

**ANTHOCYANIN CONTENT AND POLYMORPHISM OF MYB114 GENE IN LEAFY
VEGETABLE CROPS OF *BRASSICA RAPA* L.**

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Leafy vegetable *Brassica rapa* L. crops are widely cultivated, particularly in Asian countries. The accumulation of anthocyanins enhances the quality and flavor of *Brassica* vegetables while also providing health benefits. The breeding of varieties with high anthocyanin content is of significant scientific and economic interest, necessitating the study of genes and mechanisms involved in their accumulation. In this study, the anthocyanin content was assessed in 25 *B. rapa* accessions from the VIR collection. Molecular genetic analysis using the DNA marker BrMYB114.3 identified two polymorphic fragments: a 523 bp fragment in samples with purple-colored leaves and a 482 bp fragment in those with green-colored leaves. Some accessions were found to be heterozygous for this marker and exhibited lower anthocyanin accumulation. Sequencing of the fragments amplified using BrMYB114.3 and BrMYB114.4, along with a comparative analysis of *Myb114* gene sequences in *B. rapa* L., revealed multiple polymorphisms associated with anthocyanin accumulation. A 41-bp deletion was identified in the second intron, while seven single-nucleotide polymorphisms (SNPs) were detected in the third exon. These SNPs led to amino acid substitutions, which may reduce the expression level of the transcription factor in certain plant forms. Thus, the molecular markers MYB114.3 and MYB114.4 can be utilized for the identification of *B. rapa* leafy forms with varying anthocyanin accumulation levels.

Key words: *Brassica rapa*, anthocyanins, sequencing, DNA markers.