

**Table S2.** All differential metabolites in the berries of ‘Red Globe’ grape during postharvest senescence

Index	Group	Formula	Compounds	Class I	Class II	CAS	Level	RG0_1	RG0_2	RG0_3	RG12_1	RG12_2	RG12_3	RG24_1	RG24_2	RG24_3
pme0120	6	C5H11NO2	5-Aminovaleric acid	Amino acids and derivatives	Amino acids and derivatives	660-88-8	B	1.46E+04	2.28E+04	1.79E+04	1.34E+05	2.72E+05	2.73E+05	2.28E+05	2.66E+05	3.21E+05
mws0491	1	C8H11N	Phenethylamine	Others	Others	64-04-0	B	2.57E+04	6.50E+04	1.03E+05	2.68E+04	1.78E+04	2.74E+04	5.71E+04	8.08E+04	9.75E+04
mws0263	4	C5H7NO3	L-Pyroglutamic acid	Amino acids and derivatives	Amino acids and derivatives	98-79-3	B	4.10E+04	3.78E+04	2.22E+04	1.46E+04	2.33E+04	1.17E+04	1.46E+04	2.27E+04	2.21E+04
mws0345	4	C6H11NO2	Pipecolic acid	Organic acids	Organic acids	535-75-1	B	5.65E+04	4.63E+04	3.00E+04	1.34E+04	3.72E+04	2.06E+04	1.78E+04	1.83E+04	1.40E+04
mws0001	2	C4H8N2O3	L-Asparagine Anhydrous	Amino acids and derivatives	Amino acids and derivatives	70-47-3	B	1.80E+06	6.83E+05	6.53E+05	4.00E+06	4.12E+06	7.23E+06	2.32E+06	2.88E+06	2.97E+06
mws0219	5	C4H7NO4	L-Aspartic Acid	Amino acids and derivatives	Amino acids and derivatives	56-84-8	B	7.01E+06	5.70E+06	4.52E+06	5.18E+06	4.52E+06	5.66E+06	2.12E+06	1.97E+06	3.07E+06
pme0040	3	C5H5N5	Adenine	Nucleotides and derivatives	Nucleotides and derivatives	73-24-5	A	2.88E+05	3.33E+05	8.59E+05	3.34E+05	3.46E+05	2.97E+05	1.10E+06	9.03E+05	8.03E+05
pme1173	1	C5H4N4O	Allopurinol	Nucleotides and derivatives	Nucleotides and derivatives	315-30-0	B	1.52E+04	9.23E+03	1.34E+04	9.00E+00	5.22E+03	9.00E+00	9.64E+03	9.39E+03	8.09E+03
pme0014	2	C5H9NO4	L-Glutamic acid	Amino acids and derivatives	Amino acids and derivatives	56-86-0	B	7.85E+05	9.00E+05	4.33E+05	1.02E+06	7.58E+05	8.16E+05	5.30E+05	2.53E+05	3.56E+05
pmp001285	6	C8H4O3	Phthalic anhydride	Phenolic acids	Phenolic acids	85-44-9	A	3.19E+05	4.73E+05	3.89E+05	6.81E+05	1.35E+06	6.51E+05	6.51E+05	7.88E+05	7.08E+05
pme1210	6	C5H11NO2S	L-Methionine	Amino acids and derivatives	Amino acids and derivatives	63-68-3	A	3.28E+06	2.14E+06	1.65E+06	3.84E+06	6.33E+06	4.12E+06	4.76E+06	4.55E+06	3.84E+06
pme1109	3	C5H5N5O	Guanine	Nucleotides and derivatives	Nucleotides and derivatives	73-40-5	A	2.21E+04	2.74E+04	5.65E+04	2.04E+04	3.46E+04	1.98E+04	7.10E+04	8.08E+04	4.77E+04
pme0183	6	C5H5N5O	2-Hydroxy-6-aminopurine	Nucleotides and derivatives	Nucleotides and derivatives	3373-53-3	B	6.20E+04	6.16E+04	7.91E+04	8.23E+04	1.49E+05	1.44E+05	1.11E+05	1.89E+05	2.22E+05
pme0256	2	C5H4N4O2	Xanthine	Nucleotides and derivatives	Nucleotides and derivatives	69-89-6	B	1.07E+05	3.74E+04	2.96E+04	1.84E+05	4.17E+05	5.95E+05	7.93E+04	2.74E+05	1.59E+05

