

Annex 1. RT-qPCR protocols for honey bee viruses. Columns (left to right) indicate: virus acronym; oligonucleotide function (Forward, Reverse, Probe); nucleotide sequence; PCR product; genome location of product; Reverse Transcription; initial denaturation; number of amplification cycles; denaturation; annealing; extension; PCR reaction efficiency; detection threshold; possible cross-amplification of other virus strains; references.

VIRUS		3'	#	PRIMER	SIZE	LOCATION	RT	denat.	cycl.	denat.	ann.	ext.	E	thresh.	cross-amp	REFERENCE	
ABPV	F	34	-	AGCCACTATGTGCTATCGTAT	207	5'NTR	50°C	95°C	40	94°C	55°C	72°C				Grabensteiner et al., 2007	
	R	240	_	ATGGTGACCTCTGTGCATTA			30min	15min		30sec	30sec	60sec					
ABPV	F	4802	1	AAATGATACCGGTGGGCAGAT	66	RdRp	25/50°C	95°C	40	95°C	58°C	72°C				Gauthier et al., 2007	
	R	4825	3	AAGGTCGTATGTCCGCTTACCA			10/60min	5min		10sec	30sec	30sec					
ABPV	F	5307	2	ATGTGGGTGGATACATTAAGGA	451	RdRp	50°C	94°C	35	94°C	57°C	72°C				Meeus et al., 2010	
	R	5717	1	TTGTTGCCGGATTACCAGA			30min	2min		30sec	30sec	45sec					
ABPV	F	5290	3	TGAGAACACCTGTAATGTGG	452	RdRp	50°C	94°C	35	94°C	55°C	72°C				IAPV? KBV?	Tentcheva et al., 2004a
	R	5703	2	ACCAGAGGGTTGACTGTGTG			60min	2min		30sec	30sec	60sec					
ABPV	F	5324	1	GGATGAGAGAAGACCAATTG	169	RdRp	49°C	95°C	40	95°C	54°C	72°C				KBV?IAPV? ABPV?	Highfield et al., 2009
	R	?	?	CCATAGGAATAATGTTTATTCC			30min	10min		15sec	20sec	20sec					
ABPV	F	5381	1	AATGGGCCTATGGACTTTTCTA	178	RdRp	50°C	95°C	40	95°C	58°C	72°C					Siede et al., 2005
	R	5517	2	AAATCTCCTGCAATAACCTTGG			30min	15min		15sec	30sec	30sec					
ABPV	F	5462	1	TAACCAATGAAGTRTCCATAGGAACTA	100	RdRp	48°C	95°C	40	95°C	-	60°C					Evison et al., 2012
	R	5515	3	TCTCCTGCRATAACCTTGGGT			30min	10min		15sec	-	60sec					
ABPV	F	5481		Fam-TGTTTTATCCCAAGATTG-Tamra													
	F	6261	2	TATCAGAAGGCCACTGGAGA	722	IGR-VP2	50°C	95°C	40	95°C	55°C	72°C				IAPV? KBV?	Bakonyi et al., 2002b
R	6995	1	TCCACTCGGTATCATAAAGG	30min			5min	20sec		20sec	60sec						
ABPV	F	6548	1	TCATACCTGCCGATCAAG	197	VP2	50°C	95°C	40	95°C	-	58°C					Locke et al., 2012
	R	6707	1	CTGAATAATACTGTGCGTATC			10min	5min		10sec	-	30sec					
ABPV	F	6867	2	TCTTGGACATTGCCCTCAGT	778	VP2-VP4	50°C	95°C	40	95°C	55°C	72°C					Bakonyi et al., 2002b
	R	7607	1	ATACCATTGCCACCTTGT			30min	5min		20sec	20sec	60sec					
ABPV	F	7466	1	TGCAGTCCAGAAGTTAAGA	686	VP2-VP3	50°C	95°C	40	95°C	55°C	72°C					Bakonyi et al., 2002b
	R	8114	1	ATAGTRGCTCGCCAATATGA			30min	5min		20sec	20sec	60sec					
ABPV	F	7947	2	GTGCTATCTTGAATACTAC	619	VP3	50°C	95°C	40	95°C	55°C	72°C				IAPV? KBV?	Bakonyi et al., 2002b Berenyi et al., 2006
	R	8527	3	AAGGYTTAGGTTCTACTACT			30min	5min		20sec	20sec	60sec					
ABPV	F	8134	3	CATATTGGCGAGCCACTATG	398	VP3	42°C	94°C	40	94°C	55°C	72°C				IAPV? KBV?	Bakonyi et al., 2002a; Yue et al., 2006 Siede and Büchler, 2006
