



## Table: List of known genes containing a T-DNA insert

The table below lists genes with high homology to *Brachypodium* tagged genes. This informs on the likely function of the tagged *Brachypodium* genes. Homology was assessed using BLAST search routine against sequences available in online databases (e.g. GenBank, EMBL).

An additional list of [putative orthologues](#) (predicted by EnsemblPlants) to *Brachypodium* tagged genes is also available.

T<sub>1</sub> seeds are available from all T-DNA insertion lines (genotype Bd21). Validation of T-DNA insertions and T<sub>2</sub> seed production are ongoing. T<sub>1</sub> and/or T<sub>2</sub> seeds are available from all T-DNA insertion lines (genotype Bd21) and can be [requested online](#).

### Table information:

- E-value: Level of homology (BLASTn) of *Brachypodium* tagged gene with genes with an identified function in GenBank
- Gene LINK provides access to individual *Brachypodium* gene information from EnsemblPlants (<http://plants.ensembl.org>)
- Bd: *Brachypodium* chromosome number
- Genic region: +/- (plus/minus strand); 5primePro (-1,500..-500 nt upstream of CDS); 5prime (-500..0 nt upstream of CDS); 3prime (0..+500 nt downstream of CDS); near genic (near the -1,500:CDS:+500 genic region); n/a (not a genic region)
- T-DNA line number: lines [in blue](#) have already been distributed to the community
- FST: Flanking Sequence Tag characterizing the T-DNA insertion
- Border: LB / RB indicates the position of the FST relative to the T-DNA insertion
- Valid: V indicates that the T-DNA insertion has been validated
- Loci: number of independent T-DNA loci detected per plant line

Genes with high homology to <i>Brachypodium</i> tagged genes (BLAST)			T-DNA insertion								T-DNA plant line			
gene	species	e-value	Bd	location	Brachy gene	gene LINK	genic region	FST Number	border	Valid.	T-DNA line number	release date	seeds	loci
<b>A</b>														
ABA responsive element binding factor 3 - ABF3	Hordeum vulgare	2.E-07	Bd2	52286040	Bradi2g53060	<a href="#">predicted gene</a>	- 5prime	JIC00268_319	RB		BdAA319	Oct. 2008	T2	2
actin-related protein 2 - ARP2	Arabidopsis thaliana	4.E-25	Scaffold 16	8411	Bradi0016s00	<a href="#">predicted gene</a>	+ intron	JIC00147_183	RB	V	BdAA183	Apr. 2008	T2	1
AGAMOUS-like protein	Zea mays	2.E-20	Bd2	32924218	Bradi2g32910	<a href="#">predicted gene</a>	+ intron	JIC00316_382	LB		BdAA382	Apr. 2008	T2	1
alpha-glucosidase - Agl2	Hordeum vulgare	6.E-04	Bd2	1403716	Bradi2g02070	<a href="#">predicted gene</a>	+ exon	JIC00892_1216	LB		<a href="#">BdAA1216</a>	Jun. 2009	T2	2
alpha-L-fucosidase 2 precursor	Zea mays	5.E-16	Bd2	10673797	Bradi2g12340	<a href="#">predicted gene</a>	- intron	JIC00901_1236	LB		<a href="#">BdAA1236</a>	Jun. 2009	T2	2
aquaporin gene	Triticum aestivum	3.E-59	Bd4	41781167	Bradi4g36600	<a href="#">predicted gene</a>	+ intron	JIC00210_235	RB		BdAA235	Apr. 2008	T2	1
<b>B</b>														