pme2914	4	C6H10O5	3-Hydroxy-3-methylpentane-1,5-dioic acid	Amino acids and derivatives	Amino acids and derivatives	503-49-1	A	7.01E+05	1.73E+06	1.66E+06	7.40E+05	4.65E+05	4.34E+05	4.23E+05	3.41E+05	9.09E+05
pme1383	4	C8H11NO3	Pyridoxine	Others	Vitamin	65-23-6	A	1.07E+06	1.36E+06	1.76E+06	7.12E+05	5.54E+05	6.40E+05	1.23E+06	8.00E+05	7.00E+05
mws0024	3	C7H6O5	Gallic acid	Flavonoids	Flavanols	149-91-7	A	9.66E+03	1.10E+05	2.50E+04	2.05E+04	3.84E+04	2.61E+04	2.29E+04	3.04E+05	7.68E+04
pme0008	4	C6H13N3O3	L-Citrulline	Amino acids and derivatives	Amino acids and derivatives	372-75-8	B	3.73E+06	3.04E+06	2.25E+06	1.75E+06	1.86E+06	1.99E+06	1.34E+06	1.73E+06	1.30E+06
mws1200	6	C10H10O3	Trans-4-Hydroxycinnamic Acid Methyl Ester	Phenolic acids	Phenolic acids	19367-38-5	B	1.01E+03	2.10E+03	2.33E+03	5.59E+03	3.55E+03	3.13E+03	8.34E+03	1.71E+04	7.98E+03
mws1195	6	C10H10O3	Methyl p-coumarate	Phenolic acids	Phenolic acids	3943-97-3	B	9.00E+00	9.00E+00	9.00E+00	4.40E+03	5.62E+03	7.44E+03	8.16E+03	2.22E+04	9.10E+03
mws0981	6	C6H5N5O2	Isoxanthopterin	Nucleotides and derivatives	Nucleotides and derivatives	529-69-1	A	6.59E+03	8.08E+03	9.50E+03	1.43E+04	1.22E+04	1.09E+04	1.74E+04	1.71E+04	2.33E+04
mws1350	6	C9H10O4	Syringic Aldehyde	Phenolic acids	Phenolic acids	134-96-3	B	9.00E+00	9.00E+00	1.40E+04	9.00E+00	1.13E+04	7.14E+03	1.44E+04	2.05E+04	6.47E+03
pme2602	4	C3H8NO6P	O-Phospho-L-serine	Amino acids and derivatives	Amino acids and derivatives	407-41-0	B	3.56E+04	2.85E+04	3.64E+04	2.29E+03	3.87E+03	3.23E+03	4.25E+03	1.26E+04	1.78E+04
pme1261	6	C9H19NO4	Pantothenol	Others	Saccharides and Alcohols	16485-10-2	B	9.00E+00	9.00E+00	9.71E+03	1.07E+04	6.11E+03	4.01E+03	1.26E+04	3.15E+04	9.32E+03
mws2125	5	C3H4KO6P	Phosphoenolpyruvic acid	Organic acids	Organic acids	4265-07-0	B	1.27E+05	7.17E+04	5.27E+04	7.91E+04	5.52E+04	6.09E+04	2.28E+04	3.27E+04	2.85E+04
mws0248	3	C9H12N2O6	Uridine	Nucleotides and derivatives	Nucleotides and derivatives	58-96-8	B	2.90E+04	4.43E+04	6.30E+04	1.16E+04	2.48E+04	1.83E+04	5.73E+04	8.57E+04	6.74E+04
pme3961	3	C10H13N5O3	Deoxyadenosine	Nucleotides and derivatives	Nucleotides and derivatives	958-09-8	B	4.21E+03	6.13E+03	1.08E+04	8.36E+03	6.74E+03	5.94E+03	1.20E+04	1.93E+04	1.21E+04
pme0230	3	C10H13N5O4	Adenosine	Nucleotides and derivatives	Nucleotides and derivatives	58-61-7	A	8.50E+05	1.62E+06	3.45E+06	1.19E+06	1.16E+06	1.22E+06	2.62E+06	2.99E+06	3.34E+06
mws1060	4	C10H12N4O5	9-(β-D-Arabinofuranosyl)hypoxanthine	Nucleotides and derivatives	Nucleotides and derivatives	7013-16-3	B	5.55E+04	2.56E+04	3.22E+04	8.81E+03	1.23E+04	1.19E+04	4.26E+03	2.82E+04	2.32E+04
mws0383	1	C17H32O2	Cis-10-Heptadecenoic Acid	Lipids	Free fatty acids	29743-97-3	B	2.21E+04	3.61E+04	1.06E+05	2.29E+04	2.45E+04	2.18E+04	6.63E+04	8.42E+04	3.29E+04

