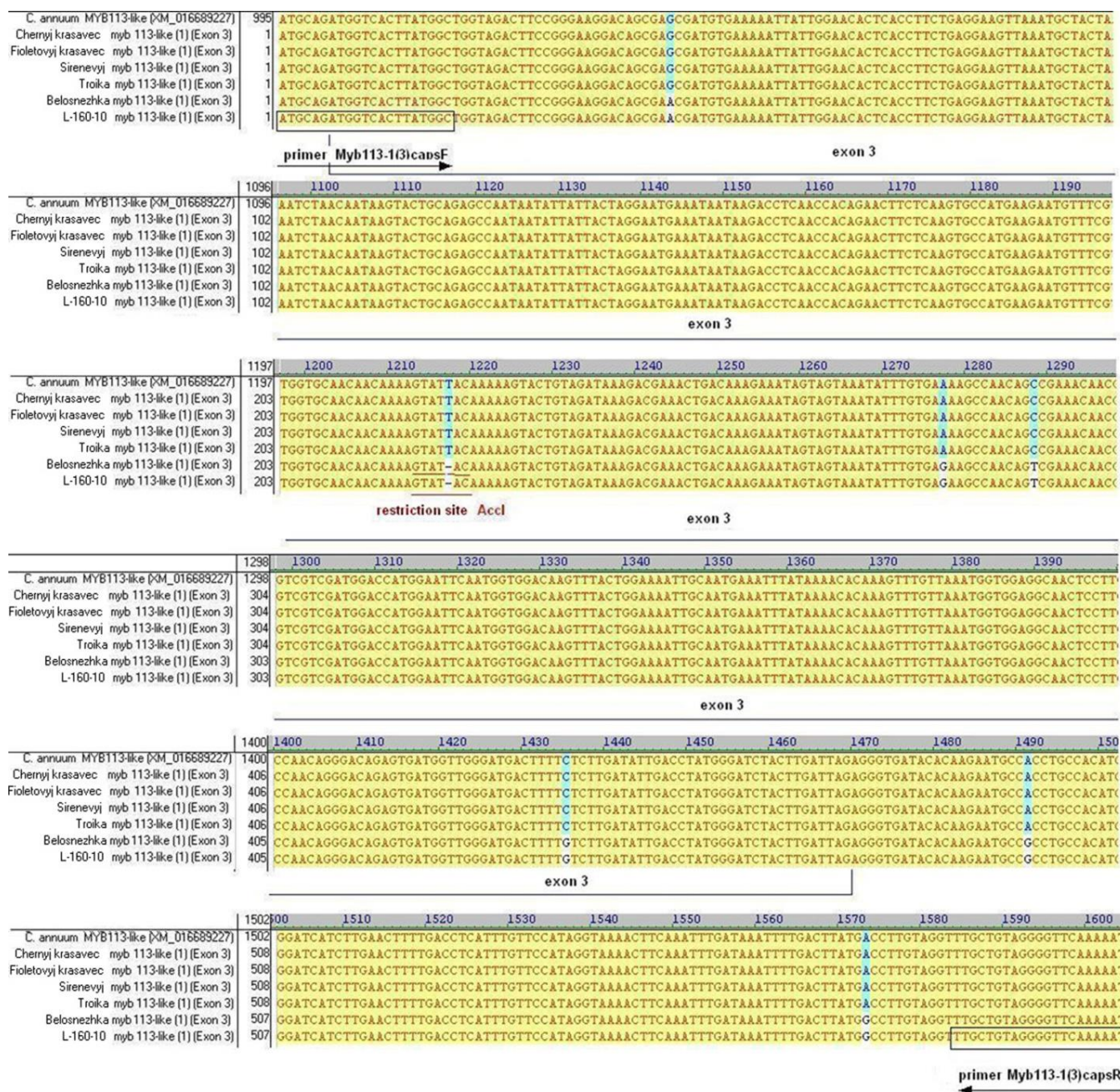


# Supplementary Materials: Identification of DNA Markers of Anthocyanin Biosynthesis Disorders Based on the Polymorphism of Anthocyanin 1 Tomato Ortholog Genes in Pepper and Eggplant

**Supplementary Table S1.** Blast analysis results in the search for *ANT1* (EF433416) tomato sequence orthologs in pepper and eggplant.