beta-carotene hydroxylase	Zea mays	4.E-10	Bd1	73314951	Bradi1g76870	<a href="#">predicted gene</a>	+ exon	JIC00339_418	RB		BdAA418	Apr. 2008	T2	1
<b>C</b>														
CatA gene for catalase	Oryza sativa	2.E-74	Bd3	928769	Bradi3g01470	<a href="#">predicted gene</a>	+ exon	JIC00867_1181	LB	V	BdAA1181	Dec. 2008	T2	1
chloroplast thylakoidal processing peptidase	Oryza sativa	3.E-36	Bd4	37670629	Bradi4g31930	<a href="#">predicted gene</a>	- intron	JIC00053_69	LB		BdAA69	Apr. 2008	T2	1
cytochrome c oxidase copper chaperone	Zea mays	5.E-47	Bd3	54581630	Bradi3g54010	<a href="#">predicted gene</a>	- 5prime	JIC00099_115	RB	v	BdAA115	Apr. 2008	T2	2
cytochrome oxidase subunit I - coxI	Oryza sativa	1.E-09	Bd1	52956872	Bradi1g54600	<a href="#">predicted gene</a>	+ intron	JIC00042_60	LB		BdAA60	Apr. 2008	T2	1
<b>D</b>														
dof166 gene for dof zinc finger protein	Hordeum vulgare	1.E-41	Bd3	26300115	Bradi3g25670	<a href="#">predicted gene</a>	+ exon	JIC00857_1165	RB	V	BdAA1165	Dec. 2008	T2	2
dTDP-glucose 4-6-dehydratase	Saccharum sp.	8.E-38	Bd2	53327898	Bradi2g54380	<a href="#">predicted gene</a>	+ exon	JIC00381_460	RB	V	BdAA460	Apr. 2008	T2	1
<b>E</b>														
ENOD40 gene	Lolium perenne	1.E-124	Bd5	18564252	BrachyEST	n/a	n/a	JIC00225_255	RB	V	BdAA255	Apr. 2008	T2	1
esterase/lipase/thioesterase family protein	Hordeum vulgare	1.E-27	Bd4	40350923	Bradi4g34850	<a href="#">predicted gene</a>	- exon	JIC00214_238	RB		BdAA238	Apr. 2008	T2	1
eukaryotic initiation factor 4A - eIF4A-1	Oryza sativa	1.E-105	Bd1	29787361	Bradi1g34170	<a href="#">predicted gene</a>	- intron	JIC00100_115	LB	v	BdAA115	Oct. 2008	T2	2
extensin similar	Oryza sativa	1.E-46	Bd1	3798165	Bradi1g05600	<a href="#">predicted gene</a>	+ exon	JIC00904_1238	LB	V	BdAA1238	Jun. 2009	T2	1
extra-large G-protein - XLG	Arabidopsis	1.E-07	Bd1	48871131	Bradi1g50230	<a href="#">predicted gene</a>	+ exon	JIC00129_163	LB		BdAA163	Apr. 2008	T2	1
<b>F</b>														
ferredoxin-thioredoxin reductase - FTR	Zea mays	2.E-45	Bd3	51045226	Bradi3g49790	<a href="#">predicted gene</a>	- 3prime	JIC00079_88	RB		BdAA88	Nov. 2009	T2	1
Ferric reductase	Nicotiana sp.	7.E-07	Bd5	22154800	Bradi5g19140	<a href="#">predicted gene</a>	+ 3prime	JIC00001_1	RB	V	BdAA1	Apr. 2008	T2	1
fiber protein Fb14, similar	Zea mays	5.E-56	Bd3	46563268	Bradi3g44590	<a href="#">predicted gene</a>	+ 5prime	JIC00445_564	RB	V	BdAA564	Dec. 2008	T2	1
<b>G</b>														
galactosyltransferase	Hordeum vulgare	4.E-75	Bd2	22499165	Bradi2g24690	<a href="#">predicted gene</a>	+ intron	JIC00311_378	LB	V	BdAA378	Apr. 2008	T2	1
GTP-binding protein - gmr2	Glycine max	7.E-59	Bd3	42934956	Bradi3g40850	<a href="#">predicted gene</a>	+ 5prime	JIC00779_1062	LB		BdAA1062	Jun. 2009	T2	1
<b>H</b>														
hemoglobin 2 - hb2 gene	Oryza sativa	8.E-26	Bd1	67776285	Bradi1g69320	<a href="#">predicted gene</a>	+ 5primePro	JIC00953_1345	RB		BdAA1345	Jun. 2009	T2	2
3-hydroxyacid dehydrogenase, similar	Glycine max	1.E-09	Bd2	41957420	Bradi2g41630	<a href="#">predicted gene</a>	- intron	JIC00713_957	RB		BdAA957	Dec. 2008	T2	2