pme3475	3	C15H12O5	Butin	Flavonoids	Dihydroflavone	492-14-8	B	9.63E+03	9.06E+03	1.40E+04	1.36E+04	9.75E+03	5.90E+03	1.79E+04	2.87E+04	2.27E+04
mws0914	3	C15H12O5	Pinobanksin	Flavonoids	Dihydroflavonol	548-82-3	A	5.56E+03	6.27E+03	1.24E+04	1.11E+04	7.48E+03	5.79E+03	1.66E+04	2.06E+04	1.72E+04
mws1038	5	C11H22N2O4S	(R)-Pantetheine	Others	Others	496-65-1	A	7.70E+04	6.13E+04	6.38E+04	3.21E+04	1.56E+04	3.05E+04	1.01E+04	5.73E+03	9.00E+00
mws2623	3	C18H34O2	11-Octadecanoic acid(Vaccenic acid)	Lipids	Free fatty acids	506-17-2	A	3.55E+05	5.53E+05	6.96E+05	3.34E+05	4.26E+05	3.32E+05	5.62E+05	1.95E+06	4.89E+05
mws0396	3	C18H34O2	Elaidic Acid	Lipids	Free fatty acids	112-79-8	A	1.07E+06	1.66E+06	1.93E+06	1.01E+06	1.34E+06	9.29E+05	1.62E+06	5.87E+06	1.47E+06
mws0668	4	C10H12N4O6	Xanthosine	Nucleotides and derivatives	Nucleotides and derivatives	146-80-5	B	3.52E+05	4.28E+05	5.13E+05	9.65E+04	2.14E+05	1.99E+05	7.60E+04	1.08E+05	1.44E+05
pmb2799	4	C18H32O3	12,13-EODE	Lipids	Free fatty acids	6799-85-5	A	1.58E+04	1.04E+04	5.02E+04	6.07E+03	4.67E+03	2.44E+03	1.36E+03	1.45E+04	4.51E+03
pmb2778	3	C18H32O3	9,10-EODE	Lipids	Free fatty acids	65167-83-1	B	9.47E+03	9.89E+03	1.98E+04	6.85E+03	9.93E+03	6.37E+03	2.72E+04	2.59E+04	1.42E+04
pme2954	2	C15H10O7	Quercetin	Flavonoids	Flavonols	117-39-5	A	7.88E+03	5.51E+03	3.79E+03	1.13E+04	1.20E+04	9.02E+03	6.62E+03	4.12E+03	5.44E+03
Hmyp002315	5	C15H10O7	3,5,7,4'-Tetrahydroxy-Coumaronochromone	Others	Others	-	A	1.70E+05	4.15E+04	9.00E+00	3.05E+04	7.37E+04	3.34E+04	1.51E+04	9.00E+00	2.76E+04
mws0044	2	C15H12O7	Taxifolin	Flavonoids	Dihydroflavonol	480-18-2	A	1.28E+04	2.55E+04	3.99E+04	3.17E+04	1.56E+05	6.04E+04	1.44E+04	5.04E+04	2.50E+04
pme1086	4	C10H17N3O6S	Glutathione reduced form	Amino acids and derivatives	Amino acids and derivatives	70-18-8	A	8.55E+05	6.91E+05	4.65E+05	2.13E+05	3.77E+04	6.77E+04	3.94E+04	9.00E+00	9.00E+00
Hmtn001120	4	C14H20O8	5-(2-Hydroxyethyl)-2-O-glucosylphenol	Phenolic acids	Phenolic acids	-	A	9.95E+06	2.40E+06	2.72E+06	8.04E+05	2.78E+06	5.11E+05	1.13E+06	8.65E+05	1.26E+06
pme3188	1	C9H13N2O9P	Uridine 5'-monophosphate	Nucleotides and derivatives	Nucleotides and derivatives	58-97-9	A	2.33E+04	3.36E+04	6.35E+04	1.78E+04	2.02E+04	1.44E+04	4.87E+04	4.69E+04	5.35E+04
pmm001694	1	C18H34O5	9,10,13-Trihydroxy-11-octadecadienoic acid	Lipids	Free fatty acids	-	A	1.17E+04	8.08E+03	5.28E+04	5.93E+03	6.36E+03	4.32E+03	4.59E+04	4.09E+04	1.85E+04

pmn001495	3	C19H38O4	Hexadecanoic acid 2,3-dihydroxypropyl ester	Lipids	Glycerol ester	542-44-9	A	1.05E+04	7.43E+03	4.13E+04	4.77E+03	6.54E+03	4.29E+03	3.96E+04	3.75E+04	1.54E+04
pmp000260	3	C13H16O10	D-glucopyranoside	Phenolic acids	Phenolic acids	-	B	1.53E+04	5.45E+04	1.64E+04	1.44E+04	1.80E+04	1.94E+04	1.88E+04	7.91E+04	6.69E+04