	R	8493	2	CCACTCCACACAACATCG			60min	3min		60sec	60sec	60sec					
ABPV	F	8145	2	AGCCACTATGTGCTATCGTAT	202	VP3	50°C	95°C	40	94°C	55°C	72°C				IAPV? KBV?	Grabensteiner et al., 2007
	R	8311	3	ATGGTGACCTCTGTGCATTA			30min	2min		30sec	30sec	60sec					
ABPV	F	8232	2	TCCTATATCGACGACGAAAGACAA	65	VP3	48°C	95°C	40	95°C	-	60°C				primers?	Chantawannakul et al., 2006
	R	8251	3	GCGCTTTAATTCACCAATTGA			30min	10min		15sec	-	60sec					
ABPV	F	8250		Fam-TTTCCTCCCGGACTTGAC-Tamra													
	F	8137	3	ATTGGCGAGCYACTATGTGC	858	VP1	50°C	95°C	40	95°C	55°C	72°C					Bakonyi et al., 2002b
R	8957	1	CGCGGTAYTAAGAAGCTACG	30min			5min	20sec		20sec	60sec						
ABPV	F	8484	2	TTATGTGTCCAGAGACTGTATCCAI	900	VP1	50°C	94°C	35	94°C	60°C	72°C					Benjeddou et al., 2001; Topley et al., 2005 Antunez et al., 2005, 2006
	R	9336	-	GCTCCTATTGCTCGGTTTTTCGGTI			30min	2min		30sec	30sec	30sec					
ABPV	F	8697	2	TCTGATGATGCTGAAGAGAGAAA	500	VP1	42°C	95°C	35	95°C	54°C	72°C					Weinstein-Teixeira et al., 2008
	R	9172	3	AATCATCATTGCCGGCTCTA			50min	2min		30sec	60sec	60sec					
ABPV	F	8713	3	GGAACATGGGAAGCATTATTG	687	VP1	50°C	95°C	40	95°C	55°C	72°C					Bakonyi et al., 2002b
	R	9362	-	AATGCTTCTCGAACCATAG			30min	5min		20sec	20sec	60sec					

VIRUS		3'	#	PRIMER	SIZE	LOCATION	RT	denat.	cycl.	denat.	ann.	ext.	E	thresh.	cross-amp	REFERENCE	
KBV	F	3029	3	ATGACGATGATGAGTTCAAG	290	pre-3C pro	42°C	94°C	35	94°C	50°C	72°C					Shen et al., 2005a
	R	3282	1	AATTGCAAGACGGCATC													
KBV	F	4428	1	CAAACTGCTGAATCAATGTCAAAAT	122	3C-pro	50°C	95°C	44	95°C	-	60°C			ABPV?		Cox-Foster et al., 2007
	R	4502	3	ACATGCCTCTACTTTGTCCACATTCA													
KBV	F	5407	2	GTGGGTCGACACATTGAAAGA	449	RdRp	50°C	94°C	35	94°C	57°C	72°C					Meeus et al., 2010
	R	5817	1	TTGTTGCGGGGTTTCTCTGA													
KBV	F	5437	1	CGTCGACCTATTGAAAAAGTTAATCA	69	3C-pro	25/50°C	95°C	40	95°C	58°C	72°C			ABPV?		Gauthier et al., 2007
	R	5458	2	TGAGAAGTCCATTGGTCCATTG													
KBV	F	5425	2	GATGAACGTCGACCTATTGA	414	RdRp	37°C	94°C	35	94°C	57°C	72°C			ABPV?		Stoltz et al., 1995; Hung & Shimanuki, 1999
	R	5800	2	TGTGGGTTGGCTATGAGTCA													
KBV	F	5561	3	ATGAAGTGTCTATTGGAACG	550	RdRp	50°C	94°C	35	94°C	57°C	68°C*			IAPV?		Evans and Hung, 2000
	R	6069	1	ttcgaaccctcgccctccaactcc													
KBV	F	6216	1	GCCTAATTGGTGTGCGAGGAG	769	RdRp-VP2	50°C	95°C	45	95°C	-	60°C			ABPV?		Cox-Foster et al., 2007
	R	6966	1	GCTTTCCACCAGCTTTCAA													
KBV	F	6639	1	CCATACCTGCTGATAACC	200	VP2	50°C	95°C	40	95°C	-	58°C					Locke et al., 2012
	R	6801	1	CTGAATAATACTGTGCGTATC													
KBV	F	7568	3	gggatccGTTTCTATGCAAATCGCA	282	VP4	42°C	94°C	30	94°C	59°C	72°C					Todd et al., 2007
	R	7806	1	aagctTCCAGGCACATTCTG													
KBV	F	8269	2	ACCAGGAAGTATCCCATGGTAAG	69	VP3	48°C	95°C	40	95°C	-	60°C			primers?		Chantawannakul et al., 2006
	R	8304	3	TGGAGCTATGTTCCGTTCCAG													
	p	8296		Fam- CCGCAGATAACTTAGGACATCAATCACA- Tamra											probe?		