## L

LAs17 binding protein-like	Ananas comosus	3.E-38	Bd1	16786760	Bradi1g20900	<a href="#">predicted gene</a>	+ intron	JIC00696_935	LB	V	BdAA935	Oct. 2008	T2	1
LIM transcription factor homolog - lim1	Zea mays	2.E-25	Bd4	5461782	Bradi4G06510	n/a	near genic	JIC00676_913	RB		BdAA913	Dec. 2008	T2	2
lipoxygenase 1 gene	Hordeum vulgare	1.E-106	Bd1	8687323	Bradi1g11680	<a href="#">predicted gene</a>	- exon	JIC00485_615	LB		BdAA615	Dec. 2008	T2	1
lipoxygenase isoenzyme 1 - Lox:Hv1	Hordeum vulgare	1.E-09	Bd2	32175713	Bradi2G32190	n/a	near genic	JIC00384_466	RB	V	BdAA466	Apr. 2008	T2	1

## M

Mannase, endo-1,4-beta-mannosidase protein 2	Prunus persica	3.E-21	Bd2	46223010	Bradi2g45790	<a href="#">predicted gene</a>	+ intron	JIC00710_954	LB		BdAA954	Oct. 2008	T2	2
mitochondrial carrier protein - RIM2	Glycine max	8.E-21	Bd1	64485746	Bradi1g65510	<a href="#">predicted gene</a>	- 3prime	JIC00475_599	LB	V	BdAA599	Apr. 2008	T2	2

## N

NAM protein	Oryza sativa	3.E-10	Bd5	18945036	Bradi5g15590	<a href="#">predicted gene</a>	+ 5primePro	JIC00172_197	RB		BdAA197	Apr. 2008	T2	1
NBS-LRR disease resistance protein-like gene	Lolium perenne	3.E-08	Bd4	39738057	not predicted	n/a	n/a	JIC00537_677	RB	V	BdAA677	Dec. 2008	T2	1
nodulation-induced gene MtN21	Sorghum bicolor	2.E-18	Bd3	21735317	Bradi3g22530	<a href="#">predicted gene</a>	+ exon	JIC00252_293	LB		BdAA293	Apr. 2008	T2	2
nuclear encoded chloroplastic glutathione reductase - HvGR1	Hordeum vulgare	7.E-59	Bd1	71446651	Bradi1g74180	<a href="#">predicted gene</a>	- intron	JIC00370_451	LB		BdAA451	Jun. 2009	T2	2
nuclear encoded mitochondrial import inner membrane translocase subunit - TIM14	Zea mays	3.E-21	Bd1	4887188	Bradi1g06980	<a href="#">predicted gene</a>	- intron	JIC00744_992	LB		BdAA992	Jun. 2009	T2	1

## O

oligopeptidase A similar	Arabidopsis thaliana	8.E-17	Bd3	59435424	Bradi3g60550	<a href="#">predicted gene</a>	- exon	JIC00610_771	RB		BdAA771	Dec. 2008	T2	1
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## P

pdr1 gene for PDR-like ABC transporter	Oryza sativa	2.E-19	Bd3	43780194	Bradi3g41990	<a href="#">predicted gene</a>	+ intron	JIC00134_170	RB	V	BdAA170	Apr. 2008	T2	1
Pib gene, similar	Oryza sativa	1.E-21	Bd2	39704448	Bradi2g39520	<a href="#">predicted gene</a>	+ exon	JIC00662_839	RB	V	BdAA839	Dec. 2008	T2	1
PibH8	Oryza sativa	7.E-09	Bd3	15466311	not predicted	n/a	n/a	JIC00033_48	LB	V	BdAA48	Apr. 2008	T2	1
pollen extensin-like protein - Pex2	Zea mays	2.E-44	Bd2	11137704	Bradi2g12760	<a href="#">predicted gene</a>	- exon	JIC00815_1127	LB		BdAA1127	Dec. 2008	T2	1
proline rich extension-like receptor kinase-1	Oryza sativa	1.E-22	Bd3	4548905	Bradi3g06290	<a href="#">predicted gene</a>	- 3prime	JIC00545_690	RB		BdAA690	Oct. 2008	T2	2
26S proteasome regulatory particle triple-A ATPase subunit1 - OsRPT1	Oryza sativa	1.E-27	Bd1	45321944	Bradi1g46760	<a href="#">predicted gene</a>	- 5prime	JIC00215_240	RB		BdAA240	Apr. 2008	T2	1