HmLn000873	3	C13H16O10	2-O-Galloyl-β-D-glucose	Tannins	Tannin	-	B	9.56E+05	3.25E+06	9.39E+05	7.23E+05	7.58E+05	9.40E+05	1.11E+06	4.34E+06	3.72E+06
pmb0981	1	C10H14N5O7P	Adenosine 5'-monophosphate	Nucleotides and derivatives	Nucleotides and derivatives	61-19-8	B	5.50E+05	1.07E+06	1.39E+06	4.92E+05	4.74E+05	4.44E+05	1.19E+06	9.95E+05	1.14E+06
pmp001283	1	C21H38O4	Glyceryl linoleate	Lipids	Glycerol ester	26545-74-4	B	1.23E+04	5.35E+03	9.81E+03	3.45E+03	4.34E+03	3.92E+03	9.77E+03	4.24E+03	8.43E+03
pmb0164	1	C21H38O4	MAG(18:2)iso	Lipids	Glycerol ester	-	B	7.72E+03	5.10E+03	7.95E+03	4.46E+03	3.27E+03	2.54E+03	7.06E+03	4.11E+03	8.74E+03
mws0232	6	C21H38O4	Riboflavin	Others	Vitamin	83-88-5	B	2.80E+03	8.25E+03	9.00E+00	6.13E+03	8.47E+03	4.09E+03	7.22E+03	1.59E+04	1.45E+04
Lmbp003668	5	C20H18O10	Kaempferol-3-arabinopyranoside	Flavonoids	Flavonols	-	A	2.00E+05	1.55E+04	2.32E+04	9.00E+00	1.09E+05	9.00E+00	9.00E+00	9.00E+00	9.00E+00
pmb0864	1	C19H40NO7P	LysoPE 14:0	Lipids	LPE	-	B	9.38E+03	1.94E+04	4.20E+04	1.32E+04	9.92E+03	1.31E+04	2.55E+04	3.18E+04	2.44E+04
pme0321	4	C21H20O10	Kaempferol 7-O-rhamnoside	Flavonoids	Flavonols	20196-89-8	B	1.85E+05	7.10E+03	2.68E+03	3.99E+03	2.36E+04	4.72E+03	1.56E+03	2.63E+03	4.61E+03
mws0072	4	C21H20O10	Apigenin 5-O-glucoside	Flavonoids	Flavonoid	28757-27-9	B	2.12E+04	1.07E+05	1.28E+05	3.38E+04	1.31E+04	1.42E+04	9.30E+03	1.26E+04	2.87E+04
Lmbp003737	4	C21H20O10	Kaempferol-3-O-rhamnoside	Flavonoids	Flavonols	482-39-3	A	3.34E+05	1.14E+04	4.56E+03	5.93E+03	4.38E+04	7.47E+03	1.75E+03	4.30E+03	6.05E+03
pme3392	5	C21H21O10+	Pelargonidin 3-O-glucoside	Flavonoids	Anthocyanins	47684-27-5	B	8.89E+05	1.06E+06	1.41E+06	6.13E+05	7.02E+05	6.90E+05	3.25E+05	4.10E+05	6.59E+05
mws4183	5	C20H18O11	Quercetin-3-O-α-L-arabinopyranoside(guaijaverin)	Flavonoids	Flavonols	22255-13-6	A	3.05E+05	7.74E+04	1.06E+05	2.27E+04	1.95E+05	3.00E+04	2.86E+04	2.13E+04	3.14E+04
mws2186	5	C20H18O11	Avicularin	Flavonoids	Flavonols	572-30-5	A	7.67E+05	1.47E+05	2.35E+05	7.32E+04	5.44E+05	8.56E+04	8.80E+04	7.87E+04	7.11E+04
Lmdp003509	5	C20H18O11	Quercetin 3-O-β-D-xylopyranoside	Flavonoids	Flavonols	549-32-6	B	7.91E+05	1.70E+05	2.33E+05	7.00E+04	5.43E+05	9.14E+04	8.59E+04	9.31E+04	8.29E+04
mws0089	5	C21H20O11	Kaempferol 7-O-glucoside	Flavonoids	Flavonols	16290-07-6	A	2.53E+06	3.97E+05	5.95E+05	4.29E+04	1.53E+06	4.12E+04	2.45E+04	6.60E+04	5.46E+04

mws2209	5	C21H20O11	Astragalin (Kaempferol 3-O-Glucoside)	Flavonoids	Flavonols	480-10-4 23627-	A	2.14E+06	3.65E+05	5.39E+05	5.86E+04	1.47E+06	5.38E+04	3.87E+04	4.73E+04	4.87E+04
mws0913	5	C21H20O11	Trifolin	Flavonoids	Flavonols	87-4	A	5.27E+05	7.64E+04	1.16E+05	2.35E+04	3.26E+05	1.17E+04	8.59E+03	3.02E+04	2.23E+04
Hmpp003270	5	C21H20O11	Luteolin-4'-O-β-D-glucoside	Flavonoids	Flavonoid	-	A	1.46E+07	1.69E+06	3.23E+06	3.27E+05	8.73E+06	3.17E+05	1.76E+05	3.22E+05	3.10E+05