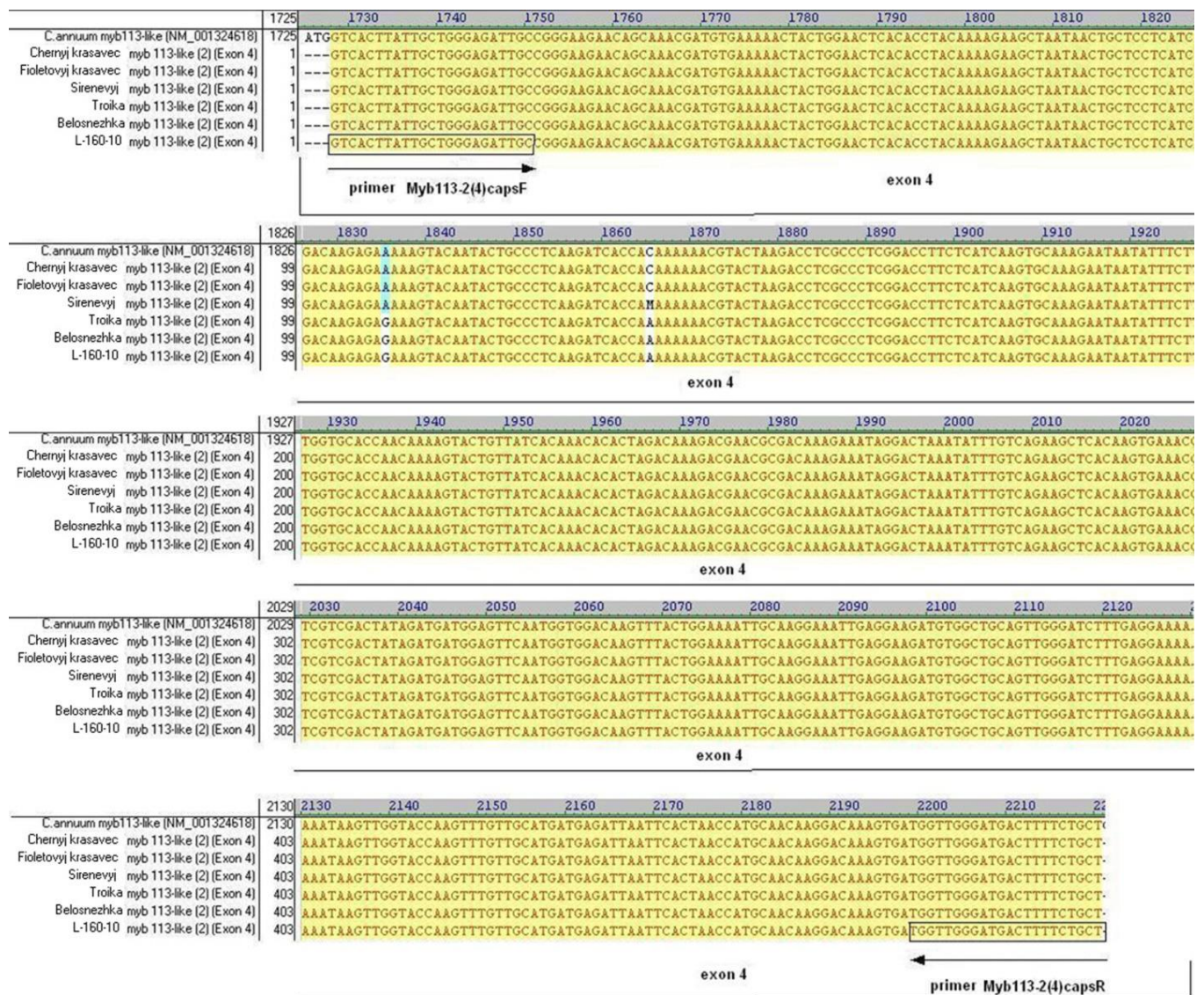
Nucleotide sequence (access number)	Query cover	Percent identity
<i>Capsicum annuum</i> Myb113-like transcription factor (mRNA) (XM_016689227)	65%	82,44%
<i>Capsicum annuum</i> Myb113-like transcription factor (mRNA) (NM_001324618)	56%	85,63%
<i>Solanum melongena</i> Myb1 (mRNA) (KF727476)* <sup>1</sup>	92%	82,14%
<i>Solanum melongena</i> Myb1 (mRNA) (KT259043)* <sup>2</sup>	91%	81,96%
<i>Solanum melongena</i> Myb1 (DNA) (KT727965)	91%	79,72%

