Table S1. Flax genes presented in Figure 1: identification number in phytozome database (https://phytozome.jgi.doe.gov/pz/portal.html#), abbreviation, and FPKM values in analysed samples. CTR - control plants; FIB - isolated fibers, XYL - xylem tissue; PUL - pulling side of the the flax stem; OPP - opposite side of the flax stem, FPKM - Fragments per kilobase million

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Lus number in phytozome database | Best hit Arabidopsis gene | Abbreviation (according to Arabidopsis annotation, or to the references below \*,\*\*) | FPKM in analysed samples\*\*\* | | | | | |
|  |  |  | FIB\_CTR | FIB\_PUL | FIB\_OPP | XYL\_CTR | XYL\_PUL | XYL\_OPP |
| **Lus10017766** | AT2G26650 | **KT1 \_1** | **5** | **55** | **23** | 1 | 5 | 9 |
| **Lus10033052** | AT2G26650 | **KT1\_2** | **2** | **22** | **4** | 1 | 2 | 2 |
| **Lus10027553** | AT5G24030 | **SLAH3\_1** | **7** | **64** | **14** | 1 | 2 | 3 |
| **Lus10039312** | AT5G24030 | **SLAH3\_2** | **15** | **144** | **30** | 1 | 4 | 3 |
| **Lus10014606** | AT5G40780 | **LHT1\_1** | **3** | **88** | **12** | 1 | 4 | 3 |
| **Lus10032074** | AT5G40780 | **LHT1\_2** | **2** | **37** | **10** | 1 | 3 | 2 |
| **Lus10030975** | AT4G17970 | **ALMT12** | **30** | **249** | **43** | 4 | 9 | 10 |
| **Lus10006066** | AT1G22710 | **SUC1\_1** | **24** | **181** | **57** | 203 | 89 | 88 |
| **Lus10009428** | AT1G22710 | **SUC1\_2** | **32** | **121** | **61** | 418 | 363 | 305 |
| **Lus10018324** | AT2G35060 | **KUP** | **16** | **48** | **42** | 78 | 51 | 65 |
| **Lus10022611** | AT2G36830 | **TIP1-4\*** | **289** | **697** | **453** | 747 | 944 | 1082 |
| **Lus10021510** | AT2G36830 | **TIP1-3\*** | **268** | **677** | **486** | 546 | 686 | 823 |
| **Lus10025808** | AT3G16240 | **TIP2-3\*** | **236** | **497** | **323** | 826 | 986 | 1247 |
| **Lus10040399** | AT3G54820 | **PIP2-11\*** | **29** | **70** | **38** | 49 | 42 | 40 |
| **Lus10014840** | AT2G45960 | **PIP1-1\*** | **6** | **39** | **11** | 47 | 82 | 54 |
| **Lus10026504** | AT5G60660 | **PIP2-8\*** | **3** | **27** | **18** | 17 | 50 | 52 |
| **Lus10013839** | AT2G17270 | **PHT3** | **4** | **16** | **7** | **2** | **3** | **3** |
| **Lus10015687** | AT3G02850 | **SKOR** | **3** | **10** | **3** | **2** | **3** | **3** |
| **Lus10028634** | AT1G21460 | **SWEET1** | **1** | **6** | **1** | **1** | **1** | **1** |
| **Lus10039782** | AT2G26690 | **NRT1/PTR** | **31** | **150** | **84** | **31** | **35** | **41** |
| **Lus10028236** | AT5G49630 | **AAP6** | **2** | **4** | **2** | **1** | **1** | **1** |
| **Lus10018902** | AT4G32410 | **CESA1-A\*\*** | **4** | **26** | **16** | **29** | **38** | **36** |
| **Lus10028597** | AT4G32410 | **CESA1-B\*\*** | **5** | **24** | **15** | **20** | **27** | **27** |
| **Lus10007538** | AT5G05170 | **CESA-3B\*\*** | **20** | **124** | **45** | **49** | **70** | **64** |
