GBlock® gene fragments

G-block gene fragments can be directly ordered from **idtdna.com**

List of Gblocks®

Virus	Gblock® sequences
HAdV	ATGATGCCGCAATGGTCTTACATGCACATCGCCGGGCAGGACGCCTCGGAGTATCTGAGCCCGGGCACACACA CACACCTGGTGCAATTTGCCCGCGCCACCGATACGTACTTCAGCCTGGGGAACAAGTTCAGAAATCCCGCTGC GATTCGTGCCAGTCGACCGCGAGGACACCGCTTATTCTTACAAAGTGCGCTTTACGCTGGCCGTGGGCGACAA CCGGGTGTTGGACATGGCCAGCACCTACTTTGACATCCGCGGCGTGCTGGATCG
JCPyV VP1 region and IG region	TTCCTCCCTATTCAGCACTTTGTCCATTTTAGCTTTTTGCAGCAAAAAATTACTGCAAAAAAGGGAAAAACAAG GGAATTTCCCTGGCCTCCTAAAAAGCCTCCACGCCCTTACTACTTCTGAGTAAGCTTGGAGGCGGAGGCGGCC TCGGCCTCCTCACACACAAAAAAAAAGGGAAGGGATGAGCCAGAGCTGTTTTGGCTTGTCACCAGCTGGCCAT GGTTCTTCGCCAGCTGTCACGTAAGGCTTCTGTGAAAGTTAGTAAAACCTGGAGTGGAACTAAAAAAAGAGCT CAAAAAGACAGAGACACAGTGGTTTGGAATTCGGAAAGTCTTTAGGGTCTTCTACCTTTTTCACACACATTTCT TTTTAGGTGGGGTAGAGTGTTGGGATCCTGTGTTTTCATCATCACTGGCAAACATTTGAATTCGTTGAATGTTG GGTTCCTGATCCCACCAGAAATGAAAACACAAGATATTTTGGGACACTAACAGGAGGAGAAAATGTTCCTCCA GTTCTTCATATAACAAACACTGCCACAACAGTGTTGCTTGATGAATTTGGTGTGAAAGCCCACACACATGTGAA AAGTGCAGTTTTCCTGTGTGTCTGCACCAGAGGCTTCTGAGACCTGGGAAAAGCATTGTGATTGTGATTCAGT GCTTGATCCATGCCAGAGTCTTCTGCTTCAGAATCTTCCTCTCTAGGAAAGTCAAGAATGGGTCTCCC
PAdV and OPyV	TCCCCGGATGTCATGGACAACGTCAACCCCTTCAACCACCACCGGCTCCTGGGCAACGGCCGCTACTGCAAGTT CCACATCCAGGTGCCGCAAAAGTTCTTTGCCCTCAAGAGCCTGCTGCTCCTGCCGGGGGCGACCGGCCAACGT CACCAACCTGCCCATCTCCATTCCCAGCCGCAACTGGCCGCATCAGCATCCAGTTCGACTCCTCCGTGGCCTGC ACACCCATGGACACAGAGATGGCCTCTTTCTCACAGCTGCAGACATTGTGGGCATGATTACCAAGCCAGACAG TGGGCACATGGCTTTTCGTGGGCTCCCAAGGTACTTCAATGTCACTCTAAGAAAGAGAGTGGTTAAGAACCCA TATCCTGTTAGCACATTGCTGAACTCTCTCTTTTCAAATCTTATGCCCAGATTGGAAGGCCAGGCCATGACTGG AGATAAATCC
BPyV and Ch/TyPV	GAAAAGGTATTCGCCCTCTGCTGGTCAAGGCTCAGCAATATGTGAGGATTTCAAAGCCCCCTATCATCCCACAG TACCCAGGTGCTAGATCCTACCCTCAAGGGAATTCTAGACAAAGATGGTGTGTATCCTGTTGAGTGTTGGTGTC CAGATCCAAGTAAAAATGAACCGCTTCTTGATGAGAATGGCGTAGGCCCGCAGACTGGTGAAGAACCCATACC CCATTGCCAGCATACTCACACCCATGGACACGGTAATTGGAATTGTGATACTATATGGGCTGAAAATAAGCCG CCATTGTGTCTGTCTTATGCGTGACATGGATCAGCGTGCACTTTAGTCCACGAGATTGGCAACAACTAGTTAAT AATTATTCGAGATGGCGCCCACGCGCCCACACACAGTACACGTGAAAATCTTTAACCTGCAAGTCATCCAGAA AACCGTAACAGATAGCTGACAGGAACAATCCAAATATTTGCAGATCAGGAAGG
MS2	CATAAAGGTGCCTACAAGCGAAGTGGGTCATCGTGGGGTCGCCCGTACGAGGAGAAAGCCGGTTTCGGCTTC TCCCTCGACGCACGCTCCTGCTACAGCCTCTTCCCTGTAAGCCAAAACTTGACTTACATCGAAGTGCCGCAGAA CGTTGCGAACCGGGCGTCGACCGAAGTCCTGCAAAAGGTCACCCAGGGTAATTTTAACCTTGGTGTTGCTTTA GCAGAGGCCAGGTCGACAGCCTCACAACTCGCGACGCAAACCATTGCGCTCGTGAAGGCGTACACTGCCGCTC GTCGCGGTAATTGGCGCCAGGCGCTCCGCTACCTTGCCCTAAACGAAGATTA

Gblocks® were designed with small deletions to detect cross-contamination. G-block amplicons have a different length than nPCR amplicons (see amplicon length of the virus or synthetic GBlock® PCR and nPCR fragments).