\* 5 SNPs polymorphisms identified between m-RNA sequences 1 and 2.



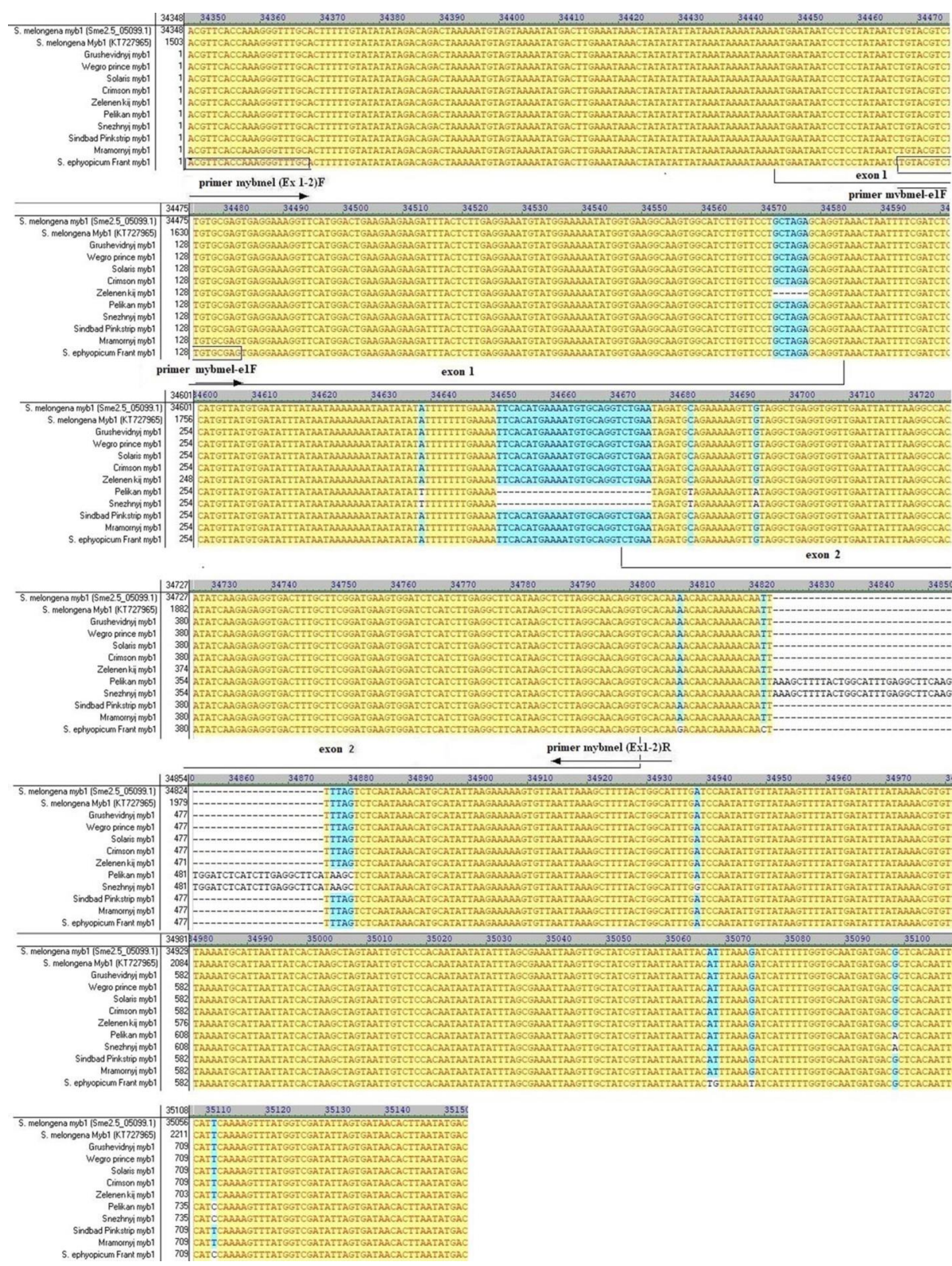
**Supplementary Figure S1.** Nucleotide sequence polymorphism of the 3<sup>rd</sup> exon of the *Myb113-like 1* pepper gene in varieties with a contrasting anthocyanin coloration of fruits at the stage of technical ripeness. *Myb113-like C.annuum* DNA sequence (XM\_016689227) with 4 SNPs and a single base deletion in the 3<sup>rd</sup> exon was deposited with the GeneBank; ID number: MN607239 (MYB113-like (1)- delT allele, partial sequence).





