

**Table S1.** The accession numbers of genes in the paper.

Species	Genes	GenBank accession No.
<i>Beta vulgaris</i>	<i>BvADH<math>\alpha</math></i>	AST12931.1
<i>Beta vulgaris</i>	<i>BvADH<math>\beta</math></i>	AST12926.1
<i>Mirabilis jalapa</i>	<i>MjADH<math>\alpha</math></i>	AMR60658.1
<i>Nepenthes ventricosa</i> × <i>Nepenthes alata</i>	<i>NaADH<math>\beta</math></i>	AST12937.1
<i>Portulaca oleracea</i>	<i>PoADH<math>\alpha</math></i>	AST12940.1
<i>Rivina humilis</i>	<i>RhADH<math>\alpha</math></i>	AST12939.1
<i>Spinacia oleracea</i>	<i>SoADH<math>\alpha</math></i>	AST12938.1
<i>Spinacia oleracea</i>	<i>SoADH<math>\beta</math></i>	AST12936.1
<i>Amaranthus cruentus</i>	<i>AcCYP76AD2</i>	AET43291.1
<i>Amaranthus hybridus</i>	<i>AhCYP76AD1-like</i>	AKI33932.1
<i>Basella alba</i>	<i>BaCYP76AD13</i>	AJD87469.1
<i>Basella alba</i>	<i>BaCYP76AD14</i>	AJD87470.1
<i>Beta vulgaris</i>	<i>BvCYP76AD5</i>	AJD87473.1
<i>Beta vulgaris</i>	<i>BvCYP76AD6</i>	ALS88208.1
<i>Beta vulgaris</i>	<i>BvCYP76AD1</i>	AQS22859.1
<i>Beta vulgaris</i>	<i>Bv_xkhk</i>	
<i>Beta vulgaris</i>	<i>Bv_sidm</i>	
<i>Cleretum bellidiforme</i>	<i>CbCYP76AD12</i>	AJD87468.1
<i>Cleretum bellidiforme</i>	<i>CbCYP76AD16</i>	AJD87472.1
<i>Celosia cristata</i>	<i>CcCYP76AD4</i>	AGI78466.1
<i>Chenopodium quinoa</i>	<i>CqCYP76AD1</i>	XP_021769302.1
<i>Dianthus caryophyllus</i>	<i>DcCYP76AD19</i>	AMA07825.1
<i>Mirabilis jalapa</i>	<i>MjCYP76</i>	ALT04745.1
<i>Mirabilis jalapa</i>	<i>MjCYP76AD3</i>	AET43292.1

<b>Species</b>	<b>Genes</b>	<b>GenBank accession No.</b>
<i>Mirabilis jalapa</i>	<i>MjCYP76AD7</i>	AJD87463.1
<i>Mirabilis jalapa</i>	<i>MjCYP76AD15</i>	AJD87471.1
<i>Opuntia ficus</i>	<i>OfCYP76AD8</i>	AJD87464.1
<i>Opuntia ficus</i>	<i>OfCYP76AD9</i>	AJD87465.1
<i>Phytolacca americana</i>	<i>PaCYP76AD10</i>	AJD87466.1
<i>Phytolacca americana</i>	<i>PaCYP76AD11</i>	AJD87467.1
<i>Mollugo verticillata</i>	<i>MvCYP76AD17</i>	AMA07822.1
<i>Mollugo verticillata</i>	<i>MvCYP76F84</i>	AMA07823.1
<i>Carnegiea gigantea</i>	<i>CgDODAA1</i>	MN136222
<i>Carnegiea gigantea</i>	<i>CgDODAA2</i>	MN136223
<i>Carnegiea gigantea</i>	<i>CgDODAB</i>	MN136224
<i>Chenopodium quinoa</i>	<i>CqDODAI</i>	XM_021913611.1
<i>Beta vulgaris</i>	<i>BvDODAA1</i>	HQ656027.1
<i>Beta vulgaris</i>	<i>BvDODAA2</i>	MN153195
<i>Beta vulgaris</i>	<i>BvDODAA3</i>	MN153196
<i>Beta vulgaris</i>	<i>BvDODAA4</i>	MN136228
<i>Beta vulgaris</i>	<i>BvDODAA5</i>	MN153197
<i>Beta vulgaris</i>	<i>BvDODAB</i>	MN153198
<i>Mesembryanthemum crystallinum</i>	<i>McDODAA1</i>	MN136225
<i>Mesembryanthemum crystallinum</i>	<i>McDODAA2</i>	MN136226
<i>Mesembryanthemum crystallinum</i>	<i>McDODAB</i>	MN136227
<i>Stegnosperma halimifolium</i>	<i>ShDODAA1</i>	MN136219
<i>Stegnosperma halimifolium</i>	<i>ShDODAA2</i>	MN136220
<i>Stegnosperma halimifolium</i>	<i>ShDODAB</i>	MN136221
<i>Macarthuria australis</i>	<i>MaDODAA</i>	MN153205

