

Table S2. FAD proteins used in sequence alignment and phylogenetic analysis.

Species	Lable	Acession Number	Per. Ident	E value
<i>Arabidopsis thaliana</i>	AtFAD8	AT5G05580		
<i>Arabidopsis thaliana</i>	AtFAD2	AAA32782.1	75%	0.0
<i>Arabidopsis thaliana</i>	AtFAD3	BAA05514.1	70.78%	0.0
<i>Arabidopsis thaliana</i>	AtFAD7	AT3G11170		
<i>Arabidopsis thaliana</i>	AtFAD6	AAA92800.1		
<i>Oryza sativa</i>	OsFAD3	BAA11397	68.44%	1e-175
<i>Oryza sativa</i>	OsFAD2	ACN87220.1	69.13%	0.0
<i>Oryza sativa</i>	OsFAD8	BAE79785		
<i>Oryza sativa</i>	OsFAD6	BAD09897		
<i>Oryza sativa</i>	OsFAD7	BAE79784.1		
<i>Zea mays</i>	ZmFAD2	ABF50053.1	69.31%	0.0
<i>Zea mays</i>	ZmFAD7	BAA22441.1		
<i>Zea mays</i>	ZmFAD8	BAA22442.1		
<i>Zea mays</i>	ZmFAD6	DAA48913		
<i>Zea mays</i>	ZmFAD3	NP_001149938	71.51%	4e-173
<i>Brassica napus</i>	BnFAD3	AAA61775.1	72.01%	0.0
<i>Brassica napus</i>	BnFAD2	ACP39502.1	77.66%	0.0
<i>Brassica napus</i>	BnFAD6	AAT65203		
<i>Brassica napus</i>	BnFAD7	ACS26170		
<i>Brassica napus</i>	BnFAD8	ACS26172		
<i>Glycine max</i>	GmFAD3A	AAO24263.1	75.50%	0.0
<i>Glycine max</i>	GmFAD3B	ABV00679.1	73.89%	0.0
<i>Glycine max</i>	GmFAD3C	ABV00681.1	77.31%	0.0
<i>Glycine max</i>	GmFAD2-2	AAB00860.1	80.73%	0.0
<i>Glycine max</i>	GmFAD2-1	AAB00859.1	81.25%	0.0
<i>Glycine max</i>	GmFAD6	AAA50158.1		
<i>Glycine max</i>	GmFAD7-1	ACS15381.1		
<i>Glycine max</i>	GmFAD7-2	ACF19424.1		
<i>Medicago truncatula</i>	MtFAD2-1	Medtr1g054035.1	76.36%	0.0
<i>Medicago truncatula</i>	MtFAD2-2	Medtr1g111880.1	67.45%	0.0
<i>Medicago truncatula</i>	MtFAD2-3	Medtr7g093200.1	77.40%	0.0
<i>Medicago truncatula</i>	MtFAD3-1	Medtr3g464330.1	72.30%	0.0
<i>Medicago truncatula</i>	MtFAD3-2	Medtr5g071170.1	71.77%	0.0
<i>Medicago truncatula</i>	MtFAD7-1	Medtr4g015630.1		
<i>Medicago truncatula</i>	MtFAD7-2	Medtr7g068780.1		
<i>Medicago truncatula</i>	MtFAD6	Medtr4g130980.1		
<i>Solanum lycopersicum</i>	SIFAD2	XP_004228665	75.26%	0.0
<i>Solanum lycopersicum</i>	SIFAD3	ABX24525	73.26%	0.0
<i>Solanum lycopersicum</i>	SIFAD6	XP_004242585		
<i>Solanum lycopersicum</i>	SIFAD7	NP_001234592		

<i>Solanum lycopersicum</i>	SIFAD3	ABX24525.1	73.26%	0.0
<i>Nicotiana tabacum</i>	NtFAD2	AAT72296	76.82%	0.0
<i>Nicotiana tabacum</i>	NtFAD6	AIA22326		
<i>Nicotiana tabacum</i>	NtFAD7	AIA22325		
<i>Nicotiana tabacum</i>	NtFAD3	BAA05515.1	69.55%	0.0
<i>Olea europaea</i>	OeFAD3	ABG88130.2	72.38%	0.0
<i>Olea europaea</i>	OeFAD2-2	AAW63041.1	76.04%	0.0
<i>Olea europaea</i>	OeFAD2-1	AAW63040.1	78.65%	0.0
<i>Olea europaea</i>	OeFAD6	AAW63039.1		
<i>Olea europaea</i>	OeFAD7	ABG88131.1		
<i>Olea europaea</i>	OeFAD8	XP_022887446.1		
<i>Jatropha curcas</i>	JcFAD3	ABX82798.1	79.30%	0.0
<i>Jatropha curcas</i>	JcFAD2	ACR15954.1	75.78%	0.0
<i>Jatropha curcas</i>	JcFAD7	ABE72960.1		
<i>Jatropha curcas</i>	JcFAD8	ABU96743.1		
<i>Ricinus communis</i>	RcFAD7	AAA73511.1		
<i>Ricinus communis</i>	RcFAD6	XP_002532960.1		
<i>Ricinus communis</i>	RcFAD2	ABK59093.1	86.49%	0.0
<i>Ricinus communis</i>	RcFAD3	EEF36775.1	87.07%	0.0
<i>Vernicia fordii</i>	VfFAD3	AF047172.2	79.72%	0.0
<i>Perilla frutescens</i>	PfFAD3A	AAL36934.1	69.52%	0.0
<i>Perilla frutescens</i>	PfFAD3B	AAD15744.1	71.79%	0.0
<i>Triticum aestivum</i>	TaFAD3	BAA28358.1	71.55%	0.0
<i>Triticum aestivum</i>	TaFAD7	BAA07785.3		
<i>Brachypodium distachyon</i>	BdFAD2-1	XP_010231291.2	68.62%	0.0
<i>Brachypodium distachyon</i>	BdFAD2-2	XP_003570235.1	68.80%	0.0
<i>Brachypodium distachyon</i>	BdFAD8	XP_003558157.1		
<i>Brachypodium distachyon</i>	BdFAD7	XP_003562400.1		
<i>Brachypodium distachyon</i>	BdFAD3	XP_003577162.1	68.75%	6E-179
<i>Brachypodium distachyon</i>	BdFAD6	XP_003574539.1		
<i>Linum usitatissimum</i>	LuFAD3A	ABA02172.1	93%	0.0
<i>Linum usitatissimum</i>	LuFAD3B	ABA02173.1	74.87%	0.0