Hmpp003391	5	C21H20O11	Luteolin-3'-O-β-D-glucoside	Flavonoids	Flavonoid	-	A	1.43E+07	1.75E+06	3.24E+06	3.59E+05	9.12E+06	3.66E+05	1.96E+05	2.96E+05	3.33E+05
Lmbp003393	5	C21H20O11	Quercetin-3-O-α-L-rhamnopyranoside	Flavonoids	Flavonols	-	A	1.25E+07	1.62E+06	2.96E+06	3.40E+05	8.52E+06	3.35E+05	1.92E+05	2.85E+05	2.84E+05
Hmcp002316	4	C21H20O11	Isorhamnetin-O-Pentoside	Flavonoids	Flavonols	-	B	5.10E+04	2.02E+04	4.00E+04	1.40E+04	2.93E+04	8.38E+03	7.55E+03	1.05E+04	1.21E+04
Zmhn003410	5	C21H20O11	Orientin	Flavonoids	Flavonoid carbonoside	28608-75-5	A	3.09E+06	2.33E+05	6.06E+05	3.78E+04	1.49E+06	3.82E+04	3.70E+04	4.66E+04	5.39E+04
Lmmp003422	5	C21H20O11	O-β-d-glucopyranoside	Flavonoids	Flavonols	-	A	1.11E+07	1.78E+06	3.36E+06	3.32E+05	8.51E+06	3.87E+05	1.95E+05	2.71E+05	3.07E+05
pmb0550	5	C21H21O11+	Cyanidin 3-O-glucoside (Kuromanin)	Flavonoids	Anthocyanins	47705-70-4	A	7.29E+07	8.01E+07	9.19E+07	5.13E+07	6.50E+07	5.30E+07	3.32E+07	3.41E+07	3.55E+07
pmf0027	5	C21H21O11+	Cyanidin 3-O-galactoside	Flavonoids	Anthocyanins	142506-26-1	B	8.04E+07	8.19E+07	1.00E+08	5.88E+07	7.14E+07	5.35E+07	3.95E+07	4.00E+07	4.07E+07
pmb3023	4	C21H22O11	Eriodictyol C-hexoside	Flavonoids	Dihydroflavone	-	B	2.75E+05	8.86E+05	4.33E+05	1.99E+05	2.00E+05	1.47E+05	1.22E+05	2.09E+05	2.30E+05
pmb0876	1	C21H44NO7	LysoPE 16:0	Lipids	LPE	53862-35-4	A	3.70E+05	1.54E+06	3.21E+06	1.18E+06	5.89E+05	7.94E+05	1.76E+06	2.29E+06	1.54E+06
pmd0160	1	C21H44NO7	LysoPE 16:0(2n isomer)	Lipids	LPE	-	A	3.29E+05	1.43E+06	2.84E+06	1.04E+06	5.64E+05	7.68E+05	1.49E+06	1.99E+06	1.41E+06
mws0351	2	C22H18O11	Gallate catechin gallate	Flavonoids	Flavanols	4233-96-9	B	1.10E+04	2.59E+04	1.34E+04	9.11E+03	9.09E+03	1.14E+05	9.00E+00	9.00E+00	9.00E+00
mws2220	2	C22H18O11	Gallocatechin 3-O-gallate	Flavonoids	Flavanols	5127-64-0	B	8.16E+03	2.83E+04	2.28E+04	2.79E+04	7.18E+03	2.15E+05	8.15E+03	7.65E+03	5.78E+03
pmn001702	5	C21H18O12	Tetrahydroxyflavone-7-O-β-D-glucuronide	Flavonoids	Flavonoid	-	A	3.51E+04	2.13E+04	1.10E+04	9.00E+00	4.14E+04	8.23E+03	6.01E+03	7.66E+03	1.09E+04
Lmzn001894	5	C21H18O12	Kaempferol-3-O-β-D-glucuronide	Flavonoids	Flavonols	-	A	4.07E+04	1.14E+04	1.86E+04	8.20E+03	3.48E+04	1.31E+04	4.36E+03	7.63E+03	2.45E+03
pmb2999	5	C22H22O11	Chrysoeriol 5-O-hexoside	Flavonoids	Flavonoid	-	A	5.94E+06	2.10E+06	3.13E+06	1.15E+06	4.88E+06	1.40E+06	1.03E+06	1.04E+06	1.12E+06

Zmhn003191	5	C22H22O11	Isoscoparin	Flavonoids	Flavonoid	20013-23-4	B	1.87E+05	6.44E+04	1.03E+05	3.46E+04	1.54E+05	3.79E+04	3.58E+04	4.17E+04	4.19E+04
mws2210	4	C22H23O11+	Peonidin 3-O-glucoside	Flavonoids	Anthocyanins	6906-39-4	B	1.42E+06	1.90E+06	3.97E+06	1.28E+06	1.58E+06	1.54E+06	7.75E+05	1.15E+06	1.71E+06
