**Table S3.** List of genes mentioned in the main text or figures of this paper.

| **Name** | **Bd21-3 accession** | **Bradi accession** | **Related gene in other species** | **Relevant literature** |
| --- | --- | --- | --- | --- |
| *2cRR* | BdiBd21-3.3G0655900 | Bradi3g49440 | N/A | This paper |
| *BdAPL* | BdiBd21-3.3G0071200 | Bradi3g05500 | *AtAPL* | [(Bonke et al. 2003)](https://paperpile.com/c/axOOUf/LzZQ) |
| *BdAS1* | BdiBd21-3.3G0192400 | Bradi4g03970 | *AtAS1, ZmRS2* | [(Byrne et al. 2000; Tsiantis et al. 1999)](https://paperpile.com/c/axOOUf/DQzH+z3WE) |
| *BdCLV1* | BdiBd21-3.1G0402200 | Bradi1g30160 | *AtCLV1, HvCLV1* (HORVU.MOREX.r3.7HG0747230)*, OsFON1, ZmTD1* | [(Vardanega et al. 2025; Suzaki et al. 2004; Clark et al. 1993; Demesa-Arevalo et al. 2025; Bommert et al. 2005)](https://paperpile.com/c/axOOUf/BQCE+5i2P+KwRM+VLdf+yQ4P) |
| *BdCRC* | BdiBd21-3.1G0942300 | Bradi1g69900 | *HvCRC* (HORVU.MOREX.r3.4HG0396510) | [(Bowman and Smyth 1999; Yamaguchi et al. 2004; Demesa-Arevalo et al. 2025)](https://paperpile.com/c/axOOUf/Fh9N+0ORi+VLdf) |
| *BdCST1* | BdiBd21-3.2G0326500 | Bradi2g24850 | *ZmCST1* | [(Wang et al. 2019)](https://paperpile.com/c/axOOUf/U9F3) |
| *BdEPF2-1* | BdiBd21-3.5G0153600 | Bradi5g12220 | *AtEPF2, TaEPF2* | [(Jangra et al. 2021; Hara et al. 2009; Hunt and Gray 2009)](https://paperpile.com/c/axOOUf/T6f5+nxPF+HP0y) |
| *BdEPF2-2* | BdiBd21-3.5G0306100 | Bradi5g23357 | *AtEPF2, TaEPF1* | [(Jangra et al. 2021; Hara et al. 2009; Hunt and Gray 2009)](https://paperpile.com/c/axOOUf/T6f5+nxPF+HP0y) |
| *BdERECTA* | BdiBd21-3.1G0609800 | Bradi1g46450 | *AtERECTA* | [(Shpak et al. 2005; Herrmann and Torii 2021; Chua and Lau 2024)](https://paperpile.com/c/axOOUf/Zws5+CkcZ+jJs1) |
| *BdERL1* | BdiBd21-3.1G0662500 | Bradi1g49950 | *AtERL1* | [(Shpak et al. 2005; Herrmann and Torii 2021; Chua and Lau 2024)](https://paperpile.com/c/axOOUf/Zws5+CkcZ+jJs1) |
| *BdFAMA* | BdiBd21-3.2G0300000 | Bradi2g22810 | *AtFAMA, OsFAMA* | [(McKown et al. 2023; Ohashi-Ito and Bergmann 2006; Liu et al. 2009; Wu et al. 2019)](https://paperpile.com/c/axOOUf/2LlD+J9wi+Elhl+p85r) |
| *BdFCP1* | BdiBd21-3.5G0168500 | Bradi5g13241 | *OsFCP1, HvFCP1* (HORVU.MOREX.r3.2HG0174890) | [(Ohmori et al. 2013; Vardanega et al. 2025)](https://paperpile.com/c/axOOUf/2tSk+BQCE) |
| *BdFEA2* | BdiBd21-3.2G0427700 | Bradi2g34337 | *ZmFEA2, AtCLV2* | [(Je et al. 2018)](https://paperpile.com/c/axOOUf/ERyo) |
| *BdFEA3* | BdiBd21-3.2G0010000 | Bradi2g00920 | *ZmFEA3, HvFEA3* | [(Demesa-Arevalo et al. 2025; Je et al. 2016)](https://paperpile.com/c/axOOUf/VLdf+Vwka) |
