

Compatible GLRaV-3 viral infections affect berry ripening decreasing sugar accumulation and anthocyanin biosynthesis in *Vitis vinifera*

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Virus infections in grapevine cause important economic losses and affect fruit quality worldwide. Although the phenotypic symptoms associated to viral infections have been described, the molecular plant response triggered by virus infection is still poorly understood in *Vitis vinifera*. As a first step to understand the fruit changes and mechanisms involved in the compatible grapevine-virus interaction, we analyzed the berry transcriptome in two stages of development in the red wine cultivar Cabernet Sauvignon infected with Grapevine leaf-roll-associated virus-3 (GLRaV-3). Analysis of global gene expression patterns indicate incomplete berry maturation in infected berries as compared to uninfected fruit suggesting viral infection interrupts the normal berry maturation process. Genes with altered expression in berries harvested from GLRaV-3-infected vines as compared to uninfected tissue include anthocyanin biosynthesis and sugar metabolism genes. The reduction in transcript accumulation