

Table S5 : *Alnus glutinosa* homologs of *Lotus japonicus* or *Medicago truncatula* genes involved in Nod factor signal transduction

^a : Probe flagged as present in nodules, but absent in non inoculated roots; ^b : EST non entirely sequenced; ^c : Accession number of the longest EST

^d : Cluster reference from the Medicago EST Navigation System database (medicago.toulouse.inra.fr/Mt/EST);

* : Blast analysis performed by tBlastn since sequence was not present in NCBI nr database.

Mt or Lj Homolog	Clone name	Accession number	EST length (nt)	Blast description				
				Description	E-value	Identities (%)	AA coverage	Homolog length (AA) Coverage (%)
Lys6/Lys7/Nfr1	AG-R01f_025_F02	FQ351365	1489	BAI79273.1 LysM type receptor kinase (Lys6) [Lotus japonicus]	4e-146	85	303-622	622 51
				BAI79274.1 LysM type receptor kinase (Lys7) [Lotus japonicus]	4e-144	79	275-621	621 56
				CAE02590.1 Nod-factor receptor 1b (Nfr1b) [Lotus japonicus]	9e-127	74	305-623	623 51
SYMREM1 (Remorin)	AG-N01f_042_I06	FQ335657	462 ^b	BG580614 EST482341 GVN Medicago truncatula cDNA clone*	6e-43*	51*	26-193*	199 84
SymRK	AG-R01f_005_M15	FQ353234	620 ^b	AAV22386.1 symbiosis receptor-like kinase (Symrk) [Alnus glutinosa]	2e-113	98	40-243	941 22
				ACA50285.1 receptor kinase (Symrk) [Casuarina glauca]	2e-70	68	42-241	942 21
				CAP62376.1 symbiosis receptor-like kinase (Symrk) [Datisca glomerata]	7e-49	53	42-240	934 21
				CAD10807.1 nodulation receptor kinase (Nork) [Medicago sativa]	1e-42	48	40-232	925 21
				AAM67418.1 receptor-like kinase SYMRK [Lotus japonicus]	9e-41	47	40-234	923 21
CCaMK	AG-N01f_019_F12	FQ344068	1732	CAJ76699.1 calcium calmodulin-dependent protein kinase (CCaMK) [Lotus japonicus]	0.0	79	8-518	518 99
				Q6RET7.1 Ca2+ and calmodulin-dependent protein kinase DMI-3 [Medicago truncatula]	0.0	78	7-509	523 96
RPG	AG-N01f_002_M12 ^a	FQ334745	1138	ABI51615.1 RPG [Medicago truncatula]	4e-62	44	3-348	1255 28
Hap2-1	AG-N01f_042_O13	FQ335571	1757	BAG50055.1 transcription factor CCAAT (CBF-A22) [Lotus japonicus]	3e-106	61	1-326	328 99
				BAG50060.1 transcription factor CCAAT (CBF-A01) [Lotus japonicus]	4e-102	60	1-332	332 100
				ABP68866.1 CCAAT-binding transcription factor (Hap2-1) [Medicago truncatula]	1e-98	61	1-326	333 98
NSP1	AG-J07f_002_D03	FQ356663	543	ABK35066.1 nodulation signaling pathway 1 protein (Nsp1) [Lotus japonicus]	3e-38	79	428-533	542 20
				Q4VYC8.1 nodulation-signaling pathway 1 protein (Nsp1) [Medicago truncatula]	9e-35	73	444-549	554 19
ERF1	AGCL1186Contig1 ^c	FQ340859	956	BAG50053.1 transcription factor AP2-EREBP [Lotus japonicus]	1e-44	53	7-210	227 90
Cyp2 (cysteine proteinase)	AG-J07f_008_O08 ^a	FQ355738	336 ^b	AAA50755.1 cysteine proteinase [Alnus glutinosa]	4e-23	80	280-339	340 18
				BAF56428.1 cysteine proteinase (Cyp2) [Lotus japonicus]	5e-23	78	282-341	342 18
Cyp2/4 (cysteine proteinase)	AGCL1977Contig1 ^{a,c}	FQ357148	1277	AAA50755.1 cysteine proteinase [Alnus glutinosa]	5e-148	77	27-339	340 92
				BAF56428.1 cysteine proteinase (Cyp2) [Lotus japonicus]	6e-139	71	28-341	342 92
				BAF56430.1 cysteine proteinase (Cyp4) [Lotus japonicus]	2e-138	72	28-340	341 92
HMGR	AGCL2689Contig1 ^c	FQ342702	419 ^b	ABY20976.1 3-hydroxy-3-methylglutaryl coenzyme A reductase 5 [Medicago truncatula]	5e-23	81	513-583	583 12
RALFL1	AG-N01f_013_P10	FQ331030	627 ^b	MtC90970_GC ^d MtRALFL1 [Medicago truncatula]*	2e-32*	59*	30-140*	146 76