| *BdFEA4* | BdiBd21-3.1G0571300 | Bradi1g43900 | *ZmFEA4* | [(Pautler et al. 2015)](https://paperpile.com/c/axOOUf/Fand) |
| *BdGELP1* | BdiBd21-3.2G0049500 | Bradi2g03807 | *ZmGELP1* | [(Sun et al. 2022)](https://paperpile.com/c/axOOUf/9F8d) |
| *BdGRAS32* | BdiBd21-3.1G0657800 | Bradi1g49630 | *OsDLT/GRAS-32* | [(Xie et al. 2019)](https://paperpile.com/c/axOOUf/mPDE) |
| *BdHDG2-like* | BdiBd21-3.3G0192600 | Bradi3g14500 | *AtHDG2* | [(Nakamura et al. 2006)](https://paperpile.com/c/axOOUf/Dtdo) |
| *BdICE1* | BdiBd21-3.4G0254800 | Bradi4g17460 | *AtICE1, OsICE1, ZmICEb* | [(Kanaoka et al. 2008; Raissig et al. 2016; Grimault et al. 2015)](https://paperpile.com/c/axOOUf/Qg0n+lAo2+bqlr) |
| *BdKN1* | BdiBd21-3.1G0135700 | Bradi1g10047 | *ZmKN1* | [(Smith et al. 1992)](https://paperpile.com/c/axOOUf/3jM0) |
| *BdKNAT1-like* | BdiBd21-3.1G0773000 | Bradi1g57607 | *AtKNAT1* | [(Lincoln et al. 1994)](https://paperpile.com/c/axOOUf/biuj) |
| *BdLHCA6* | BdiBd21-3.4G0439300 | Bradi4g31257 | *AtLHCA6* | [(Jansson 1999)](https://paperpile.com/c/axOOUf/Jscg) |
| *BdMKK4/5-like1* | BdiBd21-3.1G0616400 | Bradi1g46880 | *AtMKK4/5* | [(Wang et al. 2007)](https://paperpile.com/c/axOOUf/XszQ) |
| *BdMKK4/5-like2* | BdiBd21-3.3G0709500 | Bradi3g53650 | *AtMKK4/5* | [(Wang et al. 2007)](https://paperpile.com/c/axOOUf/XszQ) |
| *BdMPK3-like* | BdiBd21-3.1G0885800 | Bradi1g65810 | *AtMPK3* | [(Wang et al. 2007)](https://paperpile.com/c/axOOUf/XszQ) |
| *BdMPK6-like* | BdiBd21-3.1G0650300 | Bradi1g49100 | *AtMPK6* | [(Wang et al. 2007)](https://paperpile.com/c/axOOUf/XszQ) |
| *BdMUTE* | BdiBd21-3.1G0240400 | Bradi1g18400 | *AtMUTE, OsMUTE, ZmMUTE/BZU2* | [(Raissig et al. 2017; Spiegelhalder et al. 2024; Wu et al. 2019; Wang et al. 2019; Pillitteri and Torii 2007)](https://paperpile.com/c/axOOUf/wPSm+qAXS+p85r+fJeq+BNIv) |
| *BdMYB60-like* | BdiBd21-3.4G0234500 | Bradi4g16290 | *AtMYB60* | [(Cominelli et al. 2005)](https://paperpile.com/c/axOOUf/MpyK) |
| *BdPAN1* | BdiBd21-3.3G0526300 | Bradi3g39910 | *ZmPAN1* | [(Cartwright et al. 2009; Zhang et al. 2022)](https://paperpile.com/c/axOOUf/HmIj+UlWZ) |
| *BdPAN2* | BdiBd21-3.1G0783500 | Bradi1g58260 | *ZmPAN2* | [(Zhang et al. 2012)](https://paperpile.com/c/axOOUf/KnT3) |
| *BdPDF1* | BdiBd21-3.2G0082000 | Bradi2g06300 | *AtPDF1* | [(Abe et al. 1999)](https://paperpile.com/c/axOOUf/7KjG) |
| *BdPDF2-like* | BdiBd21-3.3G0204900 | Bradi3g15327 | *AtPDF2* | [(Abe et al. 2003)](https://paperpile.com/c/axOOUf/oa9Y) |
| *BdPIN1a* | BdiBd21-3.1G0588300 | Bradi1g45020 | *HvPIN1a* (HORVU.MOREX.r3.7HG0666880) | [(O'Connor et al. 2014; Fusi et al. 2024)](https://paperpile.com/c/axOOUf/97xX+rXxk) |