<b>Species</b>	<b>Genes</b>	<b>GenBank accession No.</b>
<i>Limeum aethiopicum</i>	<i>LaDODA</i>	MN153203
<i>Kewa caespitosa</i>	<i>KcDODAA<math>\alpha</math>1</i>	MN153209
<i>Kewa caespitosa</i>	<i>KcDODAA<math>\alpha</math>2</i>	MN153210
<i>Polycarpon tetraphyllum</i>	<i>PtDODA</i>	MN153211
<i>Cardionema ramosissimum</i>	<i>CrDODA</i>	MN153200
<i>Spergularia marina</i>	<i>SmDODAA<math>\alpha</math></i>	MN153204
<i>Telephium imperati</i>	<i>TiDODA</i>	MN153212
<i>Parakeelya mirabilis</i>	<i>PmDOD</i>	KF747352.1
<i>Parakeelya mirabilis</i>	<i>PmDOD-like</i>	KF747353.1
<i>Ptilotus hybrid</i>	<i>PhybDOD-like</i>	KF747354.1
<i>Mirabilis jalapa</i>	<i>MjDOD</i>	AB435372.1
<i>Portulaca grandiflora</i>	<i>PgDODA</i>	AJ580598.1
<i>Amaranthus hypochondriacus</i>	<i>AhUGT79B30-like2</i>	AH018627-RA
<i>Amaranthus hypochondriacus</i>	<i>AhUGT79B30-like3</i>	AH018628-RA
<i>Amaranthus hypochondriacus</i>	<i>AhUGT79B30-like</i>	AH018629-RA
<i>Amaranthus hypochondriacus</i>	<i>AhB5GT</i>	AHV78225.1
<i>Amaranthus hypochondriacus</i>	<i>AhCDOPA5GT</i>	AHV78226.1
<i>Amaranthus tricolor</i>	<i>AmaB5GT</i>	AJY59053.1
<i>Amaranthus tricolor</i>	<i>AmaB6GT</i>	AJY59055.1
<i>Amaranthus tricolor</i>	<i>AmaCDOPA5GT</i>	AJY59054.1
<i>Beta vulgaris</i>	<i>Bv3GGT-like1</i>	XP_010695817
<i>Beta vulgaris</i>	<i>Bv3GGT-like2</i>	XP_010686377
<i>Beta vulgaris</i>	<i>BvUGT97B30-like</i>	XP_010666234
<i>Beta vulgaris</i>	<i>BvUGT97B6-like1</i>	XP_010674067
<i>Beta vulgaris</i>	<i>BvUGT97B6-like2</i>	XP_010675464

<b>Species</b>	<b>Genes</b>	<b>GenBank accession No.</b>
<i>Beta vulgaris</i>	<i>BvGT partial</i>	AAO88911.1
<i>Beta vulgaris</i>	<i>BvUGT71F1</i>	AAS94329.1
<i>Beta vulgaris</i>	<i>BvUGT73A4</i>	AAS94330.1
<i>Beta vulgaris</i>	<i>BvUGT92A1-like</i>	XP_10681653.1
<i>Bougainvillea spectabilis</i>	<i>BsCDOPA5GT</i>	AIS20905.1
<i>Cleretum bellidiforme</i>	<i>CbB5GT</i>	CAB56231.1
<i>Cleretum bellidiforme</i>	<i>CbB6GT</i>	AF374004.1
<i>Celosia cristata</i>	<i>CcDOPA5GT</i>	BAD91804.1
<i>Chenopodium quinoa</i>	<i>CqUGT79B6-like1</i>	XP_021719267
<i>Chenopodium quinoa</i>	<i>Cq3GGT-like1</i>	XP_021726554
<i>Chenopodium quinoa</i>	<i>CqUGT79B2-like</i>	XP_021731181
<i>Chenopodium quinoa</i>	<i>CqUGT79B30-like1</i>	XP_021735671
<i>Chenopodium quinoa</i>	<i>Cq3GGT-like2</i>	XP_021735839
<i>Chenopodium quinoa</i>	<i>CqUGT79B30-like2</i>	XP_021735840
<i>Chenopodium quinoa</i>	<i>CqAmaSy2</i>	XP_021735841
<i>Chenopodium quinoa</i>	<i>CqUGT79B6-like2</i>	XP_021747968
<i>Chenopodium quinoa</i>	<i>CqAmaSy1</i>	XP_021754077
<i>Chenopodium quinoa</i>	<i>CqUGT79B30-like5</i>	XP_021758620
<i>Chenopodium quinoa</i>	<i>Cq3GGT-like3</i>	XP_021766006
<i>Chenopodium quinoa</i>	<i>CqUGT79B6-like3</i>	XP_021773738
<i>Chenopodium quinoa</i>	<i>CqUGT92A1-like</i>	XP_021748306.1
<i>Mirabilis jalapa</i>	<i>MjCDOPA5GT</i>	BAD91803.1
<i>Opuntia ficus-indica</i>	<i>OfB5GT putative</i>	ABW79879.1
<i>Phytolacca americana</i>	<i>PaGT3</i>	BAG71127.1
<i>Phytolacca americana</i>	<i>PaGT2</i>	BAG71125.1