

Table S1. Relationships between the Multiplex® 3 ratios and the different quality parameters of Sugranineteen table grapes performed in this study. The ratios are described according to the manufacturer (Force A, Orsay, France).

Ratio	Description	Formula	Correlation to <sup>1</sup>	Relationship with <sup>2</sup>	n *	R-sq	Significance
ANTH_RG	Log of FER_RG	log (FRF_R/FRF_G)	Anthocyanins	Anthocyanins	16	0.9613	$p \leq 0.001$ , ***
				CIRG	7	0.8713	$p = 0.02$ , *
FERARI	Log of FRF_R	Log (5000/FRF_R)	Anthocyanins	Anthocyanins	16	0.8743	$p \leq 0.001$ , ***
FLAV	Flavonols	log (FRF_R/FRF_UV)	Flavonols	Flavonoids	15	nd	ns
SFR_R	Simple Fluorescence Ratio	FRF_R / RF_R	Chlorophyll	TSS	9	0.7954	$p = 0.001$ , ***
				TA	9	0.6186	$p = 0.012$ , **
				CIRG	10	0.7835	$p = 0.005$ , **
NBI_R	Nitrogen Balance Index	FRF_UV / RF_R	Epidermal phenolics and chlorophyll	Anthocyanins	16	0.8032	$p \leq 0.001$ , ***
				Flavonoids	9	0.4773	$p = 0.039$ , *

<sup>1</sup>: According to the user guide of Multiplex® 3 and previous studies [17–55], the mentioned ratios are correlated to the corresponding above-mentioned parameters. <sup>2</sup>: Regression equations investigated in this study. n, sample size; R-sq, coefficient of determination ( $R^2$ ); nd, not detected; ns, not significant; TSS, total soluble solids, TA, titratable acidity; CIRG, color index of red grapes. \* Each n represents the mean value of triplicates of laboratory analysis and the relative 196 in-vineyard collected fluorescent measurements.