

**Table 1.** Secondary and some primary metabolites tentatively assigned on the basis of accurate mass measurements, isotope patterns, and collision activated dissociation of selected ions in conjunction with plant metabolomic database searches. The mass accuracy,  $\Delta m$ , is the difference between the measured and calculated monoisotopic masses. Rows highlighted in yellow correspond to metabolites specific to the yellow sectors of the variegated leaf.

Name	Formula	Monoisotopic <i>m/z</i>	Measured <i>m/z</i>	$\Delta m$ (mDa)
aminobutyric acid, methylalanine	C <sub>4</sub> H <sub>9</sub> NO <sub>2</sub>	104.0712 (H)	104.0709	-0.3
hydroxybutanoate, hydroxybutyrate	C <sub>4</sub> H <sub>8</sub> O <sub>3</sub>	105.0552 (H)	105.0461	-9.1
succinate	C <sub>4</sub> H <sub>6</sub> O <sub>4</sub>	119.0344 (H)	119.0262	-8.2
asparagine	C <sub>4</sub> H <sub>8</sub> N <sub>2</sub> O <sub>3</sub>	133.0514 (H)	133.0415	-9.9
dehydropantoate, acetoxyhydroxybutyrate; coumarin	C <sub>6</sub> H <sub>10</sub> O <sub>4</sub> ; C <sub>9</sub> H <sub>6</sub> O <sub>2</sub>	147.0657 (H); 147.0446 (H)	147.0564	-9.3 11.8
glutamate	C <sub>5</sub> H <sub>9</sub> NO <sub>4</sub>	148.0610 (H)	148.0586	-2.4
allantoin	C <sub>4</sub> H <sub>6</sub> N <sub>4</sub> O <sub>3</sub>	159.0518 (H)	159.0571	5.3
7-oxocoumarin	C <sub>9</sub> H <sub>6</sub> O <sub>3</sub>	163.0395 (H)	163.0402	0.7
fucose, deoxygalactose	C <sub>6</sub> H <sub>12</sub> O <sub>5</sub>	165.0763 (H)	165.0677	-8.6
ascorbate; carbamoylaspartate; allantoate	C <sub>6</sub> H <sub>8</sub> O <sub>6</sub> ; C <sub>5</sub> H <sub>8</sub> N <sub>4</sub> O <sub>4</sub> ; C <sub>4</sub> H <sub>8</sub> N <sub>4</sub> O <sub>4</sub>	177.0399 (H); 177.0512 (H); 177.0624 (H)	177.0549	15.0; 3.7; -7.5
hexose sugars	C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>	181.0712 (H) 203.0532 (Na)	181.0752 203.0419	4.0 -11.3
succinate	C <sub>4</sub> H <sub>6</sub> O <sub>4</sub>	119.0344 (H)	119.0262	-8.2
2-oxo-7-methylthioheptanoate	C <sub>8</sub> H <sub>14</sub> O <sub>3</sub> S	191.0742 (H)	191.0815	7.3
uridine	C <sub>9</sub> H <sub>12</sub> N <sub>2</sub> O <sub>6</sub>	245.0774 (H)	245.0790	1.6
apigenin; pelargonidin, luteolinidin	C <sub>15</sub> H <sub>10</sub> O <sub>5</sub> ; C <sub>15</sub> H <sub>11</sub> O <sub>5</sub>	271.0606 (H); 271.0606 (+)	271.0612	0.6
acacetin	C <sub>16</sub> H <sub>12</sub> O <sub>5</sub>	285.0763 (H)	285.0768	0.5
kaempferol, luteolin;	C <sub>15</sub> H <sub>10</sub> O <sub>6</sub> ;	287.0556 (H);	287.0563	0.7