IAPV	F	92	-	CGACATTAGTTAAGTTACAATTACACG	998	5'NTR	50°C	95°C	45	95°C	-	60°C					Palacios et al., 2008
	R	1042	3	TTTCTTCAACATCTCCTGAAAGG													
IAPV	F	5372	2	AATGTGGGTTGATACATTGAAAGA	451	RdRp	50°C	94°C	35	94°C	57°C	72°C					Meeus et al., 2010
	R	5805	1	CGTTGCGGGATTCCAGA													
IAPV	F	5473	3	AATGGACCAATGGATTYYCWATWGCT	136	RdRp	50°C	95°C	44	95°C	-	60°C			KBV?		Palacios et al., 2008
	R	5554	3	CGAACAGTTTTACTCCAGTCYTGAGARTAC													
IAPV	F	5418	2	CGTCGACCCATTGAAAAAGT	403	RdRp	50°C	95°C	45	95°C	-	60°C			ABPV		Cox-Foster et al., 2007
	R	5783	1	GGTTGGCTGTGTGCATCAT													
IAPV	F	6146	1	CGATGAACAACGGAAGGTTT	766	RdRp-VP2	50°C	95°C	45	95°C	-	60°C			ABPV?		Cox-Foster et al., 2007
	R	6874	3	ATCGGCTAAGGGGTTTGT													
IAPV	F	6627	1	CCATGCCTGGCGATTAC	203	VP2	50°C	95°C	40	95°C	-	58°C					Locke et al., 2012
	R	6792	1	CTGAATAATACTGTGCGTATC													
IAPV	F	7910	1	CGAACTGGTGACTTGAAGG	110	VP3	50°C	95°C	44	95°C	-	60°C					Cox-Foster et al., 2007
	R	7985	1	GCATCAGTCGCTTCCAGGT													
IAPV	F	7911	1	CGAACTGGTGACTTGARGG	114	VP3	48°C	95°C	40	95°C	-	60°C					Evison et al., 2012
	R	7986	1	RCRTCAGTCGCTTCCAGGT													
	P	7977		Fam-TTGCGGCAATCCAGCCGTGAAAC- Tamra													
IAPV	F	7987	3	CCAGCCGTGAAACATGTTCTTACC	225	VP3	50°C	95°C	44	95°C	-	60°C			KBV?		Palacios et al., 2008
	R	8164	3	ACATAGTTGCACGCCAATACGAGAAC													

VIRUS		3'	#	PRIMER	SIZE	LOCATION	RT	denat.	cycl.	denat.	ann.	ext.	E	thresh.	cross-amp	REFERENCE
IAPV	F	7795	3	GGTCCAAACCTCGAAATCAA	839	VP3	50°C	95°C	45	95°C	-	60°C			KBV?	Palacios et al., 2008
	R	8596	3	TTGGTCCGGATGTTAATGGT			2min	10min		15sec	-	60sec				
IAPV	F	8880	2	AGACACCAATCACGGACCTCAC	135	VP1	42°C	95°C	40	92°C	62°C	72°C			KBV?	Maori et al., 2007a; 2007b
	R	8976	2	GAGATTGTTTGAGAGGGGTGG			60min	10min		30sec	30sec	30sec				
IAPV	F	8880	2	AGACACCAATCACGGACCTCAC	475	VP1-3'	42°C	95°C	40	92°C	65°C	72°C				Maori et al., 2007a; 2007b
	R	9336	-	AGATTTGTCTGTCTCCCAGTGCACAT			60min	10min		30sec	30sec	30sec				
ABPV, KBV, IAPV	F	7259	1	ggatcCAGTCTATATGTGGT	543	VP4	42°C	94°C	30	94°C	59°C	72°C				Todd et al., 2007
	R	7763	1	aagctTCCAGGCACATTCTG			30min	2min		30sec	30sec	30sec				
ABPV, KBV, IAPV	F	8140	3	GGCGAGCCACTATGTGCTAT	401	VP1	50°C	94°C	35	94°C	50°C	68°C*				Evans, 2001
	R	8507	1	ATCTTCAGCCCACTT			30min	2min		30sec	30sec	45sec				
BQCV	F	379	-	GCAAGCTCTTCCAATGATAG	322	5'NTR	50°C	95°C	40	94°C	55°C	72°C				Grabensteiner et al., 2007
	R	700	-	AAGATTACGCCGAGTCCTTA			30min	15min		30sec	30sec	60sec				
BQCV	F	2578	2	AGTAGTTGCCATGTACTTCC	472	pre	50°C	95°C	40	94°C	55°C	72°C				Berenyi et al., 2006
	R	3011	2	CTTAGTCTTACTCGCCACTT			30min	15min		30sec	50sec	60sec				
BQCV	F	4630	1	GGACGAAAGGAAGCCTAAAC	424	RdRp	50°C	94°C	35	94°C	55°C	72°C				Tentcheva et al., 2004b
