

Appendix Primers used in the study

Primer name	Purpose	Sequence of Primers(5'-3')
EF1 α	For RT-PCR internal control	F:AGACCACCAAGTACTACTGCAC
		R:CCACCAATCTTGTACACATCC
AP	5'RACE Universal primer	GGCCACGCGTCGACTAGTACGGGIIIGGGIIIG
AUAP		GGCCACGCGTCGACTAGTAC
T7	T-easy primer	TAATACGACTCACTATAGGG
SP6	Vector primer	ATTTAGGTGACACTATAGAA
	Degenerate primer	F:GGTCAGGGWTATGGRATGACHG
		R:TCATKGS D A C A A C D G C R G C A T C
	Silico cloning for Sequence of 5' end	F:TCCCTTTTCTCTCTGCC
		R:ATCCACTTGCTGAGCGACG
	Silico cloning for Sequence of medium	F:CCGCTAACCCGTTTACACCT
		R:TCAAGGACCACAAGAGCACG
<i>Gh4CL</i>	Silico cloning for Sequence of 3' end	F:CTTGTGTGTTTTGCCTTATTCCAC
		R:GGACATAGGATCATCGCCATACTG
	ORF full-length PCR	F:CACCTCCWCTTCACTTACTG
		R:ATCCACTTGCTGAGCGACG
	qPCR analysis	F:ATGTTGTCTTGTCTGTCTTGCC
		R:CGACCTCAGGATTCTTAGCC
<i>GhACX</i>	Degenerate primer	F:TGTTAATGAGGCTGTCACAAGTTAC

	R: CACCACAkAryTTwCGrCATTCTTC
Silico cloning for Sequence of 5' end	F:AGTTTCGTTGTTCCCTCATTATTTA R:GCAGGTAGAGACATTCCCCAGTG
Silico cloning for Sequence of medium	F:ATCTTCACTGGGGAATGTTTCTACC R: CCTCGCTTCAAATGCCTCCA
Silico cloning for Sequence of 3' end	F:CTGTGAAGTTGAAAGGGCTGAAG R:TCCACCCCCGATTTTTAAGT
ORF full-length PCR	F:GGAAAGGAGTGAAAAGACAGTTG R:AGGTAACCATCTGGCACGACT
qPCR	F:GGAAAGGAGTGAAAAGACAGTTG R:AGGTAACCATCTGGCACGACT
Silico cloning	GATGGAGGTCGAAAAC CGTCCACACCTAAACTGACCAATAAATG
5' RACE	GSP1: TGAGTCCAAGGAGCAGCA GSP2: TCTAAGCCACCTCCGAGAG GSP3: GAGATGGTGATGACTGC
ORF full-length PCR	CCGCATTTATTGGTCAGTTTAGGT GTGAACTTGAGAGCCTTACAGCCT
qPCR	TCCGCATTTATTGGTCAGTT ATAGTATCCTTTCCCGTTGTTT

2 Note: AP: Adapter Primer; AUAP: Abridged Universal Amplification Primer; F: Forward Primer R: Reverse Primer

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