



Additional file 3: Changes in (A) Seed weight-to-berry weight ratio (SB), (B) Sugar levels, (C) Seed weight, and (D) pericarp weight between low- and high-SB berries of the cluster from two week-*prévéraison* (PV) to 100% *véraison* (V). Data represent means of all the berries with low- and high-SB ranges (see Methods), respectively. Number of berries is approximately a minimum of 150 for each of low and high-SB group at each cluster stage. In panel D, the ripening phenotype of the berries of low and high-SB groups were indicated as dark green (green hard immature phase), light green (green soft phase with sugar increase), red (pink phase), and purple (red phase). Error bars represent \pm SEM. Significant differences between low- and high-SB at each cluster stage are indicated by asterisks (t-Test, $p < 0.05$). Significant differences for each SB group between the ripening stages are denoted by different letters (lower and upper case letters are used for low- and high-SB berries, respectively (Tukey's HSD, $p < 0.05$)).