <sup>b</sup>	
	rHEV69 (s)	CAACAGGGGCTGCTCTTCCG	1229-1248 <sup>b</sup>	
	rHEV70 (s)	GGAAGAAGGAATAACACTCT	4929-4948 <sup>b</sup>	
	rHEV71 (s)	ATGTGTGCGGAATGCGTG	4959-4976 <sup>b</sup>	
	rHEV72 (as)	CGCCAGCCCTGGTTGCGGTA	5712-5693 <sup>b</sup>	
	rHEV73 (as)	CTTTCGCCCCGGCCACGG	4229-4212 <sup>b</sup>	
	rHEV74 (as)	CTGTGTGCTGTCAAACACTACT	4276-4256 <sup>b</sup>	
	rHEV75 (s)	ATGTGGAGGTTGTACCATCT	4337-4358 <sup>b</sup>	
	rHEV76 (as)	CTGTCGTGGACTGTGGCCAGA	5588-5568 <sup>b</sup>	
	rHEV77 (as)	GTTTCATGTCCACCGACGTAG	5611-5592 <sup>b</sup>	
	rHEV78 (s)	AGTGTTAAGTGGGAYCAGGTC	6473-6493 <sup>b</sup>	
	rHEV79 (s)	CTTGAATGGTAAGGCGCTACA	6496-6516 <sup>b</sup>	
	rHEV80 (s)	TGGGCATCGTCTTCCGTGGC	1698-1717 <sup>b</sup>	
	rHEV81 (s)	CCACCCACACCGGATGAG	1787-1804 <sup>b</sup>	
	rHEV82 (as)	GCCACGGAAGACGATGCCCA	1717-1698 <sup>b</sup>	
	rHEV83 (as)	CTCATCCGGTGTGGGTGG	1804-1787 <sup>b</sup>	
	rHEV84 (s)	GGTTGTTGCGCGCTTGTATC	749-769 <sup>b</sup>	
	rHEV85 (s)	CGTAAATCCATCCGGTCCTG	707-726 <sup>b</sup>	
	rHEV86 (as)	CGGATGCGACCAAGAAACAGC	208-188 <sup>b</sup>	
	rHEV87 (as)	CTGCAAAGGGGAGAAAAGCTC	172-152 <sup>b</sup>	
	rHEV88 (s)	GAGGATTTGACAGCCGACTTC	1520-1540 <sup>b</sup>	
	rHEV89 (s)	GCCCTTACAGATGCCCTACAC	1595-1615 <sup>b</sup>	
	rHEV90 (as)	ATGGCCTTCGCGGCTTGTGTG	3270-3250 <sup>b</sup>	
	rHEV91 (as)	TCCCCTTGACCAGAGAACACC	3231-3211 <sup>b</sup>	
	rHEV100 (as)	AACCAGCCTCTTACCTTTGGAG	2953-2932 <sup>b</sup>	
	rHEV101 (s)	GCGTTACCCACAAACTTGCC	4662-4681 <sup>b</sup>	
	rHEV102 (as)	GGACACCGACAGACTTCCCT	2828-2809 <sup>b</sup>	
	rHEV103 (s)	CCGGATGAGACATTGTACCAAAC	1796-1821 <sup>b</sup>	
	rHEV105 (s)	CGTCACACATCCCTCCAAAGT	1985-2005 <sup>b</sup>	
	rHEV106 (s)	GCCACACGTCCCTACAGAGT	1986-2005 <sup>b</sup>	
	rHEV107(as)	CGCGTGCAAAAAGGAAAGATCAG	453-432 <sup>b</sup>	
	rHEV108 (as)	CATTAATAGATCGAGGGTGCGC	281-302 <sup>b</sup>	
	rHEV109	GATGCGACCAAGAAACAGCG	2132-2151 <sup>b</sup>	

**Supplementary Table 1.** Continued

region	name *	sequence (5'-3')	position (nt)	use
AstV (ORF1b)	AV89a (s)	CATGGGAAGCTCCTRTGCT	569-587 <sup>e</sup>	Screening semi-nested RT-PCR
	AV89b (s)	CATGGGAAACTTTTGTGCT	3665-3683 <sup>d</sup>	
	AV89c (s)	TATGGGAAGCTCCTTTGCT	4025-4043 <sup>e</sup>	
	AV90a (s)	TTTGGYATGTGGGTIAARCC	4021-4040 <sup>f</sup>	
	AV90b (s)	TTTGGRATGTGGGTIAARCC	3497-3516 <sup>d</sup>	
	AV90c (s)	TTTGGRATGTGGGTCAAGAG	3845-3864 <sup>e</sup>	
	AV91 (as)	TTTGGWCCICCCCTCCA	4364-4348 <sup>f</sup>	
rAstV (ORF1/2 junction)	AVr104 (as)	CTGTACCCTCGATCCTACTCG	6678-6658 <sup>g</sup>	Typing semi-nested RT-PCR cluster D
	AVr111 (s)	ACCCCAAYATGTCCATCGGG	4782-4801 <sup>g</sup>	
	AVr112a (s)	AACCTTGGGCTTGGGGATGA	5324-5343 <sup>g</sup>	
	AVr112b (s)	AACACTGGCCTAGGGGATGA	5324-5343 <sup>h</sup>	
	AVr112c (s)	AACACCGGGCTAGGTGACCA	5393-5412 <sup>i</sup>	
rAstV (ORF1b)	AVr108 (s)	TATGTTGTGATGCCATCTGG	1829-1848 <sup>k</sup>	Typing semi-nested RT-PCR cluster B
	AVr109 (as)	CCACTTGACTCTCTCATCAAC	2773-2753 <sup>k</sup>	
	AVr113 (as)	CAACAGCGGCTCTTGGT	2664-2648 <sup>k</sup>	
hAstV (ORF1b)	AV91d (as)	GGTCCKCCCCTCCAAAT	4361-4345 <sup>f</sup>	Typing semi-nested RT-PCR for human astrovirus
	AV91e (as)	GGTCCACCCCTCCAAAT	3831-3815 <sup>d</sup>	
	AV91f (as)	GGTCCKCCCCTCCAAAG	744-728 <sup>c</sup>	
	AV91g (as)	GGACCTCCCCTCCAAAG	4200-4184 <sup>e</sup>	
	AV129 (as)	AGCAWAGGAGCTTCCCAT	4043-4026 <sup>e</sup>	
	AV129a (as)	AGCAAAGGAGTTTCCCAT	587-570 <sup>e</sup>	
	AV129b (as)	AGCACAAAAGTTTCCCAT	3683-3666 <sup>d</sup>	
	AV130 (s)	TTYGAYTGGACRMGHTWTGATG	3431-3452 <sup>e</sup>	
	AV131 (s)	TTYGAYTGGACYCGMTWTGATG	3625-3646 <sup>f</sup>	