	R	5015	2	ACTAGGAAGAGACTTGCACC			60min	2min		30sec	30sec	60sec				
BQCV	F	4728	3	CCAATAGTAGCGGTATTATCTGAG	177	RdRp	50°C	95°C	40	95°C	58°C	72°C				Highfield et al., 2009
	R	4858	1	AGCGTATAATATGTCGGACTGTTC			30min	10min		15sec	20sec	20sec				
BQCV	F	5033	2	GGTGCAAGTCTTCTCCTAG	606	RdRp	42°C	95°C	40	95°C	50°C	72°C				Blanchard et al., 2007
	R	5600	2	AATAACCTGAAAGGCCAAGAG			60min	2min		10sec	10sec	20sec				
BQCV	F	6682	3	TCCTCAAATCTGGAGCGAAC	141	RdRp	42°C	95°C	35	95°C	60°C	72°C				Runckel et al., 2011
	R	6785	1	GTATTCGCTGGCCGTA AAAAC			12hrs	10min		30sec	30sec	30sec				
BQCV	F	7874	1	TGGTCAGCTCCCACTACCTTAAACI	701	VP1	50°C	94°C	35	94°C	60°C	72°C				Benjeddou et al., 2001; Chen et al. 2004a
	R	8526	-	GCAACAAGAAGAAACGTAAACCACI			30min	2min		30sec	30sec	30sec				
BQCV	F	7893	1	AGTGCGGAGATGATGTC	294	VP1	50°C	95°C	40	95°C	-	58°C				Locke et al., 2012
	R	8150	1	GGAGGTGAAGTGGCTATATC			10min	5min		10sec	-	30sec				
BQCV	F	7905	2	GGAGATGATGCGCTTATCGAGI	317	VP1	58°C	94°C	35	94°C	63°C	68°C**				Topley et al., 2005
	R	8175	2	CACCAACCGCATAATAGCGATTGI			30min	2min		30sec	30sec	60sec				
BQCV	F	7953	2	AAGGGTGGGATTCGTCAG	306	VP1	48°C	95°C	40	95°C	61°C	72°C				Kukielka et al., 2008
	R	8219	1	GGCGTACCGATAAAGATGGA			30min	10min		45sec	60sec	60sec				
BQCV	F	8214	2	GGTGCGGAGATGATGGA	71	VP1	48°C	95°C	40	95°C	-	60°C				Chantawannakul et al., 2006
	R	8244	2	GCCGTCTGAGTGCATGAATAC			30min	10min		15sec	-	60sec				
	P	8241		Fam-TTTCCATCTTTATCGGTACGCCGCC-Tamra												
DWV	F	1153	2	ATTA AAAATGGCCTTTAGTTG	694	L-prot	50°C	95°C	40	94°C	58°C	72°C				de Miranda and Fries, 2008
	R	1806	1	CTTTTCTAATTCACCTCACC			30min	15min		60sec	60sec	60sec				
DWV	F	1425	1	CGTCGGCCTATCAAAG	417	L-prot	50°C	95°C	40	95°C	-	58°C				Forsgren et al., 2009 Yañez et al., 2012
	R	1806	1	CTTTTCTAATTCACCTCACC			10min	5min		10sec	-	30sec				
DWV	F	1183	2	CTTACTCTGCGTCGCCCA	194	L-prot	48°C	95°C	40	95°C	55°C	68°C				Chen et al., 2004b, 2004c
	R	1338	1	CCGTTAGGAACCTCATTATCGAG			45min	2min		30sec	60sec	120sec				

VIRUS		3'	#	PRIMER	SIZE	LOCATION	RT	denat.	cycl.	denat.	ann.	ext.	E	thresh.	cross-amp	REFERENCE
DWV	F	2360	2	ATTGTGCAAGATTGGACTAC	434	VP2-VP1	50°C	95°C	40	94°C	55°C	72°C				Berenyi et al., 2006
	R	2755	2	AGATGCAATGGAGGATACAG			30min	15min		30sec	50sec	60sec				
DWV	F	2452	2	CAACTACCTGTAATGTCTGTCGTGTT	206	VP4	42°C	95°C	40	95°C	59°C	72°C				Yang and Cox-Foster 2005
	R	2611	2	GACAAAATGACGAGGAGATTGTT			60min	10min		30sec	60sec	60sec				
DWV	F	2639	3	CTCGTCATTTTGTCCCGACT	424	VP1	42°C	94°C	35	94°C	51.5°C	72°C				Williams et al., 2009
	R	3024	1	TGCAAAAGATGCTGTCAAACC			60min	8min		55sec	55sec	85sec				
DWV	F	2730	1	ACGACACAACATCCTGTAG	621	VP1	42°C	94°C	35	94°C	50°C	72°C				Shen et al., 2005b
