Table 1

	Green Hard	Green Soft	Pink Soft	Ripe
pH	3.0±0.03	3.2±0.04	3.33±0.03	3.60±0.04
TSS	6.0±0.20	8.0 ±0.2	12±0.37	17 ±0.3
Total acidity	22.6±0.5	11.6±0.34	6.6±0.26	4.8±0.14
Berry weight	1.3±0.14	3.0±0.09	3.2 ±0.12	3.5±0.18
Anthocyanin content	0.0169± 0.099	0.0418±0.0031	0.273±.0324	1.432 ±0.0753
Force Mean kg-1	5.854±0.39	1.876±0.16	0.694±0.06	0.32±0.032

Total soluble solids content (SSC, ºBrix), total acidity (g tartaric·L^{-1}), pH, anthocyanin (mg/gm of berries) and texture measurement throughout ripening in Muscadine cv. Noble during 2011 season.

Table 2. Protein yield in Muscadine berries. Protein estimated by Bradford method and expressed mg/g of berries

	Phenol Method				**TCA method**			
Biological Replicate	Green Hard	Green Soft	Pink Soft	Ripe	Green Hard	Green Soft	Pink Soft	Ripe
1	0.68	0.73	0.78	0.77	0.114	0.193	0.232	0.293
2	0.54	0.79	0.64	0.83	0.13	0.158	0.289	0.233
3	0.57	0.68	0.69	0.79	0.125	0.172	0.294	0.255
4	0.63	0.74	0.71	0.82	0.127	0.183	0.224	0.272

Summary of Proteins Detected using the Paragon Algorithm

Table 3: iTRAQ 8 plex Replication 1

Unused (Conf) Cutoff	Proteins Detected	Proteins Before Grouping	Distinct Peptides	Spectra Identified	% Total Spectra
>2.0 (99)	340	915	2599	4567	30
>1.3 (95)	522	1463	3114	5242	34.5
>0.47 (66)	570	1570	3245	5400	35.5
Cutoff Applied: >1.3 (95%)	522	1463	3114	5242	34.5

Table 4: iTRAQ 8 plex Replication 2

Unused (Conf) Cutoff	Proteins Detected	Proteins Before Grouping	Distinct Peptides	Spectra Identified	% Total Spectra
>2.0 (99)	266	734	1958	3338	33.5
>1.3 (95)	352	1084	2194	3618	36.3
>0.47 (66)	387	1210	2303	3747	37.6
Cutoff Applied: >1.3 (95%)	352	1084	2194	3618	36.3

Supplementary Table 9 -List of primers used for real-time qRT-PCR. Primers were generated for quantitative real-time RT-PCR for comparison with iTRAQ quantitative data. Name of Uniprot Identifier, Name of proteins, Gene name and Primer sequences are shown.			
Uniprot ID	**Name**	**Gene Name**	**Sequence 5`-3`**
A5C6H7	Sucrose synthase Forward Primer	VITISV_035889	GGGAGAAGTCCGAGCATCAG
	Sucrose Synthase Reverse Primer		GATGCGGTTGCAAAATCCCA
F6HG44	Glyceraldehyde 3 phosphate dehydrogenase Forward Primer	VIT_01s0010g02460	GCTATCATGGGCTCTGACAAGA
	Glyceraldehyde 3 phosphate dehydrogenase Reverse Primer		TTACAGCCACCAGTTCCACA
F6GX19	Isopentenyl Diphosphate Isomerase Forward Primer	VIT_04s0023g00600	CGCTCGCCCTCAAATTTCTC
	Isopentenyl Diphosphate Isomerase Reverse Primer		GACAGAGATGCCCTCCGAAA
Q9FS43	PR10 Forward Primer	VITISV_017150	CCACCCTAGTTCTCACATCT
	PR10 Reverse Primer		CTCCTGCTCGTAAGTGAAAA
G9JVT0	PR-4 Forward Primer	AF061329.1	ACCCATGACTTGGCTGTTTCT
	PR-4 Reverse Primer		ATGCTACCAGCGGTCAAGAT
A5AQ89	Profilin Forward Primer	VITISV_041272	GCCACCAGGTTGGAGAAAGA
	Profilin Reverse Primer		GGATGGAGGATGAGGAAGCG
F6HI56	Vicilin-like antimicrobial peptides 2-1-like Forward Primer	VIT_07s0151g00640	CACAGGTGAACAAAGGCGTG
	Vicilin-like antimicrobial peptides 2-1-like Reverse Primer		GCGACTACGATTAGGGGGTG
G4XMZ9	Polygalacturonase-inhibiting protein Forward Primer	PGIP3	GACAATCCCTACATTCTAGCTTCGTG
	Polygalacturonase-inhibiting protein Reverse Primer		GGAACGGAAGGTCACCAACAGC