List of primers and probes for each specific PCR, nPCR and qPCR.

PCR and nPCR primers (5'- 3')	qPCR primers and probes (5'- 3')
HAdV[1,2]	
Hex1deg: GCCSCARTGGKCWTACATGCACAT	AdF:CWTACATGCACATCKCSGG
Hex2deg:CAGCACSCCYCGRATGTCAAA	AdR:CRCGGGCRAAYTGCACCAG
Nehex3deg:GCCCGYGCMACYGAYACSTACTTC	AdP:6-FAM-CCGGGCTCAGGTACTCCGAGGCGTCCT-BHQ1
Nehex4deg:	
CCYACRGCCAGYGTRWAYCGMRCYTTGTA	
JCPyV[3,4,5]	
VP1 region	JE3F: GGAAAGTCTTTAGGGTCTTCTACCTTT
JR1: CCCTATTCAGCACTTTGTCC	JE3R: ATGTTTGCCAGTGATGATGAAAA
JR2: CAAACCACTGTGTCTCTGTC	JE3P:
JR3: GGGAATTTCCCTGGCCTCCT	6-FAM-AGGATCCCAACACTCTACCCCACCTAAAAAGA-BHQ1
JR4: ACTTTCACAGAAGCCTTACG	
IG region	
EP1A: TGAATGTTGGGTTCCTGATCCCACC	
EP2A: ACCCATTCTTGACTTTCCTAGAGAG	
P1A: CAAGATATTTTGGGACACTAACAGG	
P2A: CCATGTCCAGAGTCTTCTGCTTCAG	
PAdV[6,7]	
PALF: GATGTCATGGACAACGTCAAC	Q-PAdV-F AACGGCCGCTACTGCAAG
PARF: CACGGAGGAGTCGAACTGGATG	Q-PAdV-R AGCAGCAGGCTCTTGAGG
PALN: TACTGCAAGTTCCACATCCAGGT	Q-PAdV-P 6-FAM-CACATCCAGGTGCCGC-BHQ1
PARN: GGAATGGAGATGGGCAGGTT	
OPyV[8]	
Ov_FI: AGATGGCCTCTTTCTCACA	Ov_qFI: TTCTCACAGCTGCAGACATTG
Ov_RI: TTTATCTCCAGTCATGGCC	Ov_qRI: TCCAATCTGGGCATAAGATTTG
Ov_nFI: AGACATTGTGGGCATGATTA	Ov_qPI: 6-FAM-ATGATTACCAAGCCAGACAGTGGG-BHQ1
Ov_nRI: TTCCAATCTGGGCATAAGAT	
BPyV [6,9]	
VP1F: GGTATTCGCCCTCTGCTGGTCAAG	QB-F1-1: CTAGATCCTACCCTCAAGGGAAT
VP1R: GCTGGCAATGGGGTATGGGTTCT	QB-R1-1: TTACTTGGATCTGGACACCAAC
VP2F: ATTTCAAAGCCCCCTATCATC	QB-P1-2: 6-FAM-GACAAAGATGGTGTGTATCCTGTTGA-
VP2R: GCCTACGCCATTCTCATCAAG	BHQ1
Ch/TyPV[10]	
VP2-Par1: TGGAATTGTGATACTATATGGG	Q-PaV-F AGTCCACGAGATTGGCAACA
VP2-Par2: TCYTGATCTGCAAATATTTG	Q-PaV-R GCAGGTTAAAGATTTTCACG
VP2-Par3: CATTGTGTCTGTCTWATGCGTGAC	Q-PaV-Pr 6-FAM-AATTATTCGAGATGGCGCCCACG-BHQ1
VP2-Par4: GTTTTCTGGATGACTTGCA	
MS2[11]	
	pecson-2F: AAGGTGCCTACAAGCGAAGT
-	pecson-2R: TTCGTTTAGGGCAAGGTAGC
	PecP-2: 6-FAM-ATCGTGGGGTCGCCCGTACG-BHQ1

Amplicon length of the virus or synthetic GBlock® PCR and nPCR fragments

Virus	Amplicon length (bp)		Gblock® amplicón length (bp)	
	PCR	nPCR	PCR	nPCR
HAdV	313	173	263	123
JCPyV				
VP1 region	736	667	314	186
IG region	587	387	293	223
PAdV	612	344	209	108
BPyV	527	263	227	148
OPyV	227	162	211	163
Ch/TyPV	372	251	231	149

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