	R	3313	2	TAAACTAGGTTGGACTGGAA			60min	5min		20sec	20sec	60sec				
DWV	F	3739	2	CCTGCTAATCAACAAGGACCTGG	355	VP3	50°C	95°C	35	94°C	54.3°C	72°C				Genersch 2005
	R	4047	1	CAGAACCAATGTCTAACGCTAACCC			30min	15min		30sec	60sec	30sec				
DWV	F	4244	3	ATCGTAGACTGGAAGGATGGTCC	568	pre Hel.	50°C	95°C	35	94°C	54.3°C	72°C				Genersch 2005
	R	4766	3	GAGAAGACATTTGCTTGAACCTCC			30min	15min		30sec	60sec	30sec				
DWV	F	4259	3	GGTCCGCGGCTAAGATTGTA	420	pre Hel.	42°C	95°C	40	95°C	50°C	72°C				Blanchard et al., 2007
	R	4638	1	CGCTGTTTGATGGAAGAAGTT			60min	2min		10sec	10sec	20sec				
DWV	F	4800	1	GCAAATGCTTCTCACTGGTGTCTC	516	Hel.	50°C	95°C	35	94°C	54.3°C	72°C				Genersch 2005
	R	5270	3	TGCTTTCAAATCTCAGGCTCG			30min	15min		30sec	60sec	30sec				
DWV	F	5307	1	AGCATGGGTGAAGAAATGTC	103	Hel.	50°C	95°C	40	95°C	-	58°C				Shah et al., 2009
	R	5371	2	ATATGAATGTGCCCAAACA			10min	5min		10sec	-	30sec				
DWV	F	5786	3	TTTCCAGGTCCATTCCTATC	393	Hel.	50°C	95°C	35	94°C	54.3°C	72°C				Genersch 2005
	R	6136	2	TCATTCGCCTTACGACGGTTAG			30min	15min		30sec	60sec	30sec				
DWV	F	6152	3	TGGCTAACCGTCGTAAGGCG	210	Hel.	60°C	95°C	40	95°C	60°C	72°C				Zioni et al., 2011
	R	6322	2	TAACTGACGCACTAATTTCCG			45min	10min		10sec	15sec	20sec				
DWV	F	6269	3	ATCAGCGCTTAGTGGAGGAA	702	VpG	48°C	95°C	40	95°C	55°C	68°C				Chen et al., 2004c; 2005a
	R	6941	3	TCGACAATTTTCGGACATCA			45min	2min		30sec	60sec	120sec				
DWV	F	6490	2	GAGATTGAAGCGCATGAACA	311	VpG	45°C	94°C	40	94°C	55°C	68°C				Zhang et al., 2012
	R	6762	1	GAAAGCCGAGTTGAAGATGA			45min	2min		30sec	60sec	120sec				
DWV	F	6785	3	TCATCTTAACTCGGCTTTCTACG	479	VpG	50°C	95°C	35	94°C	54.3°C	72°C				Genersch 2005
	R	7221	1	CGAATCATTTTCACGGGACG			30min	15min		30sec	60sec	30sec				
DWV	F	6699	1	GTAAGCGTCGTGAACATACTG	1129	VpG 3C-pro	55°C	94°C	30	94°C	55°C	72°C				Ongus et al., 2004
	R	7790	3	GACTCCTCTCCCGCGAGA			60min	5min		30sec	30sec	120sec				
DWV	F	7349	3	CGAAACCAACTCTGAGGAA	174	3C-pro	42°C	94°C	30	94°C	59°C	72°C				Li et al., 2011
	R	7484	3	GTGTTGATCCCTGAGGCTTA			30min	2min		30sec	30sec	30sec				
DWV	F	7472	3	ggatCCTAGAATCCATAGATTG	495	3C-pro	42°C	94°C	30	94°C	59°C	72°C				Todd et al., 2007
	R	7926	1	aagctTATGGTCGCCAGTTAC			30min	2min		30sec	30sec	30sec				
DWV	F	7495	2	TGCCACTTACTACTAAGCCTCAGGG	596	3C-pro	50°C	95°C	35	94°C	54.3°C	72°C				Genersch 2005
	R	8047	2	CGAACCACAAACCATCGC			30min	15min		30sec	60sec	30sec				
DWV	F	8415	2	GGAAGCAACCAATCCGATGTCATCAG	378	RdRp	50°C	95°C	40	95°C	55°C	72°C				Fujiyuki et al., 2004; 2006; 2009
	R	8745	2	GAATGCGTCCCGAATTGAGA			60min	2min		1sec	10sec	10sec				
	P	8679	?	CCTTTGTCTTCATTAAGCCACCTGG-?												
				?												
	P	8716		GCATCAGGTAAGCGATGGTTGTTGACATT GAGCTA-?												