Reference	FC Nod/root		Comparison with reported Legume homolog expression in nodules vs uninoculated roots	Cg Homolog Clone name
	Array	qPCR		
Lohmann et al. 2010 Mol Plant-Microbe Interact 23: 510-521 Lohmann et al. 2010 Mol Plant-Microbe Interact 23: 510-521 Radutoiu et al. 2003 Nature 425: 585-592	0.7	ND	no obvious expression change in 4-w-old nodules no obvious expression change in 4-w-old nodules repressed in 4-w-old nodules	CG-J04f_005_A06
Lefebvre et al. 2010 PNAS 107 2343-2348	9.4	ND	highly induced in nodules	CGCL460Contig1
Gherbi et al. 2008 PNAS 105:4928-4932 Markmann et al. 2008 Plos Biol 6: e68 Endre et al. 2002 Nature 417: 962-966; Bersould et al. 2005 Mol Plant-Microbe Interact 18: 869-876 Stracke et al. 2002 Nature 417: 959-962; Capoen et al. 2005 PNAS 102:10369-103374	0.8	ND	no clear induction in nodules at 14-15 dpi no clear induction in nodules at 14-15 dpi	
Trichine et al. 2006 Nature 44: 1153-1156 Lévy et al. 2004 Science 303 1361-1364; Mitra et al. 2004 PNAS 101:10217-10222	1.1	ND	minor induction in nodules at 12 dpi	CG-N02f_015_D03
Arrighi et al. 2008 PNAS 105: 9817-9822	17.9	44.6	60-fold induction in 10-d-old nodules	
Asamizu et al. 2008 Plant Physiol 147:2030-2040 Asamizu et al. 2008 Plant Physiol 147:2030-2040 Combier et al. 2008 Gen Dev 22: 1549-1559	14.9	9.5	5-fold repression in nodules at 12 dpi 12.2-fold induction in nodules at 12 dpi expression nodule specific and maximal in young developing nodules	CG-R02f_031_L10 / CG-R02f_025_B
Heckmann et al. 2006 Plant Physiol 142: 1739-1750 Smit et al. 2005 Science 308: 1789-1791	1.9	ND	slight induction in 10-d-old nodules	
Asamizu et al. 2008 Plant Physiol 147:2030-2040	0.8	ND	2-fold repression in nodules at 12 dpi	
Deguchi et al. 2007 DNA Research 14: 117-133; Manthey et al. 2004 Mol Plant-Microbe Interact 17 1063-1077	57.7	ND	increased expression in nodule	CGCL3220Contig1
Deguchi et al. 2007 DNA Research 14: 117-133; Manthey et al. 2004 Mol Plant-Microbe Interact 17 1063-1077 Deguchi et al. 2007 DNA Research 14: 117-133; Manthey et al. 2004 Mol Plant-Microbe Interact 17 1063-1077	344.5	ND	increased expression in nodule increased expression in nodule	
Kevei et al. 2007 Plant Cell 19: 3974-3989	0.5	ND	decreased expression in nodules	
Combier et al. 2008 Mol Plant-Microbe Interact 21 1118-1127	1.6	ND	weak, transient 1.4-fold induction in nodules at 4 dpi, followed by 3-fold repr	CG-N02f_001_L05