

Supplementary Material

Table S1. Color measurements of tomato fruit ripening on the vine or harvested at the mature green (MG) and kept under different storage temperatures

Color development was monitored using the CIE L*a*b (lightness/green-to-red scale/blue-to-yellow scale). Different letters within each parameter indicate statistically significant differences.

	L	a*	b*
MG	71.15 ± 2.23 ^c	-12.94 ± 2.12 ^a	25.28 ± 4.53 ^a
RR	44.75 ± 2.50 ^a	34.06 ± 4.10 ^c	32.23 ± 5.08 ^a
7D4	69.61 ± 1.99 ^c	-13.18 ± 1.44 ^a	27.74 ± 1.89 ^a
7D15	71.22 ± 5.93 ^c	-4.18 ± 9.43 ^a	26.08 ± 12.14 ^a
7D20	72.45 ± 6.06 ^c	-1.13 ± 11.11 ^a	34.87 ± 7.70 ^{ab}
7D4+2	72.44 ± 1.96 ^c	-12.01 ± 0.66 ^a	23.10 ± 1.19 ^a
7D15+2	68.94 ± 5.60 ^{bc}	4.09 ± 7.95 ^a	42.17 ± 4.97 ^{bc}
9D20	62.57 ± 4.93 ^b	15.18 ± 4.83 ^b	50.73 ± 3.35 ^c

Table S2. Relative weight loss of fruits after different storage conditions

The difference of fresh weight (FW) of each fruit after storage and harvest (MG) was expressed in relation to the FW at MG (FW_{MG}). Values with different letters indicate statistically significant differences.

	Relative weight loss
7D4	0.053 ± 0.008^a
7D15	0.116 ± 0.013^b
7D20	0.104 ± 0.012^b
7D4+2	0.108 ± 0.010^b
7D15+2	0.107 ± 0.011^b
9D20	0.107 ± 0.010^b

On the vine

MG



RR



7D4



7D15



7D20



7D4+2



7D15+2



9D20



7D4+9



Fig. S1. Photographs of fruits harvested at mature green stage subjected to different storage conditions. For comparison fruits ripening on the vine are also shown.

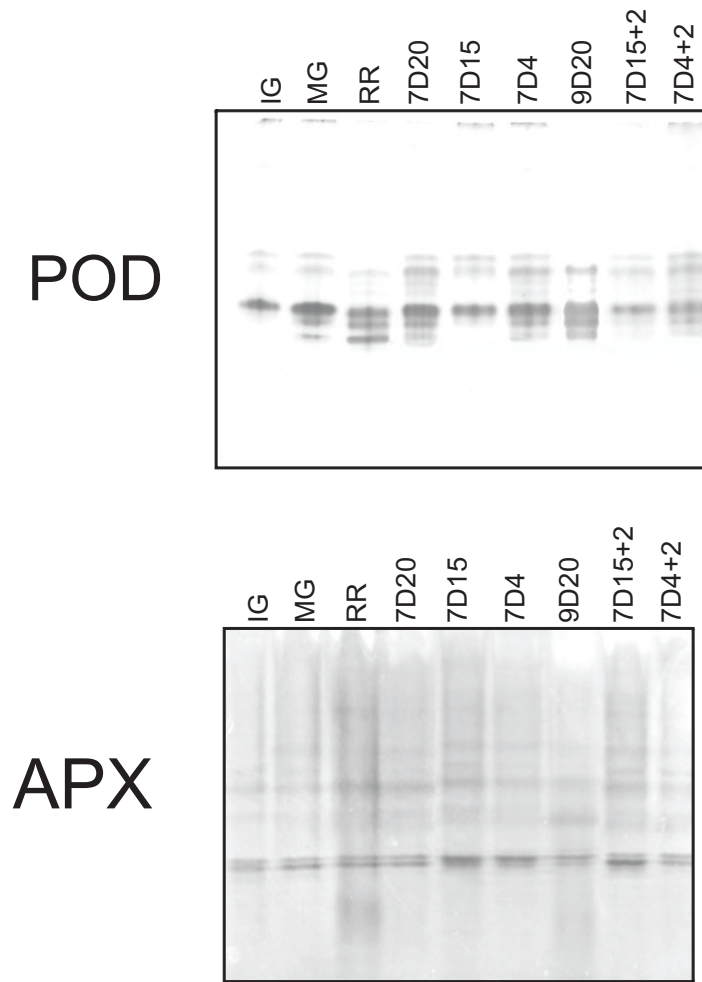


Fig. S2. In-gel activity of peroxidase (POD) and ascorbate peroxidase (APX) from tomato fruits samples. Five μg of protein were loaded in each lane. Representative images of at least 3 gels conducted with different extracts prepared using 5 fruits are shown.

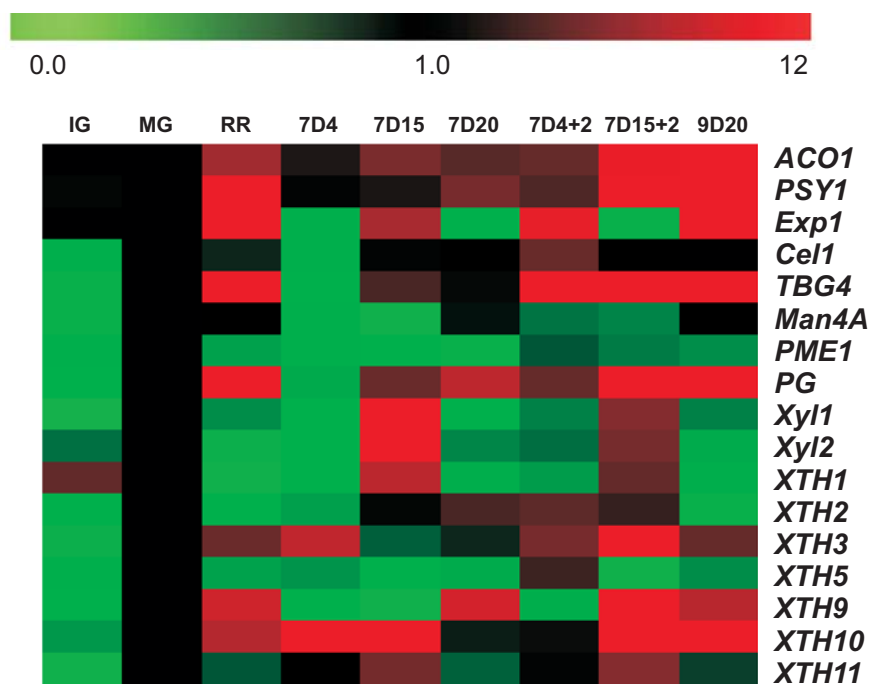


Fig. S3. Overlay heat map of the transcript profiles of the different stages during tomato ripening on the vine (IG, MG and RR) in comparison with those harvested and kept at different storage temperatures of 7, 15 or 20°C during 7 days (7D4, 7D15 and 7D20, respectively) and then incubated at 20°C for 2 days (7D4+2; 7D15+2 and 9D20, respectively). Each square represents the transcript relative expression to the level at MG using a false-color scale. Regions of red or green indicate that the transcript content is increased or decreased, respectively, as depicted in the reference color bar. For each condition, qRT-PCR was used to quantify 15 transcripts involved in cell wall metabolism, ethylene production (*ACO1*) and lycopene synthesis (*PSY1*). Heat map was created using Multiexperiment Viewer version 4.1. (MeV).