mws0856	5	C21H20O12	Spiraeoside	Flavonoids	Flavonols	20229-56-5	B	2.17E+07	1.04E+07	1.33E+07	5.38E+06	2.02E+07	6.19E+06	4.29E+06	5.32E+06	5.15E+06
pme3211	5	C21H20O12	Quercetin 3-O-glucoside(Isotrioliin)	Flavonoids	Flavonols	21637-25-2	A	2.81E+07	9.93E+06	1.56E+07	5.72E+06	2.14E+07	6.97E+06	4.02E+06	5.99E+06	5.90E+06
pmp001309	5	C21H20O12	6-Hydroxykaempferol-7-O-glucoside	Flavonoids	Flavonols	-	A	3.35E+06	1.28E+06	1.72E+06	8.21E+05	2.46E+06	7.77E+05	5.95E+05	7.62E+05	5.86E+05
pmp000580	5	C21H20O12	Isoquercitrin(Quercetin 3-O-β-D-glucoside)	Flavonoids	Flavonols	482-35-9	A	3.61E+07	2.07E+07	2.88E+07	1.12E+07	3.75E+07	1.36E+07	7.73E+06	1.35E+07	1.04E+07
mws0061	5	C21H20O12	Hyperin	Flavonoids	Flavonols	482-36-0	A	3.38E+07	1.42E+07	2.06E+07	9.52E+06	2.84E+07	1.00E+07	1.11E+07	7.98E+06	7.68E+06
Hmcn001884	5	C21H20O12	6-Hydroxyluteolin 5-glucoside	Flavonoids	Flavonoid	-	B	1.02E+07	3.91E+06	5.22E+06	1.63E+06	7.96E+06	2.95E+06	2.13E+06	1.72E+06	1.21E+06
mws1329	5	C21H20O12	Quercetin-7-O-Glucoside	Flavonoids	Flavonols	491-50-9	A	2.13E+07	8.71E+06	1.18E+07	4.56E+06	2.12E+07	5.64E+06	3.88E+06	4.88E+06	3.42E+06
Lmdp003286	5	C21H20O12	Isohyperoside	Flavonoids	Flavonols	35589-21-0	A	4.17E+06	1.10E+06	1.64E+06	6.71E+05	2.73E+06	7.83E+05	6.60E+05	6.56E+05	6.92E+05
pme1598	5	C22H24O11	Hesperetin 5-O-glucoside	Flavonoids	Dihydroflavonol	69651-80-5	A	2.40E+07	8.41E+06	1.30E+07	5.50E+06	1.83E+07	4.78E+06	3.97E+06	5.92E+06	5.52E+06
pmb2957	5	C24H19O10+C22H46NO7	Cyanidin O-syringic acid LysoPC	Flavonoids	Anthocyanins	-	A	6.83E+06	6.28E+06	8.75E+06	4.95E+06	5.61E+06	3.91E+06	2.44E+06	2.67E+06	2.78E+06
pmd0130	3	P	14:0(2n isomer)	Lipids	LPC	-	B	3.39E+04	5.10E+04	9.46E+04	4.00E+04	3.67E+04	3.82E+04	8.99E+04	9.50E+04	8.15E+04
pmn001641	4	C22H20O12	Kaempferide 3-O-β-D-glucuronide	Flavonoids	Flavonols	-	B	1.78E+04	3.30E+03	5.81E+03	9.00E+00	1.02E+04	9.00E+00	9.00E+00	5.72E+03	9.00E+00
pmb0874	1	C23H44NO7	LysoPE	Lipids	LPE	-	A	1.18E+04	4.06E+04	1.05E+05	2.17E+04	1.89E+04	2.09E+04	5.13E+04	8.88E+04	5.64E+04
pmf0374	5	C22H22O12	2,6-Dimethyl-7-octene-2,3,6-triol	Flavonoids	Flavonoid	5041-82-7	A	9.00E+05	6.70E+05	1.86E+06	2.70E+05	1.29E+06	4.11E+05	3.36E+05	2.07E+05	3.97E+05
Hmpp003242	4	C22H22O12	Isorhamnetin-3-O-β-D-glucoside	Flavonoids	Flavonols	-	A	5.05E+06	3.41E+06	8.21E+06	2.03E+06	4.60E+06	1.69E+06	1.56E+06	1.77E+06	2.75E+06

Hmcp002207	5	C22H22O12	O-β-D-glucopyranoside	Flavonoids	Flavonols	-	A	5.53E+06	3.59E+06	6.92E+06	2.19E+06	4.76E+06	2.14E+06	1.68E+06	1.72E+06	2.18E+06
pmb0856	3	C23H46NO7	LysoPE 18:1(2n isomer)	Lipids	LPE	-	B	2.70E+04	1.51E+05	2.87E+05	1.35E+05	8.09E+04	8.97E+04	2.09E+05	3.33E+05	2.13E+05
mws0289	1	C23H46NO7	LysoPE 18:1	Lipids	LPE	89576-29-4	A	1.58E+04	7.67E+04	1.56E+05	3.93E+04	2.49E+04	3.62E+04	7.12E+04	1.40E+05	6.35E+04