Q9M4G9	Major latex protein 28 Forward Primer	XM_002284480.2	TCTTGTCCGGGAGTTGCTTT
	Major Latex Protein 28 Reverse Primer		TGATGGAGCCCATGGAAGTT
E0CSB6	Mitocondrial Malate Dehydrogenase Forward Primer	VIT_19s0014g01640	ACCATATCTCAGGTTGCTGG
	Mitocondrial Malate Dehydrogenase Reverse Primer		TGCCGGCATTGATGTTAAAG
F6I0F6	Alcohol dehydrogenase 1 Forward Primer	VIT_04s0044g01120	AGCAGGAAAGCCATTGGTGA
	Alcohol dehydrogenase Reverse Primer		AGTATGGCAGAGGGAGGTGA
F6H0C4	Dehydrin Forward Primer	VIT_18s0001g00360	GGAGGTGATTGTTACCGACT
	Dehydrin Reverse Primer		TCTCCAAGAGTCCATGCTTC
E0CR99	Flavonol synthase Forward Primer	VIT_18s0001g03430	CTTGGAGCCACCGTCTGATC
	Flavonol synthase Reverse Primer		TTCTTGGTCTTGTACCTAGCAGGAT
F6HID6	Fatty acid hydroperoxide lyase Forward Primer	VIT_12s0059g01060	GACGCCCTCGTCTCTAACTC
	Fatty acid hydroperoxide lyase Reverse Primer		GGCCCTGGAACCAGAAGTAG
F6H0Z2	Cationic Peroxidase Forward Primer	VIT_18s0001g06890	GGTGGCTCTCTCAGGAACTC
	Cationic peroxidase 1 Reverse Primer		ATTCTCATCCCCGCCTGTC
A9UFX7	Cytosolic Ascorbate Peroxidase Forward Primer	APX	TCTACTCTGCGTTCCGCTTC
	Cytosolic Ascorbate Peroxidase Reverse Primer		TCTGGTACTCCTCGCTCACA
D7T1F3	Calmodulin Forward Primer	VIT_06s0009g01910	TGATGGCAAAGAGAAGAGGGA
	Calmodulin Reverse Primer		TTCCGGCGACCATTCTTTTC
A5AEH1	14-3-3 Forward Primer	VITISV_032972	TCTCTCCTCCTTCGCATTTC
	14-3-3 Reverse Primer		TGAATTGAACCATCTCCTCGT
Q9LLL9	Aquaporin pip1 Forward Primer	PIP1b	GGTGGGACCGTTCATTGGAG
	Aquaporin pip1 Reverse Primer		AAAAGGCCAATCTCAAGCCCT

Q3ZPN4	Anthraniloyl-CoA: methanol anthraniloyl transferase Forward primer	AY705388.1	CCGGGTTTGGAGAGGTAAAC
	Anthraniloyl-CoA: methanol anthraniloyl transferase Reverse primer		CCTGAACCTCGTACAGAAGC
Q56AY1	Glutathione S-transferase Forward Primer	VIT_04s0079g00690	ACAAAGTTACCACCCAGCAA
	Glutathione S-transferase Reverse Primer		TCTTGGACAGCCTCTCTTCA
F6I0F5	Actin Forward Primer	VIT_04s0044g01150	GGTCAACCATGTTCCCTGGTATT
	Actin Reverse Primer		GGAGCAAGAGCAGTGATTTCCTT