

Primer name	Primer sequence (5'-3')	Description
<i>gadA5-F-KpnI</i>	GGGGTACC GGTAATGCAAACAAAACCTTGG	5' homologous region forward primer
<i>gadA5-R-HindIII</i>	CCC AAGCTT CTGAAATTCCTTTAACATC	5' homologous region reverse primer
<i>gadA3-F-PstI</i>	AACTGCAG AAGCTTGTCTAGATCATGGTATTTTC	3' homologous region forward primer
<i>gadA3-R-BamHI</i>	CGGGATCC GAGTGGATGCATTCAAAAGTAC	3' homologous region reverse primer
<i>gadB5-F-KpnI</i>	GGGGTACC GGACGGTGTGGTGGAGATGATAGTGGTGAAGATGAC	5' homologous region forward primer
<i>gadB5-R-HindIII</i>	CCC AAGCTT CATATTGTAATGTAAATGTTACACCAAGAG	5' homologous region reverse primer
<i>gadB3-F-PstI</i>	AACTGCAG TTCATGTTGATGCAGCAAGTGGTGGATTG	3' homologous region forward primer
<i>gadB3-R-BamHI</i>	CGGGATCC CGAAGATTTAGAAACCAATAAAGATGGTAATCTCTAC	3' homologous region reverse primer
<i>gabT-F⁽¹⁾</i>	GTCAGATTGAAATTACCCACCCC	Forward primer for cloning <i>gabT</i> genomic fragment
<i>gabT-R⁽¹⁾</i>	GAGGTGAGATTCCAATGTTTCGTG	Reverse primer for cloning <i>gabT</i> genomic fragment
<i>DdvGAT-F5-KpnI</i>	GGGGTACC ATGGCTTATAACTCAAGAAATAGTAGTAG	5' homologous region forward primer
<i>DdvGAT-R5-HindIII</i>	CCC AAGCTT TAAACAATCCAAATCATTGGAATGTAACC	5' homologous region reverse primer
<i>DdvGAT-F3-PstI</i>	AACTGCAG AAGGATAACCATGTTTCATCCAC	3' homologous region forward primer
<i>DdvGAT-R3-BamHI</i>	CGGGATCC CAAGATAGTTGCCATAATACC	3' homologous region reverse primer
<i>grlB5-F-KpnI</i>	GGGGTACC AAGTGGTGACTTTTCAGATC	5' homologous region forward primer
<i>grlB5-R-SalI</i>	GCGTCGACT CCCGAGGTCAATGTACATTG	5' homologous region reverse primer
<i>grlB3-F-PstI</i>	AACTGCAG GAAGGAATCTGTAGAGCAAG	3' homologous region forward primer
<i>grlB3-R-BamHI</i>	CGGGATCC CATCTTCACTACTACTAG	3' homologous region reverse primer
<i>grlE5-F-KpnI</i>	GGGGTACC CAGAAGTTGTTAAACCAAACCC	5' homologous region forward primer
<i>grlE5-R-HindIII</i>	CCC AAGCTT GATTACGAAGTTCAGTTCTAAC	5' homologous region reverse primer
<i>grlE3-F-BamHI</i>	CGGGATCC TACAGGTGATAGATTGTATGG	3' homologous region forward primer
<i>grlE3-R-NotI</i>	ATTTGCGGCCGCAAAGATTGGTTCAGCCAATGG	3' homologous region reverse primer
<i>gadA-F-BglII</i>	GAAGATCT TAAAAAATGTCACCTTCATCATGTCAAAAAC	Forward primer for amplifying <i>gadA</i> cDNA
<i>gadA-R1-SpeI</i>	GGACTAGT TTAATGATGGAATGATTGACCTTC	Reverse primer for amplifying <i>gadA</i> cDNA
<i>gadA-R2-SpeI</i>	GGACTAGT ATGATGGAATGATTGACCTTC	Reverse primer without stop codon
<i>gadB-F-BamHI</i>	CGGGATCC TAAAAAATGCCATTACATATTGTTGATAAAC	Forward primer for amplifying <i>gadB</i> genomic DNA
<i>gadB-R1-SpeI</i>	GGACTAGT TTAATGATGGAATTTTCACCTTCATC	Reverse primer for amplifying <i>gadB</i> genomic DNA
<i>gadB-R2-SpeI</i>	GGACTAGT ATGATGGAATTTTCACCTTCATC	Reverse primer without stop codon
<i>gabT-F-BamHI</i>	CGGGATCC AAACAATGCTTTCATCAAGATTAATTAATGTTTAAAGTTC	Forward primer for amplifying <i>gabT</i> cDNA
<i>gabT-R-SpeI</i>	GGACTAGT ATTTTATATAATTCTTCATTGTTTGATCGAAACG	Reverse primer for amplifying <i>gabT</i> cDNA
<i>DdvGAT-F-BglII</i>	GAAGATCT ATGGCTTATAACTCAAGAAATAG	Forward primer for amplifying <i>DdvGAT</i> cDNA
<i>DdvGAT-R-SpeI</i>	GGACTAGT TTAATTTGATGGATCTACAAAAGC	Reverse primer for amplifying <i>DdvGAT</i> cDNA
<i>grlB-F-BamHI</i>	CGGGATCC AATAAAAATGAAAAATTAATTTCAATTATTC	Forward primer for amplifying <i>grlB</i> cDNA
<i>grlB-R1-NheI</i>	CCGGCTAGC TTAAAGGTTATTAGAATCAATTTTC	Reverse primer for amplifying <i>grlB</i> cDNA
<i>grlB-R2-NheI</i>	CCGGCTAGC AAGGTTATTAGAATCAATTTCAAC	Reverse primer without stop codon
<i>gadA-RT-F</i>	GACCTTCAGATAGAATGAG	Forward qPCR primer for <i>gadA</i>
<i>gadA-RT-R</i>	TGGAATGATTGACCTTCATC	Reverse qPCR primer for <i>gadA</i>
<i>gadB-RT-F</i>	GTAAGAATTTACCCTCTGAAC	Forward qPCR primer for <i>gadB</i>
<i>gadB-RT-R</i>	AATCTCTAGAGAAACCATGAC	Reverse qPCR primer for <i>gadB</i>
<i>rnlA-RT-F⁽²⁾</i>	TTACATTTATTAGACCCGAAACCAAGCG	Forward qPCR primer for <i>rnlA</i>
<i>rnlA-RT-R⁽²⁾</i>	TTCCCTTTAGACCTATGGACCTTAGCG	Reverse qPCR primer for <i>rnlA</i>

Table S1. Primers used in this research. Nucleotides labeled in red indicate restriction sites.

1. Anjard, C., Su, Y., and Loomis, W. F. (2009) *Development* **136**, 803-812
2. Nagasaki, A., Itoh, G., Yumura, S., and Uyeda, T. Q. (2002) *Mol Biol Cell* **13**, 4333-4342