Lmmp001947	5	C21H20O13	Gossypetin 3-glucoside	Flavonoids	Flavonols	-	B	1.68E+05	1.01E+05	2.42E+05	4.98E+04	1.60E+05	7.66E+04	4.07E+04	5.21E+04	5.99E+04
Hmln001933	5	C21H20O13	Myricetin 3-O-galactoside	Flavonoids	Flavonoid	-	B	4.25E+05	1.62E+05	2.28E+05	1.10E+05	2.15E+05	1.33E+05	6.57E+04	1.23E+05	7.14E+04
Lmln001856	4	C21H20O13	5,7-Dihydroxy-4-oxo-2-(3,4,5-trihydroxyphenyl)-4H-chromen-3-yl-β-D-allopyranoside	Others	Others	-	B	3.46E+05	3.63E+05	2.35E+05	1.33E+05	1.84E+05	1.28E+05	7.38E+04	1.26E+05	1.10E+05
pmb2319	3	C23H48NO7	LysoPC 15:0	Lipids	LPC	-	B	1.51E+04	1.92E+04	3.86E+04	2.71E+04	1.91E+04	2.36E+04	4.38E+04	5.71E+04	4.98E+04
pmp001270	6	C24H48NO7	LysoPC(16:1)	Lipids	LPC	-	B	1.74E+04	3.20E+04	4.53E+04	4.22E+04	4.00E+04	4.06E+04	9.71E+04	9.86E+04	6.77E+04
Hmlp002821	4	C21H8O14	Myricetin-O-glucuronate	Flavonoids	Flavonols	-	A	3.80E+05	9.39E+04	7.53E+04	6.74E+04	1.09E+05	4.70E+04	3.73E+04	9.16E+04	7.85E+04
pmd0132	3	C24H50NO7	LysoPC 16:0(2n isomer)	Lipids	LPC	-	A	1.52E+06	2.68E+06	5.30E+06	2.62E+06	1.93E+06	2.53E+06	4.61E+06	5.28E+06	4.32E+06
pmb0855	3	C24H50NO7	LysoPC 16:0	Lipids	LPC	17364-16-8	A	1.44E+06	2.46E+06	5.08E+06	2.41E+06	1.82E+06	2.30E+06	4.55E+06	4.89E+06	4.26E+06
pmb2406	3	C25H52NO7	LysoPC 17:0	Lipids	LPC	-	B	8.04E+03	1.30E+04	2.49E+04	1.44E+04	1.26E+04	1.25E+04	2.51E+04	3.18E+04	2.62E+04
pmb0854	1	C26H48NO7	LysoPC 18:3	Lipids	LPC	-	B	1.13E+05	2.16E+05	4.48E+05	1.10E+05	9.24E+04	1.18E+05	2.42E+05	3.18E+05	2.91E+05
pmb0865	1	C26H48NO7	LysoPC 18:3(2n isomer)	Lipids	LPC	-	A	3.32E+05	8.96E+05	1.53E+06	5.65E+05	3.24E+05	5.02E+05	8.86E+05	1.25E+06	9.86E+05
pmp001273	3	C26H50NO7	LysoPC(18:2)	Lipids	LPC	-	A	3.65E+05	6.68E+05	1.67E+06	4.74E+05	4.98E+05	5.40E+05	1.34E+06	1.70E+06	1.29E+06
pmp001251	3	C26H51NO7	P+ PC(18:2)isomer	Lipids	PC	-	A	9.34E+05	2.45E+06	4.68E+06	2.10E+06	1.43E+06	1.78E+06	4.21E+06	5.46E+06	3.88E+06
pmp001250	3	C26H51NO7	P+ PC(18:2)	Lipids	PC	-	A	3.93E+05	6.65E+05	1.69E+06	4.93E+05	4.89E+05	5.21E+05	1.31E+06	1.67E+06	1.24E+06
pmp001281	3	C26H52NO7	LysoPC(18:1)	Lipids	LPC	-	A	9.56E+04	2.08E+05	3.59E+05	1.48E+05	1.46E+05	1.75E+05	2.96E+05	5.30E+05	3.07E+05

pmp001282	3	C28H50NO7 P	Propyl2-(trimethylammonio)ethyl phosphate	Others	Others	-	B	8.65E+03	2.19E+04	3.32E+04	1.25E+04	1.33E+04	1.75E+04	2.64E+04	4.50E+04	2.71E+04
pme0431	6	C30H24O12	Procyanidin A1	Tannins	Proanthocyanidins	103883-03-0	B	6.47E+03	7.79E+03	1.42E+04	1.57E+04	3.51E+04	1.85E+04	3.09E+04	3.92E+04	6.54E+04
pme0433	6	C30H24O12	Procyanidin A2	Tannins	Proanthocyanidins	41743-41-3	B	9.00E+00	1.06E+04	1.00E+04	1.21E+04	2.64E+04	1.88E+04	4.17E+04	4.25E+04	7.87E+04
pme0368	5	C27H30O14	Apigenin 7-rutinoside(Isorhoifolin)	Flavonoids	Flavonoid	552-57-8	B	2.38E+05	2.92E+05	3.13E+05	1.62E+05	2.93E+05	1.34E+05	7.50E+04	1.13E+05	1.65E+05