| *BdPIN1b* | BdiBd21-3.3G0783600 | Bradi3g59520 | *HvPIN1/HvPIN1b* (HORVU.MOREX.r3.6HG0615550) | [(O'Connor et al. 2014; Kirschner et al. 2018; Fusi et al. 2024)](https://paperpile.com/c/axOOUf/97xX+zIA0+rXxk) |
| *BdPME53-like* | BdiBd21-3.2G0255500 | Bradi2g19420 | *AtPME53* | [(Wu et al. 2022)](https://paperpile.com/c/axOOUf/DnAM) |
| *BdSCAP1* | BdiBd21-3.1G0206300 | Bradi1g15420 | *AtSCAP1* | [(Negi et al. 2013)](https://paperpile.com/c/axOOUf/0pYf) |
| *BdSCRM2* | BdiBd21-3.2G0762000 | Bradi2g59497 | *OsSCRM2* | [(Raissig et al. 2016; Wu et al. 2019)](https://paperpile.com/c/axOOUf/lAo2+p85r) |
| *BdSDD1-like* | BdiBd21-3.1G1009000 | Bradi1g75550 | *AtSDD1* | [(Von Groll et al. 2002)](https://paperpile.com/c/axOOUf/QOeR) |
| *BdSERK1/2-like1* | BdiBd21-3.5G0153700 | Bradi5g12227 | *AtSERK1/2* | [(Meng et al. 2015)](https://paperpile.com/c/axOOUf/cXbb) |
| *BdSERK1/2-like2* | BdiBd21-3.3G0620800 | Bradi3g46747 | *AtSERK1/2* | [(Meng et al. 2015)](https://paperpile.com/c/axOOUf/cXbb) |
| *BdSERK1/2-like3* | BdiBd21-3.3G0209300 | Bradi3g15660 | *AtSERK1/2* | [(Meng et al. 2015)](https://paperpile.com/c/axOOUf/cXbb) |
| *BdSLAH2* | BdiBd21-3.2G0203400 | Bradi2g15500 | *AtSLAH2* | [(Maierhofer et al. 2014)](https://paperpile.com/c/axOOUf/AZtl) |
| *BdSLP1-like1* | BdiBd21-3.3G0292100 | Bradi3g21000 | *SbSLP1* | [(Kumar et al. 2020)](https://paperpile.com/c/axOOUf/c0r0) |
| *BdSLP1-like2* | BdiBd21-3.3G0292000 | Bradi3g20980 | *SbSLP1* | [(Kumar et al. 2020)](https://paperpile.com/c/axOOUf/c0r0) |
| *BdSLP1-like3* | BdiBd21-3.3G0292700 | Bradi3g21030 | *SbSLP1* | [(Kumar et al. 2020)](https://paperpile.com/c/axOOUf/c0r0) |
| *BdSLP1-like4* | BdiBd21-3.5G0061500 | Bradi5g04630 | *SbSLP1* | [(Kumar et al. 2020)](https://paperpile.com/c/axOOUf/c0r0) |
| *BdSLP1-like5* | BdiBd21-3.1G0921800 | Bradi1g68400 | *SbSLP1* | [(Kumar et al. 2020)](https://paperpile.com/c/axOOUf/c0r0) |
| *BdSLP1-like6* | BdiBd21-3.1G0921700 | Bradi1g68390 | *SbSLP1* | [(Kumar et al. 2020)](https://paperpile.com/c/axOOUf/c0r0) |
| *BdSLP1-like7* | BdiBd21-3.3G0291900 | Bradi3g20970 | *SbSLP1* | [(Kumar et al. 2020)](https://paperpile.com/c/axOOUf/c0r0) |
| *BdSLP1-like8* | BdiBd21-3.3G0292200 | Bradi3g21010 | *SbSLP1* | [(Kumar et al. 2020)](https://paperpile.com/c/axOOUf/c0r0) |
| *BdSLP1-like9* | BdiBd21-3.1G0855400 | Bradi1g63370 | *SbSLP1* | [(Kumar et al. 2020)](https://paperpile.com/c/axOOUf/c0r0) |
| *BdSPCH1* | BdiBd21-3.1G0523400 | Bradi1g38650 | *AtSPCH, OsSPCH1* | [(Wu et al. 2019; Raissig et al. 2016; Pillitteri and Torii 2007)](https://paperpile.com/c/axOOUf/p85r+lAo2+BNIv) |