**Supplementary Figure S2.** Nucleotide sequence polymorphism of the 4<sup>th</sup> exon of the *Myb113-like 2* pepper gene in varieties with a contrasting anthocyanin coloration of fruits at the stage of technical ripeness. *Myb113-like C. annuum* DNA sequence (NM\_001324618) with 2 SNPs in the 4<sup>th</sup> exon was deposited with the GeneBank; ID number: MN607240 (MYB113-like (2)-(C/A), partial sequence).





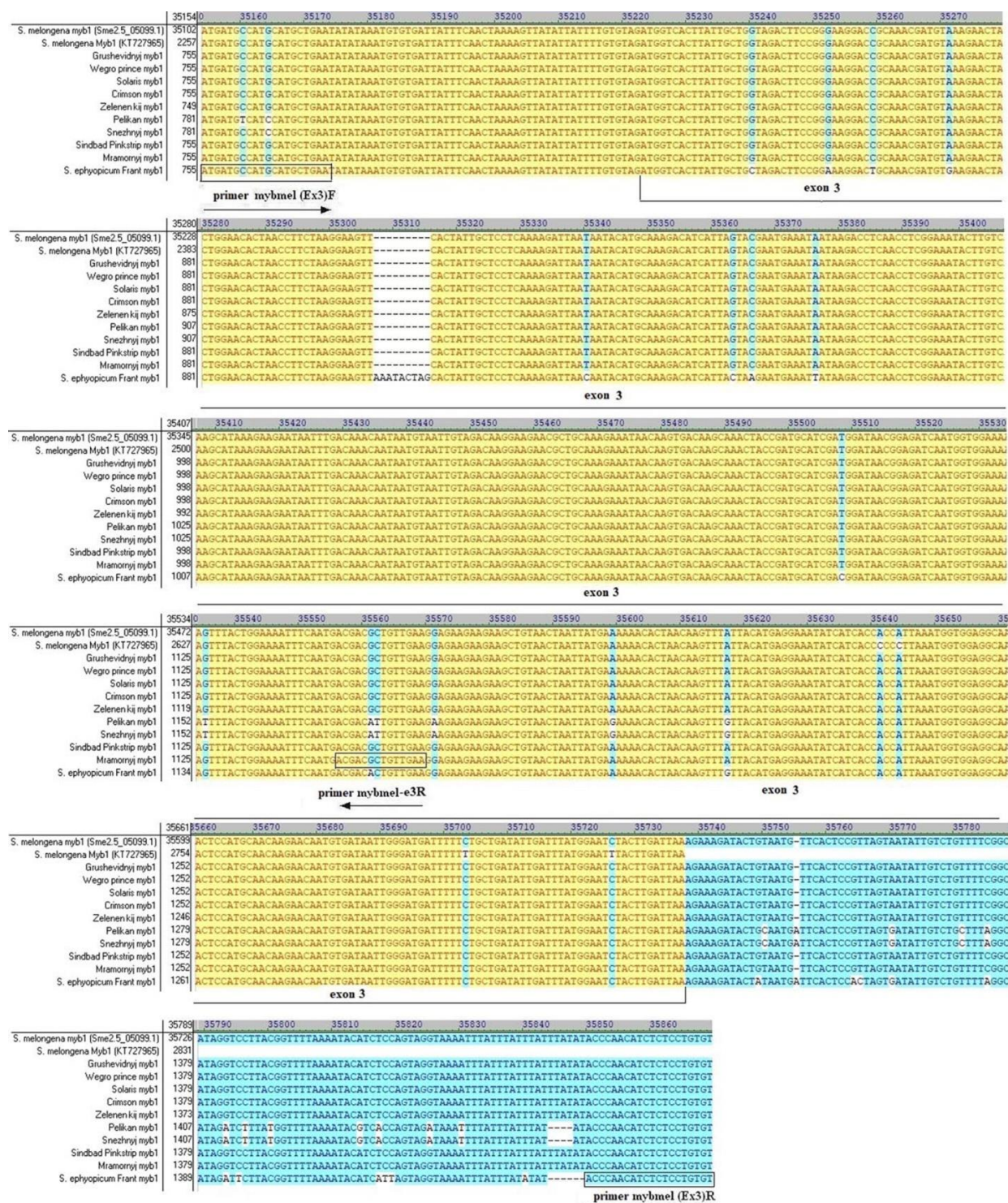
# A

**Supplementary Figure S3.** (A) Nucleotide sequence polymorphism of the exon 1-2 of the *Myb1* gene in *S. melongena* and *S.aethiopicum* varieties with a contrasting anthocyanin coloration of fruits at the stage of technical ripeness. (B) Nucleotide sequence polymorphism of the 3<sup>rd</sup> exon of the *Myb1* gene in *S. melongena* and *S.aethiopicum* varieties with a contrasting anthocyanin coloration of fruits at the stage of technical ripeness.



