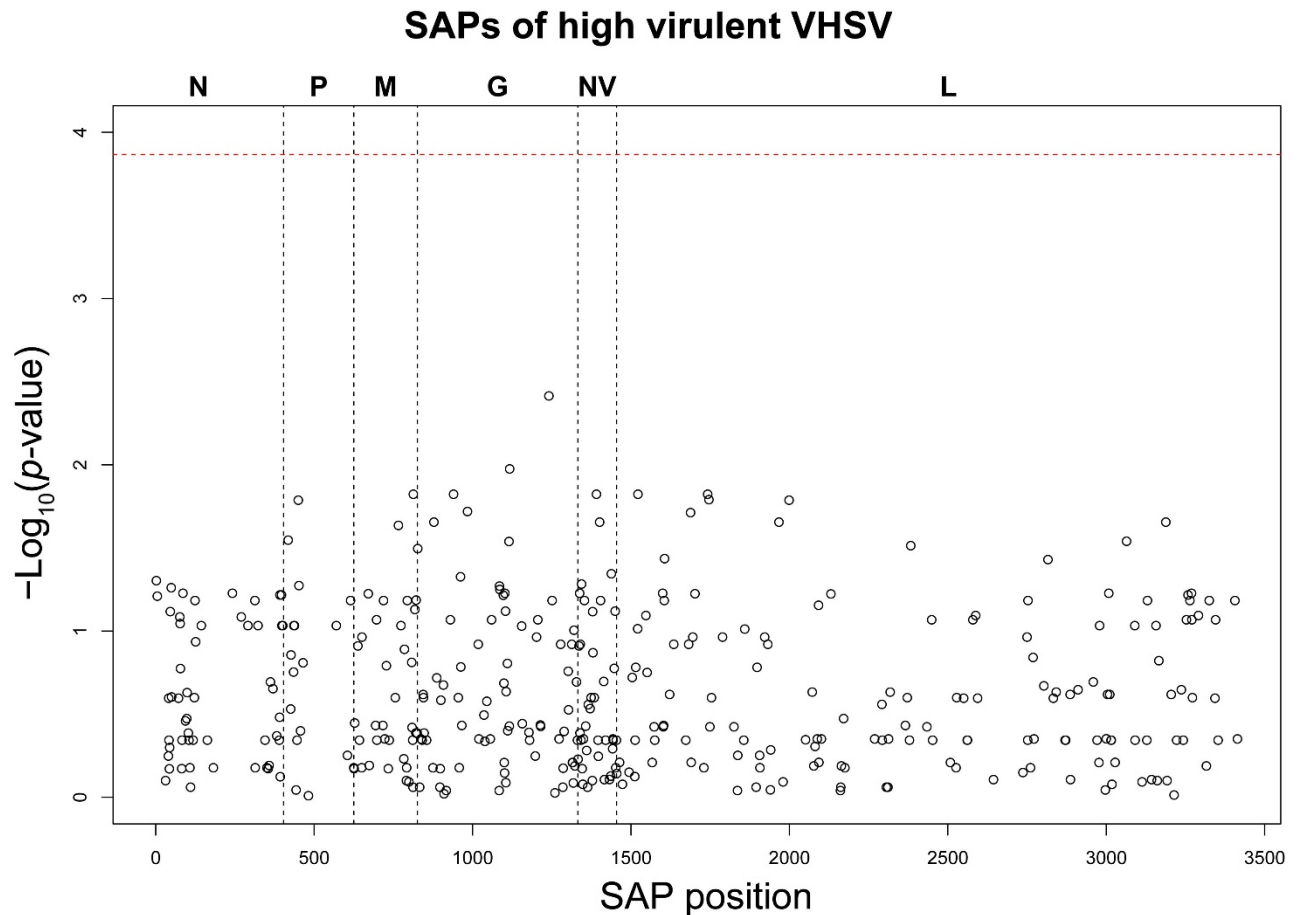


*Supplementary Material*

**Supplementary Figure 1. Manhattan plot of the association analysis conducted on high virulent isolates SAPs and the trait “virulence”.** The SAP position along the genome coding regions is displayed on the  $x$ -axis, while the  $y$ -axis reports the negative logarithm of the association  $p$ -value. The red dashed line identifies the association test significance limit. As shown, no SAP was significant associated with virulence in this dataset.