Protein kinase	Zea mays	2.E-05	Bd1	1239081	Bradi1g01840	<a href="#">predicted gene</a>	- intron	JIC00154_185	RB	V	BdAA185	Apr. 2008	T2	1
PTR2 family peptide transporter - At2g40460	Arabidopsis thaliana	4.E-15	Bd2	29996379	Bradi2G30380	<a href="#">predicted gene</a>	+ intron	JIC00589_741	LB	V	BdAA741	Apr. 2008	T2	1
<b>R</b>														
ras-related protein - ARA-4	Zea mays	1.E-94	Bd3	42934956	Bradi3g40850	<a href="#">predicted gene</a>	+ 5prime	JIC00779_1062	LB		BdAA1062	Jun. 2009	T2	1
RNA polymerase - Rpb2	Prunus persica	2.E-24	Bd5	25445691	Bradi5G23540	<a href="#">predicted gene</a>	+ exon	JIC00833_1138	LB	V	BdAA1138	Jun. 2009	T2	2
Roc4 mRNA for GL2-type homeodomain protein	Oryza sativa	1.E-06	Bd5	21825420	Bradi5G18720	<a href="#">predicted gene</a>	- 5prime	JIC00850_1157	LB	V	BdAA1157	Dec. 2008	T2	2
<b>S</b>														
senescence-associated protein - DIN1	Zea mays	3.E-08	Bd4	2681632	Bradi4g03320	<a href="#">predicted gene</a>	- 5prime	JIC00792_1099	LB		<a href="#">BdAA1099</a>	Jun. 2009	T2	1
serine carboxypeptidase II-1	Hordeum vulgare	8.E-40	Bd2	34873	Bradi2G00260	<a href="#">predicted gene</a>	- exon	JIC00477_602	RB	V	BdAA602	Apr. 2008	T2	1
SMC4 protein	Oryza sativa	1.E-17	Bd2	18448100	Bradi2g21080	<a href="#">predicted gene</a>	- intron	JIC00596_755	RB	V	BdAA755	Apr. 2008	T2	1
splicing factor	Saccharum sp.	5.E-81	Bd2	22499165	Bradi2g24690	<a href="#">predicted gene</a>	+ intron	JIC00311_378	LB	V	BdAA378	Apr. 2008	T2	1
systemin receptor - SR160 precursor	Zea mays	4.E-46	Bd1	3798165	Bradi1g05600	<a href="#">predicted gene</a>	+ exon	JIC00904_1238	LB	V	BdAA1238	Jun. 2009	T2	1
<b>T</b>														
TAA1b gene for fatty acyl coA reductase	Triticum aestivum	2.E-10	Bd4	43390721	not predicted	n/a	n/a	JIC00356_438	LB		BdAA438	Apr. 2008	T2	1
thioredoxin-like 5	Oryza sativa	3.E-28	Bd3	57082048	Bradi3g57470	<a href="#">predicted gene</a>	- exon	JIC00734_984	LB		BdAA984	Jun. 2009	T1	2
transketolase, chloroplast precursor	Glycine max	8.E-07	Bd5	9635695	Bradi5g07190	<a href="#">predicted gene</a>	- intron	JIC00581_731	RB	V	BdAA731	Apr. 2008	T2	1
<b>U</b>														
ubiquitin - mub2	Hordeum vulgare	3.E-14	Bd3	31784140	Bradi3g29730	<a href="#">predicted gene</a>	- 5prime	JIC00814_1125	LB		BdAA1125	Dec. 2008	T2	1
UDP-N-acetylglucosamine transferase subunit - alg13	Zea mays	1.E-48	Bd3	44511468	Bradi3g43170	<a href="#">predicted gene</a>	+ intron	JIC00924_1268	RB	V	BdAA1268	Jun. 2009	T2	1
uroporphyrinogen III synthase - urosIII	Hordeum vulgare	2.E-12	Bd1	69971810	Bradi1g72170	n/a	near genic	JIC00801_1113	RB	V	BdAA1113	Dec. 2008	T2	1
<b>Z</b>														
zinc finger family protein	Prunus persica	7.E-07	Bd2	22030658	Bradi2g24190	<a href="#">predicted gene</a>	- exon	JIC00825_1135	RB		BdAA1135	Dec. 2008	T2	2