| *BdSPCH2* | BdiBd21-3.3G0131200 | Bradi3g09670 | *AtSPCH, OsSPCH2* | [(Liu et al. 2009; Wu et al. 2019; Raissig et al. 2016; Pillitteri and Torii 2007)](https://paperpile.com/c/axOOUf/Elhl+p85r+lAo2+BNIv) |
| *BdSPL10* | BdiBd21-3.1G0421000 | Bradi1g31390 | *OsSPL10, ZmSPL14* | [(Lan et al. 2019; Kong et al. 2024)](https://paperpile.com/c/axOOUf/RYmt+Lf01) |
| *BdSPL5* | BdiBd21-3.3G0074300 | Bradi3g05720 | *OsSPL5, ZmSPL10* | [(Xie et al. 2006; Kong et al. 2024)](https://paperpile.com/c/axOOUf/EPrc+Lf01) |
| *BdSTOMAGEN-1* | BdiBd21-3.2G0749400 | Bradi2g58540 | *AtSTOMAGEN, TaSTOMAGEN-1* | [(Sugano et al. 2010; Jangra et al. 2021)](https://paperpile.com/c/axOOUf/nYxB+T6f5) |
| *BdTCP4-like* | BdiBd21-3.2G0089600 | Bradi2g06890 | *AtTCP4* | [(Palatnik et al. 2003)](https://paperpile.com/c/axOOUf/jqA0) |
| *BdTMM* | BdiBd21-3.2G0561000 | Bradi2g43940 | *AtTMM* | [(Geisler et al. 1998)](https://paperpile.com/c/axOOUf/9TqN) |
| *BdTMO6-like* | BdiBd21-3.1G0348000 | Bradi1g26570 | *AtTMO6* | [(Schlereth et al. 2010)](https://paperpile.com/c/axOOUf/HjJR) |
| *BdTSO1* | BdiBd21-3.1G0741600 | Bradi1g55710 | *AtTSO1* | [(Simmons et al. 2019)](https://paperpile.com/c/axOOUf/ExFD) |
| *BdVND-like1* | BdiBd21-3.1G1023300 | Bradi1g76732 | *AtVNDs* | [(Lehmann and Schneider 2025)](https://paperpile.com/c/axOOUf/3bxr) |
| *BdVND-like2* | BdiBd21-3.5G0221500 | Bradi5g16917 | *AtVNDs* | [(Lehmann and Schneider 2025)](https://paperpile.com/c/axOOUf/3bxr) |
| *BdWOX3B* | BdiBd21-3.2G0477300 | Bradi2g37650 | *OsWOX3B, ZmWOX3A* | [(Angeles-Shim et al. 2012; Li et al. 2012; Kong et al. 2021; Kong et al. 2024)](https://paperpile.com/c/axOOUf/Twzx+ALRt+6FJx+Lf01) |
| *BdWOX4* | BdiBd21-3.5G0316500 | Bradi5g24080 | *OsWOX4* | [(Ohmori et al. 2013)](https://paperpile.com/c/axOOUf/2tSk) |
| *BdWOX9C-like1* | BdiBd21-3.2G0587500 | Bradi2g46055 | *AtWOX9* | [(Haecker et al. 2004)](https://paperpile.com/c/axOOUf/AMl3) |
| *BdXCP1-like* | BdiBd21-3.2G0501500 | Bradi2g39320 | *AtXCP1* | [(Funk et al. 2002)](https://paperpile.com/c/axOOUf/8e9W) |
| *BdYDA1* | BdiBd21-3.5G0238000 | Bradi5g18180 | *AtYDA, HvYDA1* | [(Bergmann et al. 2004; Liu et al. 2022; Abrash et al. 2018)](https://paperpile.com/c/axOOUf/fPIz+lV85+X0qi) |
| *BdYDA2* | BdiBd21-3.3G0680900 | Bradi3g51380 | *AtYDA, HvYDA2* | [(Bergmann et al. 2004; Liu et al. 2022; Abrash et al. 2018)](https://paperpile.com/c/axOOUf/fPIz+lV85+X0qi) |
| *DUF567* | BdiBd21-3.4G0612300 | Bradi4g44178 | N/A | This paper |
| *LRR kinase* | BdiBd21-3.2G0614100 | Bradi2g48000 | N/A | This paper |