| **Lus10012198** | AT5G05170 | **CESA-3C\*\*** | **17** | **80** | **40** | **35** | **46** | **43** |
| **Lus10008226** | AT5G44030 | **CESA4\*\*** | **18** | **85** | **30** | **532** | **608** | **601** |
| **Lus10006161** | AT5G64740 | **CESA6-A\*\*** | **13** | **29** | **17** | **23** | **27** | **25** |
| **Lus10041063** | AT5G64740 | **CESA6-B\*\*** | **12** | **31** | **18** | **30** | **31** | **28** |
| **Lus10003526** | AT5G64740 | **CESA6-C\*\*** | **2** | **7** | **3** | **7** | **10** | **9** |
| **Lus10002939** | AT5G64740 | **CESA6-D\*\*** | **1** | **5** | **2** | **2** | **3** | **2** |
| **Lus10043485** | AT5G17420 | **CESA7-A\*\*** | **2** | **8** | **3** | **67** | **60** | **60** |
| **Lus10043486** | AT5G17420 | **CESA7-B\*\*** | **11** | **28** | **12** | **108** | **90** | **94** |
| **Lus10007296** | AT4G18780 | **CESA8\_A\*\*** | **9** | **38** | **17** | **290** | **247** | **242** |
| **Lus10029245** | AT4G18780 | **CESA8\_B\*\*** | **11** | **88** | **28** | **218** | **193** | **183** |
| **Lus10037164** | AT1G69530 | **expansin A1\_1** | **15** | **134** | **8** | **20** | **21** | **13** |
| **Lus10036763** | AT1G69530 | **expansin A1\_2** | **12** | **131** | **10** | **17** | **40** | **27** |
| **Lus10009917** | AT2G40610 | **expansin A8** | **4** | **83** | **6** | **0** | **2** | **1** |
| **Lus10035131** | AT5G15630 | **COBRA-like\_1** | **16** | **193** | **29** | **5** | **43** | **18** |
| **Lus10031972** | AT5G15630 | **COBRA-like\_2** | **22** | **167** | **30** | **9** | **51** | **30** |
| **Lus10007986** | AT5G60920 | **COBRA-like\_3** | **20** | **86** | **22** | **28** | **53** | **36** |
| **Lus10021144** | AT5G60920 | **COBRA-like\_4** | **15** | **73** | **20** | **26** | **54** | **40** |
| **Lus10007584** | AT5G49720 | **KOR1\_1** | **15** | **51** | **32** | **136** | **139** | **146** |
| **Lus10007585** | AT5G49720 | **KOR1\_2** | **9** | **32** | **20** | **140** | **155** | **148** |
| **Lus10016872** | AT3G16920 | **CTL1\*\*** | **199** | **560** | **227** | **2024** | **1407** | **1382** |
| **Lus10037737** | AT3G16920 | **CTL2\*\*** | **69** | **190** | **96** | **1500** | **1132** | **1063** |

\*Shivaraj S, Deshmukh RK, Rai R, Bélanger R, Agrawal PK, Dash PK. Genome-wide identification, characterization, and expression profile of aquaporin gene family in flax (Linum usitatissimum). Sci. Rep. 2017;7:46137 10.1038/srep46137

\*\*Mokshina N, Gorshkova T, Deyholos MK Chitinase-like (CTL) and cellulose synthase (CESA) gene expression in gelatinous-type cellulosic walls of flax (Linum usitatissimum L.) bast fibers. PLoS ONE 2014;9:e97949

\*\*\*data for FIB\_CTR, FIB\_PUL and FIB\_OPP were published in Gorshkov O, Mokshina N, Ibragimova N, Ageeva M, Gogoleva N, Gorshkova T. Phloem fibres as motors of gravitropic behaviour of flax plants: level of transcriptome. Funct Plant Biol 2017; 45:203-14.