

Title: Alternative splicing regulation appears to play a crucial role in grape berry development and is also potentially involved in adaptation responses to the environment

Journal: BMC Plant Biology

Authors: Pascale Maillot, Amandine Velt, Camille Rustenholz, Gisèle Butterlin, Didier Merdinoglu, Eric Duchêne

Corresponding author: Pascale Maillot, SVQV, INRAE - University of Strasbourg, 68000 Colmar, France, France, pascale.maillot@inrae.fr

ILD ¹ – Gw vs Ri at the different stages ²						
Gene ID	AS (region)	specificity	S1 (FDR)	S2 (FDR)	S3 (FDR)	S4 (FDR)
<i>Ri-specific or -preferential events</i>						
Vitvi01g00819	IR (CDS)	ILs-Gw = 1	0.55 (0)	0.66 (0)	0.53 (0)	not different ³
Vitvi13g01915	A5SS (CDS)	ILs-Gw = 1	0.36 (0)	0.37 (0)	0.35 (0)	not different ³
Vitvi14g02541	ES (CDS)	ILs-Gw = 1	0.52 (0)	0.43 (1.8 E-13)	0.40 (0)	not different ³
Vitvi15g00621	IR (3' UTR)	ILs-Gw ≤ 0.02	-0.99 (0)	-0.97 (0)	-0.98 (0)	-0.81 (0) ³
Vitvi17g00770	A3SS (CDS)	ILs-Gw ≤ 0.02	-0.54 (0)	-0.60 (0)	-0.55 (0)	not different ³
<i>Other events</i>						
Vitvi01g02098	A3SS (3' UTR)	—	-0.13 (3.5 E-05)	-0.13 (2.1 E-05)	-0.15 (7.0 E-09)	not different ³
Vitvi02g00597	A5SS (CDS)	—	0.11 (ns)	0.11 (ns)	0.16 (1.6 E-04)	-0.17 (3.1 E-06) ³
Vitvi06g01662	A3SS (5' UTR)	—	0.59 (0)	0.54 (0)	0.62 (0)	not different ³
Vitvi13g02138	ES (5' UTR)	—	-0.33 (1.6 E-03)	-0.30 (2.6 E-03)	-0.23 (3.5 E-03)	not different ⁴
Vitvi14g00256	ES (CDS)	—	-0.59 (0)	-0.60 (0)	-0.55 (0)	not different ³
Vitvi15g01145	A5SS (5' UTR)	—	weak expression	-0.23 (9.0 E-08)	-0.17 (3.6 E-05)	not different ⁴
Vitvi15g01145	A3SS (5' UTR)	—	weak expression	-0.19 (4.2 E-04)	-0.15 (1.3 E-03)	not different ⁴
Vitvi15g01145	IR (5' UTR)	—	weak expression	-0.14 (1.4 E-05)	-0.09 (1.8 E-02)	not different ⁴
Vitvi15g01173	ES (CDS)	—	-0.24 (1.1 E-05)	-0.22 (1.1 E-03)	-0.19 (5.4 E-05)	not different ⁴
Vitvi17g00038	A3SS (5' UTR)	—	-0.24 (0)	-0.28 (0)	-0.26 (0)	not different ³

¹ ILD values are means of three biological replicates, significant at FDR ≤ 0.05

² S1: green berry at 6 weeks post-flowering, S2: hard berry at mid-véraison, S3: soft berry at mid-véraison, S4: mid-ripening

³ AS event regulated between S3 and S4 in Ri

⁴ AS event regulated between S3 and S4 in Gw

Additional file 4. Differential isoform ratios between Gw and Ri, for fifteen AS events regulated between véraison and mid-ripening in only one variety