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Functional Plant Biology

Supplementary Material

StWRKY13 promotes anthocyanin biosynthesis in potato (*Solanum tuberosum*) tubers

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atggagggtcaatgaaaccgcgaaaatagctatagtttagaccagtagcttcaaggccaaga
M E V N E T A K I A I V R P V A S R P R
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S L I N T S N V D R P S Y **D G Y N W R K**
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L K C P V K K K V E R S Y D A Q I A E I
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V Y R G E H N H P K P Q P P K R N L S D
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V H V R A A V C N D T S K E T N N P A W
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F G L T I H S A H S S K A P C F Y D P I
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R L E T T C D E P K T K R R K L K G Q C
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N R A G T S G E S T F P Y I P N Q S T T
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D S E I T **D D G F R W R K Y G Q K V V K**
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F V E R T M D D P K A F I T T Y E G K H
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N H V V P N R R P N S E A S K T S S K S
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S A M K E K S *

WRKY

Fig. S1. Nucleotide and amino acid sequences of *StWRKY13*. The putative WRKY domains are colored.

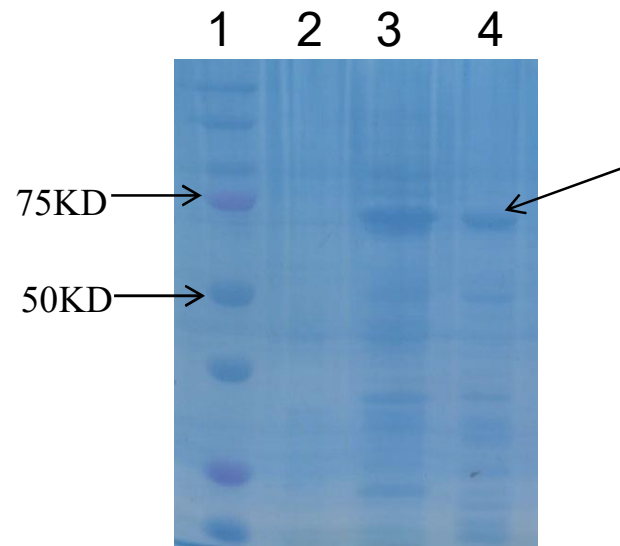


Fig. S2. SDS-PAGE of the TrxA-6xHIS-StWRKY13 protein expressed in *E. coli* cells. Lane 1, molecular marker; lane 2, before treatment with IPTG; lane 3, after treatment with IPTG; lane 4, purified TrxA-6xHIS-StWRKY13 protein (arrowhead).

Table S1 the information of the core elements in *StWRKY13* promoter sequences

motif	sequence	number	function
ABRE	CACGTG/ACGTG	2	abscisic acid responsiveness
ARE	AAACCA	3	anaerobic induction
ATC-motif	AGTAATCT	1	light responsiveness
Box 4	ATTAAT	2	light responsiveness
G-Box	CACGTG	1	light responsiveness
GARE-motif	TCTGTTG	1	Gibberellin-responsive element
GATA-motif	GATAGGG	1	light responsiveness
GATT-motif	CTCCTGATTGGA	1	light responsiveness
GT1-motif	GGTAA	2	light responsiveness
I-box	GTATAAGGCC	1	light responsiveness
MBS	CAACTG	1	Drought-inducibility
MBSI	TTTTTACGGTTA	1	MYB binding site involved in flavonoid biosynthetic regulation
MRE	AACCTAA	1	MYB binding site involved in light responsiveness
P-box	CCTTTTG	1	Gibberellin-responsive element
TCA-element	CCATCTTTT	1	Salicylic acid responsiveness
TCT-motif	TCTTAC	2	light responsiveness