VIRUS		3'	#	PRIMER	SIZE	LOCATION	RT	denat.	cycl.	denat.	ann.	ext.	E	thresh.	cross-amp	REFERENCE
DWV	F	8591	3	CTGTATGTGGTGTGCCTGGT	250	RdRp	48°C	95°C	40	95°C	61°C	72°C				Kukielka et al., 2008
	R	8797	2	TTCAAACAATCCGTGAATATAGTGT												
DWV	F	8581	2	TTTGCAAGATGCTGTATGTGG	395	RdRp	50°C	94°C	35	94°C	55°C	72°C				Tentcheva et al., 2004a; 2004b
	R	8936	3	GTCGTGCAGCTCGATAGGAT												
DWV	F	8644	2	TAGTGCTGGTTTTCCCTTGTGTC	145	RdRp	49°C	95°C	40	95°C	54°C	72°C				Highfield et al., 2009
	R	8745	1	CTGTGTCGTTGATAATTGAATCTC												
DWV	F	8668	1	TTCATTAAGCCACCTGGAACATC	136	RdRp	50°C	95°C	40	95°C	-	60°C				Forsgren et al., 2009
	R	8757	1	TTTCCCTCATTAAGTGTGTCGTTGA												
	P	8746		Fam-TCAAGT[Dabcyl]TCGGGACGATTCCACGC												
DWV	F	8730	1	GGATGTTATCTCCTGCGTGGAA	69	RdRp	50°C	95°C	40	95°C	-	60°C				Tentcheva et al., 2006
	R	8751	1	CCTCATTAACTGTGTCGTTGATAATTG												
DWV	F	8824	2	ATATTCACGGATTGTTGAAAGA	607	RdRp	50°C	94°C	35	94°C	57°C	72°C				Meeus et al., 2010
	R	9384	1	CRCTAACATTCATGATAAGATCGTC												
DWV	F	9273	1	TCCATCAGGTTCTCCAATAACGG	451	RdRp	50°C	95°C	35	94°C	54.3°C	72°C				Genersch 2005
	R	9678	1	CCACCCAAATGCTAACTCTAACGC												
DWV	F	9608	3	CCTGGACAAGTCTCGGTAGAA	125	RdRp	48°C	95°C	40	95°C	-	60°C				Chantawannakul et al., 2006
	R	9692	3	ATTCAGGACCCACCCAAAT												
	P	9650		Fam-CATGCTCGAGGATTGGGTGTCGT-Tamra												
VDV-1	F	1409	1	GCCTGTTCAGAACATG	413	Lp	50°C	95°C	40	95°C	-	58°C				Locke et al., 2012
	R	1806	1	CTTTTCTAATTCAACTTCACC												
VDV-1	F	6130	3	TGGCTAATCGACGTAAGCA	200	Hel.	60°C	95°C	40	95°C	60°C	72°C				Zioni et al., 2011
	R	6289	3	ACTAATCTCTGAGCCAACACGT												
VDV-1	F	6677	1	CGAAACGAAGAGAGCATGTAT	1129	VpG	55°C	94°C	30	94°C	55°C	72°C				Ongus et al., 2004
	R	7768	3	CGACTCTCCCGACTAAG												
SBV	F	240	2	ACCAACCGATTCTCAGTAG	469	L-pro	50°C	95°C	40	95°C	55°C	72°C				Grabensteiner et al., 2001; 2007
	R	670	3	CCTTGGAAGTCTGCTGTGTA												
SBV	F	321	2	AAGTTGGAGGCGGYATTTG	70	L-pro	48°C	95°C	40	95°C	-	60°C				Chantawannakul et al., 2006
	R	342	2	CAATGTCTTCTACDAGAAGYAAGGATTG												
	P	335		Fam-CGGAGTGGAAAGAT-Tamra												
SBV	F	1932	2	CACTCAACTTACAAAAAC	211	VP1	42°C	94°C	35	94°C	50°C	72°C				Shen et al., 2005a
	R	2104	3	CATTAACACTCTCACTTTC												
SBV	F	2370	2	GTGGCAGTGCAGATAATCC	816	VP1	50°C	95°C	40	95°C	55°C	72°C				Grabensteiner et al., 2001
	R	3147	2	GTCAGAGAATGCGTAGTCC												
SBV	F	3127	3	GGTGTCTAACTTTTATGGACCACCA	103	Hel.	42°C	95°C	35	95°C	60°C	72°C				Runckel et al., 2011
	R	3206	3	CCTTTTCTATGCTATCATCCATCTGA												
SBV	F	3164	1	TTGGAACACGCATTCTCTG	335	Hel.	50°C	95°C	40	95°C	-	58°C				Locke et al., 2012
	R	3461	1	GCTCTAACCTCGCATCAAC												
SBV	F	3875	1	ACCGTTGCTGGAGGTAGTT	249	Hel.	50°C	95°C	40	95°C	55°C	72°C				Grabensteiner et al., 2001
	R	4085	1	GCCGCATTAGCTCTGTAGT												

VIRUS		3'	#	PRIMER	SIZE	LOCATION	RT	denat.	cycl.	denat.	ann.	ext.	E	thresh.	cross-amp	REFERENCE
