

Supporting Information 1

Table S1 Statistics of output of the RNA-Seq

Sample	Raw reads	Raw bases	Clean reads	Clean bases	Q20_rate	Q30_rate	GC_rate
ELC-UV0h-1	57,881,318	8,682,197,700	57,637,084	8,538,910,053	97.36%	92.52%	42.57%
ELC-UV0h-2	42,771,148	6,415,672,200	42,551,148	6,296,614,517	97.31%	92.48%	42.56%
ELC-UV0h-3	39,507,428	5,926,114,200	39,339,862	5,840,390,302	97.91%	93.64%	42.49%
ELC-UV3h-1	43,008,738	6,451,310,700	42,808,178	6,347,717,512	98.02%	93.96%	42.83%
ELC-UV3h-2	44,155,052	6,623,257,800	43,973,208	6,519,701,416	98.01%	93.89%	42.72%
ELC-UV3h-3	42,603,226	6,390,483,900	42,408,872	6,275,545,845	97.94%	93.75%	42.24%

Note: ELC-UV0h, the callus of *E. lathyris* was not exposed to UV-B irradiation; ELC-UV3h, the callus of *E. lathyris* were exposed to UV-B irradiation for 3h.

Table S2. GenBank accession numbers of MT proteins from other plants in Figure 3B

Genes	Species	Accession number
ElOMT1	<i>Euphorbia lathyris</i>	OR902769
BrF3'OMT	<i>Brassica rapa</i>	XP_009132451
ObFOMT1	<i>Ocimum basilicum</i>	AFU50295.1
AtOMT1	<i>Arabidopsis thaliana</i>	AAB96879.1
HvOMT1	<i>Hordeum vulgare</i>	ABQ58825.1
ChOMT	<i>Medicago sativa</i>	AAB48059.1
CrOMT2	<i>Catharanthus roseus</i>	Q8GSN1
ZmOMT1	<i>Zea mays</i>	ABQ58826.1
TaCOMT1	<i>Triticum aestivum</i>	Q84N28.1
HvF7OMT	<i>Hordeum vulgare</i>	CAA54616.1
CdFOMT5	<i>Citrus depressa</i>	BAU51794.1
PsOMT1	<i>Pinus sylvestris</i>	AQX17825.1
CaOMT2	<i>Citrus aurantium</i>	ADK97702.1
PfOMT3	<i>Perilla frutescens</i>	QOE76460.1
GmIOMT1	<i>Glycine max</i>	NP_001353843.1
IiOMT3	<i>Isatis tinctoria</i>	WET17731.1
PaCCoAOMT1	<i>Polypodiodes amoena</i>	QCY65250.1
ZvCCoAOMT	<i>Zinnia violacea</i>	AAA59389.1
GISOMT9	<i>Glycine max</i>	NP_001236240.1
AnthOMT	<i>Solanum lycopersicon</i>	NP_001289828.1
EpCCoAOMT	<i>Euphorbia peplus</i>	WCJ17706.1
PaMTH1	<i>Podospora anserina</i>	4QVK_A
SbCCoAOMT	<i>Sorghum bicolor</i>	5KVA_A
ClOMT	<i>Curcuma longa</i>	UXX21556.1
IiOMT1	<i>Isatis tinctoria</i>	WET17729.1
IiOMT2	<i>Isatis tinctoria</i>	WET17730.1
AaCCoAOMT	<i>Artemisia annua</i>	PWA69367.1
HmOMT1	<i>Haplomitrium mnioides</i>	QCG81601.1
PaF6OMT	<i>Plagiochasma appendiculatum</i>	APX42106.1
MeOMT1	<i>Marchantia emarginata</i>	QCG81600.1
MpOMT	<i>Mucuna pruriens</i>	RDX82993.1

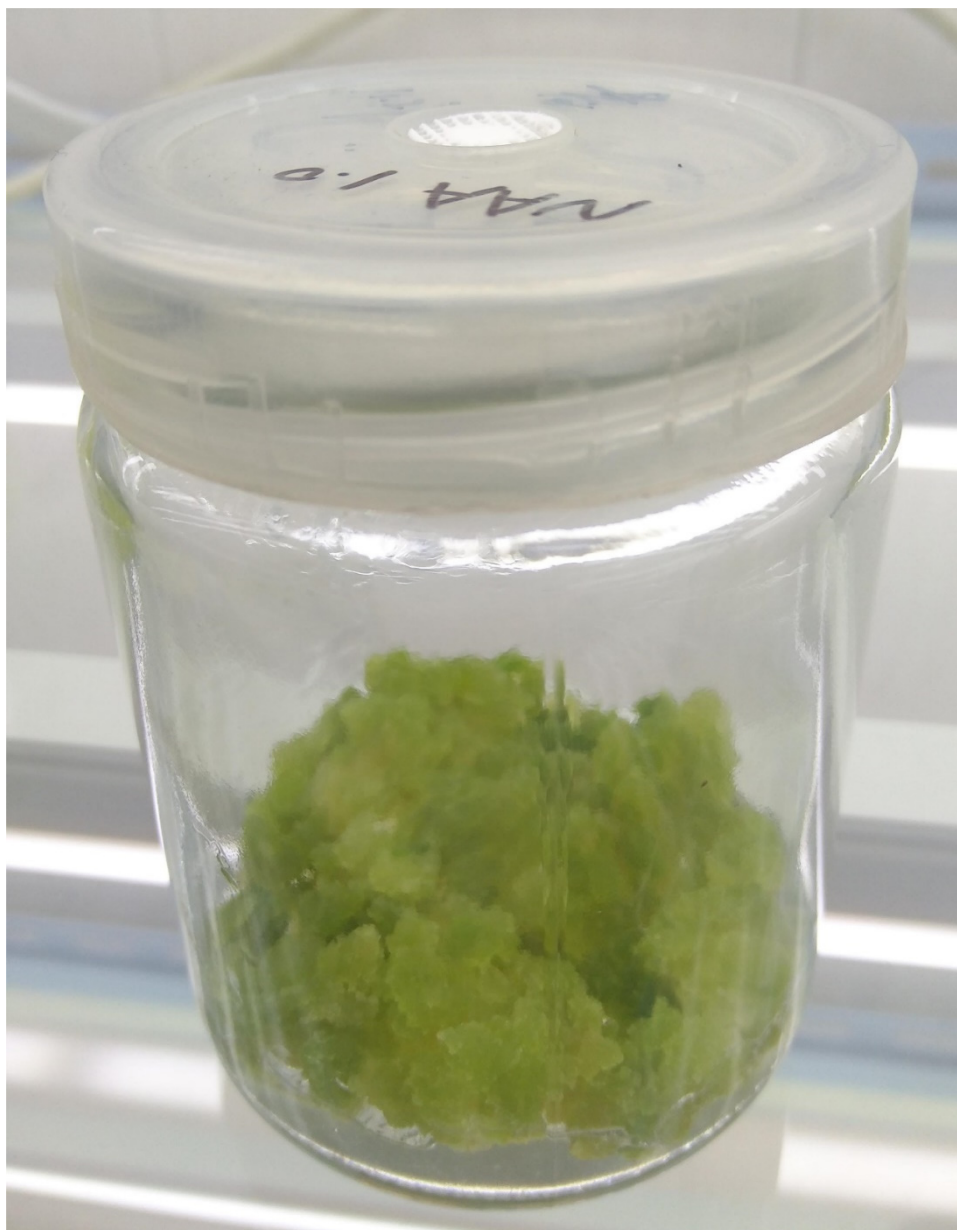


Figure S1 Picture of *E. lathyris* callus