mws1290	2	C30H26O13	Tiliroside	Flavonoids	Flavonols	20316-62-5	B	3.96E+03	9.51E+03	6.63E+03	8.57E+03	1.23E+04	7.44E+03	2.85E+03	3.08E+03	4.53E+03
pme1605	5	C27H30O15	Kaempferol 3-O-robinobioside(Biorobin)	Flavonoids	Flavonols	17297-56-2	A	3.87E+05	6.91E+05	3.11E+05	3.53E+05	5.29E+05	3.86E+05	1.47E+05	2.40E+05	2.28E+05
pme0369	2	C27H30O15	Kaempferol 3-O-rutinoside(Nicotiflorin)	Flavonoids	Flavonols	17650-84-9	A	3.53E+05	3.73E+05	2.20E+05	3.96E+05	7.11E+05	2.66E+05	1.18E+05	2.16E+05	1.79E+05
Lnrp002296	2	C27H30O15	Kaempferol glc-rha	Flavonoids	Flavonols	-	A	2.80E+07	2.97E+07	2.47E+07	3.03E+07	4.61E+07	2.26E+07	1.25E+07	2.00E+07	1.39E+07
Lmbp003230	2	C27H30O15	Kaempferol-3-O-neohesperidoside	Flavonoids	Flavonols	32602-81-6	A	3.25E+07	3.10E+07	2.28E+07	3.02E+07	4.72E+07	2.20E+07	1.03E+07	1.81E+07	1.50E+07
pme1773	2	C27H31O15+	Cyanidin 3-O-rutinoside (Keracyanin)	Flavonoids	Anthocyanins	28338-59-2	B	1.41E+05	1.63E+05	7.98E+04	2.01E+05	8.44E+04	1.27E+05	9.01E+04	7.89E+04	2.66E+04
Hmcp001447	5	C26H28O16	Quercetin-O-Hexoside-O-Pentoside	Flavonoids	Flavonols	-	A	3.09E+04	2.49E+04	1.46E+04	1.48E+04	1.72E+04	9.37E+03	1.13E+04	9.02E+03	7.09E+03
Lmyp004052	4	C30H26O14	Quercetin 3-O-(6"-trans-p-Coumaroyl)-β-D-galactopyranoside	Flavonoids	Flavonols	-	A	6.56E+04	1.76E+05	1.79E+05	7.70E+04	7.97E+04	4.88E+04	2.20E+04	7.47E+04	8.16E+04
Lmbp003805	4	C27H31O16+	Delphinidin-3-rutinoside	Flavonoids	Flavonoid	15674-58-5	A	5.84E+04	1.52E+05	1.56E+05	6.99E+04	8.66E+04	5.40E+04	2.52E+04	5.40E+04	6.82E+04



mws4134	4	C20H32N6O12S2	Oxidized Glutathione	Amino acids and derivatives	Amino acids and derivatives	121-24-4	B	1.35E+05	9.29E+04	9.02E+04	2.22E+04	1.89E+04	1.98E+04	2.99E+04	1.88E+04	1.95E+04
Lmmp002963	5	C28H32O16	Methylquercetin glu-rha	Flavonoids	Flavonols	-	B	3.60E+05	1.51E+05	3.85E+05	1.08E+05	6.52E+05	1.66E+05	6.43E+04	1.47E+05	1.42E+05
pmf0614	4	C28H33O16+	Peonidin 3,5-O-diglucoside chloride	Flavonoids	Anthocyanins	47851-83-2	B	1.22E+05	2.32E+05	9.32E+05	6.24E+04	8.13E+04	6.42E+04	4.78E+04	5.48E+04	1.97E+05
pmp000596	5	C27H30O17	Quercetin 3,7-bis-O-β-D-glucoside	Flavonoids	Flavonols	-	B	6.02E+05	4.00E+05	4.38E+05	4.03E+05	4.91E+05	3.89E+05	2.30E+05	2.23E+05	1.88E+05
Lmhp002613	4	C27H30O17	Myricetin-O-glucoside-rhamnoside	Flavonoids	Flavonols	-	B	4.79E+04	1.44E+04	1.01E+04	5.73E+03	7.18E+03	9.09E+03	1.10E+04	6.78E+03	6.87E+03
pmp001312	4	C33H40O22	6-Hydroxykaempferol-3,7,6-O-triglycoside	Flavonoids	Flavonols	-	B	2.74E+04	6.47E+04	1.16E+05	3.17E+04	1.88E+04	2.05E+04	9.11E+03	1.78E+04	2.77E+04
pmb0615	4	C34H44O21	Hesperetin C-hexosyl-O-hexosyl-O-hexoside	Flavonoids	Dihydroflavonol	-	B	2.00E+04	4.51E+04	7.64E+04	1.22E+04	1.52E+04	1.78E+04	6.35E+03	1.02E+04	2.70E+04