SBV	F	4978	3	GCTGAGGTAGGATCTTTGCGT	824	pre	48°C	95°C	40	95°C	55°C	68°C				Chen et al., 2004; 2005b; 2006a
	R	5781	1	TCATCATCTCCACCATCCGA		3C-pro	45min	2min		30sec	60sec	120sec				
SBV	F	5330	1	CGAGTGTGTGTGTGTAAGAGA	340	pre	48°C	95°C	40	95°C	57°C	72°C				Kukielka and Sanchez-Vizcaino, 2009
	R	5628	2	CGAAGGGTGAAGTGTAGCAG		3C-pro	30min	10min		30sec	30sec	30sec				
SBV	F	5726	1	ATATACGGTGCAGAACTGC	879	pre	50°C	95°C	40	95°C	55°C	72°C				Grabensteiner et al., 2001
	R	6566	1	CTCGGTAATAACGCCACTGT		3C-pro	30min	5min		20sec	20sec	60sec				
SBV	F	7766	1	GGATGAAAGGAAATTACCAG	426	RdRp	50°C	94°C	35	94°C	55°C	72°C				Tentcheva et al., 2004b Antunez et al., 2006
	R	8154	2	CCACTAGGTGATCCACACT			60min	2min		30sec	30sec	60sec				
SBV	F	8057	1	AATGGTGGCGGTGGACTATGG	579	RdRp	50°C	95°C	40	95°C	55°C	72°C				Grabensteiner et al., 2001
	R	8597	1	TGATACAGAGCGGCTCGACA			30min	5min		20sec	20sec	60sec				
SBV	F	8192	1	GTGGCGCGCCACTACTGTAGTGI	435	RdRp	58°C	94°C	35	94°C	63°C	68°C**				Topley et al., 2005
	R	8580	1	CTCGACAATTCTCCCTAGTAGCCI			30min	2min		30sec	30sec	60sec				
SBPV	F	3177		GCGCTTTAGTTCAATTGCC	226	Hel.	50°C	95°C	40	95°C	-	58°C	1,81		Rotham. Harpen.	de Miranda et al., 2010b
	R	3363		ATTATAGGACGTGAAAAATATAC			10min	5min		10sec	-	30sec				
SBPV	F	3179		GCTTTAGTTCAATTGCCTC	224	Hel.	50°C	95°C	40	95°C	-	58°C	1,79			de Miranda et al., 2010b
Rotham.	R	3363		ATTATAGGACGTGAAAAATATAC	224	Hel.	50°C	95°C	40	95°C	-	58°C	1,80			de Miranda et al., 2010b
SBPV	F	3179		GCTTTAGTTCAATTGCCTC	224	Hel.	50°C	95°C	40	95°C	-	58°C	1,80			de Miranda et al., 2010b
SBPV	F	8202		GTTTGCCTCCTATTACATTGATTG	167	RdRp	50°C	95°C	40	95°C	-	58°C	2,01		Rotham. Harpen.	de Miranda et al., 2010b
R	8348		AATACCTATGCCATGCTGACC			10min	5min	10sec		-	30sec					
SBPV	F	8383		TGATTGGACTCGGCTTGCTA	74	RdRp	50°C	95°C	40	95°C	-	58°C	2,05			de Miranda et al., 2010b
Rotham.	R	8456		CAAAATTTGCATAATCCCCAGTT			10min	5min		10sec	-	30sec				
SBPV	P	8746		Fam-CCTGCATGAGGTGGGAGACAACATTG-Tamra	868	RdRp	50°C	95°C	40	95°C	-	58°C				de Miranda et al., 2010b
F	8156		GATTTGCGGAATCGTAATATTGTTTG													
Rotham.	R	9023		ACCAGTTAGTACACTCCTGGTAACCTCG	296	RdRp	50°C	95°C	40	95°C	-	58°C				Locke et al., 2012
CBPV-1	F	1818	2	CAACCTGCCTCAACACAG	296	RdRp	50°C	95°C	40	95°C	-	58°C				Chantawannakul et al., 2006
R	2077	1	AATCTGGCAAGGTTGACTGG			10min	5min	10sec		-	30sec					
CBPV-1	F	2902	2	TCTGGCTCTGTCTTCGAAA	68	RdRp	48°C	95°C	40	95°C	-	60°C				Chantawannakul et al., 2006
R	2930	3	GATACCGTCGTCACCCTCATG			30min	10min	15sec		-	60sec					
CBPV-1	P	2928		Fam-TGCCCAACAATAGTTGGCAGTCTGC-Tamra	455	RdRp	42°C	95°C	30	95°C	55°C	72°C				Ribiere et al., 2000; 2002
F	2605	-	AGTTGTCATGGTTAACAGGATACGAG													
R	3011	3	TCTAATCTTAGCACGAAAAGCCGAG	101	RdRp	42°C	95°C	40	95°C	50°C	72°C				Blanchard et al., 2007; 2012	
CBPV-1	F	2413	3	CGCAAGTACGCCCTTGATAAAGAAC	101	RdRp	42°C	95°C	40	95°C	50°C	72°C				Blanchard et al., 2007; 2012