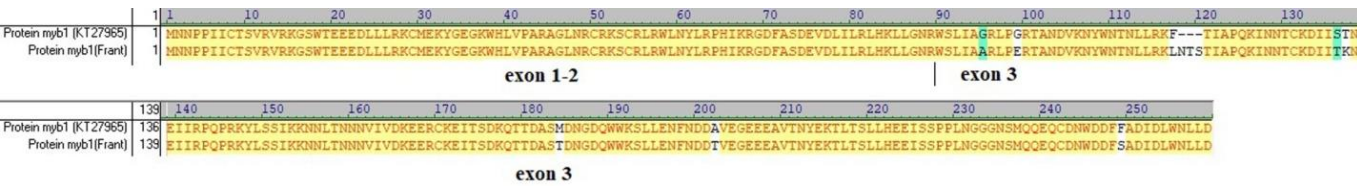
*Myb1* *S. melongena* DNA sequence (KT727965) with a 6 bp deletion at the end of exon 1 was deposited with the GeneBank; ID number: MN607238 (Myb1-del 6 allele, complete sequence)

*Myb1* *S. melongena* DNA sequence (KT727965) with a 26 bp deletion between intron 1 – exon 2, 11 SNPs in coding regions and a 52 bp insertion at the beginning of intron 2 was deposited with the GeneBank; ID number: MN607237 (Myb1-del 26 allele, complete sequence).



B

Supplementary Figure 3S. Cont.



**Supplementary Figure S4.** Alignment of the amino acid sequences of the full-size transcription factor *Myb1* (KT727965) with the corresponding sequence of *S. aethiopicum* in variety Frant.