cyanidin	C <sub>15</sub> H <sub>11</sub> O <sub>6</sub>	287.0556 (H)		
methylkaempferol, methyluteolin, flavones; peonidin	C <sub>16</sub> H <sub>12</sub> O <sub>6</sub> ; C <sub>16</sub> H <sub>13</sub> O <sub>6</sub>	301.0712 (H); 301.0712 (+)	301.0728	1.6
acetylkaempferol, acetyluteolin	C <sub>17</sub> H <sub>12</sub> O <sub>7</sub>	329.0661 (H)	329.0682	2.1
methoxykaempferol, methoxyluteolin, methylquercetin; petunidin	C <sub>16</sub> H <sub>12</sub> O <sub>7</sub> ; C <sub>16</sub> H <sub>13</sub> O <sub>7</sub>	317.0661 (H); 317.0661 (+)	317.0727	6.6
methoxy-hydroxyphenyl glucoside	C <sub>13</sub> H <sub>18</sub> O <sub>8</sub>	325.0893 (Na)	325.0924	3.1
flavonols	C <sub>17</sub> H <sub>16</sub> O <sub>6</sub>	339.0839 (Na)	339.0886	4.7
GA <sub>51</sub> -catabolite	C <sub>19</sub> H <sub>22</sub> O <sub>5</sub>	353.1365 (Na)	353.1442	7.7
sucrose	C <sub>12</sub> H <sub>22</sub> O <sub>11</sub>	365.1060 (Na)	365.1063	0.3
kaempferol rhamnoside, luteolin rhamnoside, apigenin glucoside, pelargonidin glucoside; luteolinidin glucoside	C <sub>21</sub> H <sub>20</sub> O <sub>10</sub> ; C <sub>21</sub> H <sub>21</sub> O <sub>10</sub>	433.1135 (H); 433.1135 (+)	433.1126	-0.9
kaempferol glucoside, luteolin glucoside; cyanidin glucoside	C <sub>21</sub> H <sub>20</sub> O <sub>11</sub> ; C <sub>21</sub> H <sub>21</sub> O <sub>11</sub>	449.1084 (H); 449.1084 (+)	449.1082	-0.2
kaempferol glucuronide, luteolin glucuronide	C <sub>21</sub> H <sub>18</sub> O <sub>12</sub>	463.0871 (H)	463.0938	6.7
methylkaempferol glucuronide	C <sub>22</sub> H <sub>21</sub> O <sub>12</sub>	477.1033 (+)	477.1013	-2.0
acetylkaempferol glucoside, acetyluteolin glucoside	C <sub>23</sub> H <sub>22</sub> O <sub>12</sub>	491.1190 (H)	491.1185	-0.5
methoxykaempferol glucuronide, methoxyluteolin glucuronide	C <sub>22</sub> H <sub>20</sub> O <sub>13</sub>	493.0982 (H)	493.0971	-1.1
kaempferol glucoside rhamnoside, luteolin glucoside rhamnoside; cyanidin glucoside rhamnoside, luteolinidin diglucoside, pelargonidin diglucoside	C <sub>27</sub> H <sub>30</sub> O <sub>15</sub> ; C <sub>27</sub> H <sub>31</sub> O <sub>15</sub>	595.1663 (H); 595.1663 (+)	595.1657	-0.6
apigenin diglucuronide	C <sub>27</sub> H <sub>26</sub> O <sub>17</sub>	623.1248 (H)	623.1267	1.9

acacetin diglucoronide, kaempferol (acetyl- coumarylglucoside)	$C_{32}H_{28}O_{14}$	637.1405 (H)	637.1389	-1.6
kaempferol diglucoronide, luteolin diglucoronide	$C_{27}H_{26}O_{18}$	639.1198 (H)	639.1191	-0.6
luteolin methyl ether glucuronosyl glucoronide	$C_{28}H_{28}O_{18}$	653.1348 (H)	653.1339	-0.9
kaempferol-(diacetyl coumarylrhamnoside)	$C_{34}H_{30}O_{14}$	663.1714 (H)	663.1614	-10.0