R	2468	1	ACTACTAGAAACTCGTCGCTTCG			60min	2min	10sec		10sec	20sec					
CBPV-1	P	2443		Fam-TCAAGAACGAGACCACCGCAAGTTC-Tamra	570	RdRp	42°C	95°C	30	95°C	55°C	72°C				Blanchard et al., 2008
F	1943	1	TCAGACACCGAATCTGATTATTG													
R	2468	1	ACTACTAGAAACTCGTCGCTTCG	455	RdRp	50°C	94°C	35	94°C	55°C	72°C				Tentcheva et al., 2004b; Chen et al. 2005b	
CBPV-1	F	2605	-	AGTTGTCATGGTTAACAGGATACGAG	455	RdRp	50°C	94°C	35	94°C	55°C	72°C				Antunez et al., 2005; 2006
R	3011	3	TCTAATCTTAGCACGAAAAGCCGAG			60min	2min	30sec		30sec	60sec					

VIRUS		3'	#	PRIMER	SIZE	LOCATION	RT	denat.	cycl.	denat.	ann.	ext.	E	thresh.	cross-amp	REFERENCE
CBPV-1	F	2687	-	TGTCGAAGCTGAGGATCTTAC	315	RdRp	50°C	95°C	40	94°C	55°C	72°C				Berenyi et al., 2006
	R	2964	1	GACCTGATTAACGACGTTAG												
CBPV-2	F	128	-	ACTCCCGTCGTTGTGTTCTC	895	Capsid	50°C	94°C	35	94°C	55°C	68°C				Blanchard et al., 2009
	R	984	2	GGCGATTGGTATTGTTGG												
CBPV-2	F	750	2	GGCGTTATTTCTCCAACCTC	203	Capsid	50°C	95°C	40	95°C	-	58°C				de Miranda et al., unpublished
	R	914	1	GGTAGGATAAGCATGGCCTT												
LSV-1	F	2368	1	TTATCTCGCGCCGCCACCTC	673	RdRp	42°C	95°C	35	95°C	60°C	72°C				Runckel et al., 2011
	R	3002	2	ATCGCCGCTGCAACGTGACC												
LSV-1	F	2589	3	AGAGGTTGCACGGCAGCATG	174	RdRp	42°C	95°C	35	95°C	60°C	72°C				Runckel et al., 2011
	R	2724	3	GGGACGCAGCACGATGCTCA												
LSV-2	F	1741	1	CGTGCTGAGGCCACGTTGT	226	RdRp	42°C	95°C	35	95°C	60°C	72°C				Runckel et al., 2011
	R	1928	2	GCGGTGTCGATCTCGCGGAC												
LSV-2	F	3954	3	CGGCCGGTCTAGCGTGGTTG	559	Capsid	42°C	95°C	35	95°C	60°C	72°C				Runckel et al., 2011
	R	4429	2	TGGCAAGCTGTGACGAATCCCT												
LSV-1&2	F	2368	2	TTATCTCGCGCCGCCACCTC	188	RdRp	42°C	95°C	35	95°C	60°C	72°C				Runckel et al., 2011
	R	2516	2	AGAGGGTACCGGACACCCATG												
LSV-1&2	F	4494	2	CTTGAGACTCAGGGATTCGTAC	206	Capsid	42°C	95°C	35	95°C	60°C	72°C				Runckel et al., 2011
	R	4686	1	AGGGACGACGGAGCACAAAT												
BSRV	F	5853	2	GCGCCTATTTCTGCAGCGCC	312	RdRp	42°C	95°C	35	95°C	60°C	72°C				Runckel et al., 2011
	R	6134	1	CCCGGATATAATTGCGTTTGTGAGC												
BSRV	F	?	?	RGTGCAGCTTATGCGTTGCC	519	RdRp	42°C	95°C	35	95°C	60°C	72°C			primer?	Runckel et al., 2011
	R	5287	1	CCGCTGTTGAGAATAAGGATATCCAGG												
ALPV	F	5854	3	ACACCATAGTTCGCGAAGAACGCA	142	RdRp	42°C	95°C	35	95°C	60°C	72°C				Runckel et al., 2011
	R	6046	3	GCAGCACCGGAAACGTTTTATGG												
ALPV	F	6134	3	AACGTCGTATGCTACGATGAACCTCG	465	RdRp	42°C	95°C	35	95°C	60°C	72°C				Runckel et al., 2011
	R	6548	3	GGGTTAAATCAATCCAGTACCACGG												
VdMLV	F	?		GCTCGTATTCCTGCTACTCC	152	RdRp	50°C	95°C	40	95°C	-	58°C				Locke et al., 2012
	R	?		TTGACGGATTGAGGGATGC												
AcIV	F	?	3	GGCTAGTAAACGTAGTGGATATGACAAT	95	capsid	48°C	95°C	40	95°C	-	60°C				Chantawannakul et al., 2006
	R	?	2	CACCTGGTGGTCCAAGAGAAG												
	P			TGATTGAAAATATATCTTCTTTAATAAACCCA GTTGCTCC												

