



Figure S1. The multiple cloning site of pET23a (or pET23d) vector. Restriction enzyme sites present in the multiple cloning regions are indicated. Primers for the T7 promoter and T7 terminator region of pET23 are represented by *arrows*.

Table S1 *Escherichia coli* strains used for SLiCE preparation

<i>E. coli</i> strains	Genotype
DH10B	F^- <i>mcrA</i> $\Delta(mrr-hsdRMS-mcrBC)$ $\Phi80lacZ$ $\Delta M15$ $\Delta lacX74$ <i>deoR</i> <i>recA1</i> <i>endA1</i> <i>araD139</i> $\Delta(ara, leu)7697$ <i>galU</i> <i>galK</i> λ^- <i>rpsL</i> <i>nupG</i>
JM109	<i>endA1</i> <i>glnV44</i> <i>thi-1</i> <i>relA1</i> <i>gyrA96</i> <i>recA1</i> <i>mcrB</i> ⁺ $\Delta(lac-proAB)$ <i>e14</i> ⁻ [<i>F'</i> <i>traD36</i> <i>proAB</i> ⁺ <i>lacI</i> ^q <i>lacZ</i> $\Delta M15$] <i>hsdR17</i> (<i>rK</i> ⁻ <i>mK</i> ⁺)
DH5 α	F^- $\Phi80lacZ\Delta M15$ $\Delta(lacZYA-argF)U169$ <i>deoR</i> <i>recA1</i> <i>endA1</i> <i>hsdR17</i> (<i>rK</i> ⁻ , <i>mK</i> ⁺) <i>phoA</i> <i>supE44</i> λ^- <i>thi-1</i> <i>gyrA96</i> <i>relA1</i>
XL10-Gold	<i>Tet</i> ^r $\Delta(mcrA)183$ $\Delta(mcrCB-hsdSMR-mrr)173$ <i>endA1</i> <i>supE44</i> <i>thi-1</i> <i>recA1</i> <i>gyrA96</i> <i>relA1</i> <i>lac</i> Hte [<i>F'</i> <i>proAB</i> <i>lacI</i> ^q $\Delta M15$ Tn10(<i>Tet</i> ^r) <i>Amy</i> <i>Cam</i> ^r]
Mach1 TM T1 ^R	F^- $\Phi80lacZ\Delta M15$ $\Delta lacX74$ <i>hsdR</i> (<i>rK</i> ⁻ , <i>mK</i> ⁺) $\Delta recA1398$ <i>endA1</i> <i>tonA</i>
SURE2	<i>endA1</i> <i>supE44</i> <i>thi-1</i> <i>gyrA96</i> <i>relA1</i> <i>lac</i> <i>recB</i> <i>recJ</i> <i>sbcC</i> <i>umuC::Tn5</i> (<i>Kan</i> ^r) <i>uvrC</i> <i>e14</i> ⁻ $\Delta(mcrCB-hsdSMR-mrr)171$ [<i>F'</i> <i>proAB</i> ⁺ <i>lacI</i> ^q <i>lacZ</i> $\Delta M15$ Tn10(<i>Tet</i> ^r) <i>Amy</i> <i>Cam</i> ^r]

Table S2 Oligonucleotides for PCR amplification

Pimer	Sequence (5' to 3')
For PrxIIE(AT3G52960)	
PrxIIE_10F	aggagatatat <u>cat</u> ATGgcctccatttcgctcgga
PrxIIE_15F	taagaaggagatatat <u>cat</u> ATGgcctccatttcgctcgga
PrxIIE_19F	actttaagaaggagatatat <u>cat</u> ATGgcctccatttcgctcgga
PrxIIE_24F	gtttaactttaagaaggagatatat <u>cat</u> ATGgcctccatttcgctcgga
PrxIIE_29F	at ttgtttaactttaagaaggagatatat <u>cat</u> ATGgcctccatttcgctcgga
PrxIIE_34F	aaataat ttgtttaactttaagaaggagatatat <u>cat</u> ATGgcctccatttcgctcgga
PrxIIE_10R	gggtgggtggtg <u>ctc</u> gagTCAgagagctttaagcatatc
PrxIIE_15R	gtgggtgggtgggtg <u>ctc</u> gagTCAgagagctttaagcatatc
PrxIIE_19R	agtggtgggtgggtgggtg <u>ctc</u> gagTCAgagagctttaagcatatc
PrxIIE_24R	atctcagtggtgggtgggtgggtg <u>ctc</u> gagTCAgagagctttaagcatatc
PrxIIE_29R	gccggatctcagtggtgggtgggtgggtg <u>ctc</u> gagTCAgagagctttaagcatatc
PrxIIE_34R	tagcagccggatctcagtggtgggtgggtgggtg <u>ctc</u> gagTCAgagagctttaagcatatc
For G6PDH1 (AT5G35790)	
G6PDH_10F	aggagatatat <u>acc</u> ATGgccgagaaacattctcag
G6PDH_15F	taagaaggagatatat <u>acc</u> ATGgccgagaaacattctcag
G6PDH_19F	actttaagaaggagatatat <u>acc</u> ATGgccgagaaacattctcag
G6PDH_24F	gtttaactttaagaaggagatatat <u>acc</u> ATGgccgagaaacattctcag
G6PDH_29F	at ttgtttaactttaagaaggagatatat <u>acc</u> ATGgccgagaaacattctcag
G6PDH_34F	aaataat ttgtttaactttaagaaggagatatat <u>acc</u> ATGgccgagaaacattctcag
G6PDH_10R	gggtgggtggtg <u>ctc</u> gagTCAagcttctccaagatctcccca
G6PDH_15R	gtgggtgggtgggtg <u>ctc</u> gagTCAagcttctccaagatctcccca
G6PDH_19R	agtggtgggtgggtgggtg <u>ctc</u> gagTCAagcttctccaagatctcccca
G6PDH_24R	atctcagtggtgggtgggtgggtg <u>ctc</u> gagTCAagcttctccaagatctcccca
G6PDH_29R	gccggatctcagtggtgggtgggtgggtg <u>ctc</u> gagTCAagcttctccaagatctcccca
G6PDH_34R	tagcagccggatctcagtggtgggtgggtgggtg <u>ctc</u> gagTCAagcttctccaagatctcccca
For pET23a or 23d vector	
pET23_r	tatatctccttcttaaagtta
pET23_f	caccaccaccaccactga

Start and Stop codons were indicated by capital letters. Introduced restriction enzyme cleavage sites were underlined (*Nde*I, *Nco*I and *Xho*I).

Table S3 Oligonucleotides for site-directed mutagenesis

Primer	Sequence (5' to 3')
PrxIIE_C51S_F	gcgcattcacaccaacaAgctcacaaaaacacgtc
PrxIIE_C51S_R	gacgtgttttgtgagcTgttggtgtgaatgcgc
PrxIIE_C76S_F	catcgatgtaatcgcatCtatctccgtcaacgacg
PrxIIE_C76S_R	cgtcgttgacggagataGatgcgattacatcgatg
G6PDH_C97S_F	gattagtagtactttaactAgccggattgatcagaggg
G6PDH_C97S_R	ccctctgatcaatccggcTagttaaagtactactaatc
G6PDH_C105S_F	gattgatcagagggaaaaatCtggggataagatggagcag
G6PDH_C105S_R	ctgctccatcttatccccaGattttccctctgatcaatc
T7P (T7 promoter for pET vectors)	cgcgaaattaatacgactcactat
T7T (T7 terminator for pET vectors)	gctagttattgctcagcggtggca

Mutated nucleotides were indicated by capital letters.