

Table 1. Primers used for qPCR and mapping in this study

Primer	Sequences (5'-3')
D53RTF:	GAGGAGGATAGGAAACCTGTGCC
D53RTR:	GTCTCCTTTCACTGCTGGTAC
D10RTF	CTGTACAAGTTCGAGTGGCACC
D10RTR	CCTCGTCCGTCTCCTCGTAC
ActinF	CTTCATAGGAATGGAAGCTGCGGGTA
ActinR	CGACCACCTTGATCTTCATGCTGCTA
Ds3F	GGGTCTAATCAGATCTATGGTT
Ds3R	TGTCTAGCTAACTGTGGTTGA
K81114F	GCTTCATCTTTGGCGACCACCGT
K81114R	TCCACCGGATTCACGAGATAA
RM3668F	AGGAGGGAATCGTTCACAAG
RM3668R	AGGAGGGAATCGTTCACAAG

Table 2. Primers used for generating constructs in this study

Construct	Primer	Sequence (5'-3')
<i>D53:d53</i>	d53GenF	CCGGATCCATCTAACGCTCT
	d53GenR	AAAAGCTTCAAGGGCTACTTACCTGCTCAA
<i>Act:D53-GFP</i>	ActD53GFPF	GGGCCCATGCCCACTCCGGTGGC
	ActD53GFPR	GCTAGCACAATCTAGAATTATTCTTGGCGGG
<i>Act:D14-GFP</i>	ActD14GFPF	AAGGGCCCATGCTGCGATCGACGCATCC
	ActD14GFPR	AATCTAGAGTACCGGGCGAGAGCGC
<i>Act:D3-GFP</i>	ActD3GFPF	AAGGGCCCATGGCGGAAGAGGAGGAGGTG
	ActD3GFPR	AATCTAGAATCATCAATTTGCCGGCTGTCA
GST-D3	GST-D3F	GAATTCATGGCGGAAGAGGAGGAG
	GST-D3R	GTCGACATCATCAATTTGCCGGCTGTCA
StrepD14HIS	StrepD14HISF	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAATGCTGCGATCGACGCAT
	StrepD14HISR	GGGGACCACTTTGTACAAGAAAGCTGGGTAGTACCGGGCGAGAGCGCG
<i>35S:D53-GFP</i>	35SD53GFPF	GGATCCATGCCCACTCCGGTGGC
	35SD53GFPR	AAGCTTACAATCTAGAATTATTCTTGGCGGG
D53antigen	D53antigenF	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGACTTCGCGGCCCGCTCCCCGTAT
	D53antigenR	GGGGACCACTTTGTACAAGAAAGCTGGGTATCCTGAAGCTACTGAGTGTA
<i>Act:D14(S147A)-GFP</i>	D14S147AF	CACGCCGTCTCCGCCATGA
	D14S147AR	TCATGGCGGAGACGGCGTG
<i>Act:D14(D268N)-GFP</i>	D14SD268NF	CCAGACCACCCGCAACGT
	D14SD268NR	ACGTTGCGGGTGGTCTGG
<i>Act:D14(H297Y)-GFP</i>	D14H297YF	CCAGACCGAGGGTTACCT
	D14H297YR	AGGTAACCCTCGGTCTGG
D53-RNAi	D53RNAi1F	AGGATCC AAGCATCGGAGACCTCAA
	D53RNAi1R	AAGGTACC CTGGAGGTCCCAATCCTT
	D53RNAi2F	AGAGCTCAAGCATCGGAGACCTCAA
	D53RNAi2R	AAACTAGT CTGGAGGTCCCAATCCTT
MBP-D53	MBPD53F	GGATCCATGCCCACTCCGGTGGC
	MBPD53R	AAGCTTACAATCTAGAATTATTCTTGGCGGG
HisSUMOD14	D14SUMOF	GGATCCTCGGGCGCAAGTCTGCTGCAAATC
	D14SUMOR	GCGGCCGCTTAGTAACGGGCCAGAGCACGAC
His-Trx-D53	His-Trx-D53F	GGATCCATGCCTACACCGGTTGCAGC
	His-Trx-D53R	GCGGCCGCTTAACAGTCCAGGATGATAC