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Characterization and localization of the sucrose transporter FeSUT1 in the phloem of *Fraxinus excelsior*.

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Supplementary data

1 CACTCTTTTCATGTAATAATTTACTGCATATACATATAGTGAGAGAAATCTATACATACACAATTTCTAAAGTGAGAGAGTG 80

81 AAGAGTTAAATTATATATCCATGGAGGTTGATGGAAGCAAATTGAGTACTATTGTGCCAGAACCTCCACTTACGCCACCG 160

1 M E V D G S K L S T I V P E P P L T P P 20

161 CAAGAGCCGCTGAGAAAACTCATTCCGGTGGCGGCCATAGCAGCGGGGTGCAATTCGGGTGGGCCCTTCAGCTCTCCTT 240

21 Q E P L R K L I P V A A I A A G V Q F G W A L Q L S L 47

241 GTTGACTCCGTACGTGCAGCTTCTGGGTATTTCCCATACCTGGGCTGCCTTCATCTGGCTGTGTGGGCCAGTCTCCGGCT 320

48 L T P Y V Q L L G I P H T W A A F I W L C G P V S G L 74

321 TGTTTCGTGCAGCCGATTGTTGGCTACTACAGTGACAATTGCTCCTCCCGCTTTGGGCGGCGCCGCCCTTTATCGCCGCC 400

75 F V Q P I V G Y Y S D N C S S R F G R R R P F I A A 100

401 GGTGCGCCTTGTCTGCTGTCGCGGTTTTCTCAATTGGATTTCGCCGGATATTGGTCATGCCTCCGGGGACCCCTGGG 480

101 G A A L V A V A V F L I G F A A D I G H A S G D P L G 127

481 CAACGACGGCAAGACGGCGAAGCCCGTCCATTGCTGTGTTGTGCTCGGATTTTGGATCCTTGACGTGGCCAACAACA 560

128 N D G K T A K P R A I A V F V V G F W I L D V A N N M 154

561 TGTTACAGGGACCTTGCAGAGCCCTGTGGCTGATCTCTCTGGTGGAAATGCTCAGAAAAATGAGGACTGCAATGCCTTT 640

155 L Q G P C R A L L A D L S G G N A Q K M R T A N A F 180

641 TTTTCTTTTTCATGGCGGTGGGAGCGTGCCTGTTATGCAGCTGGATCATACTCACTTGTCAAATATTTCCCTTT 720

181 F S F F M A V G S V L G Y A A G S Y T H L F K I F P F 207

721 TACCAAAACAAAAGCCTGTGATGTGATTTGTGCAATCTCAAGAGCTGTTTTTCTCTCAATATTTCTTCTTGTGACTC 800

208 T K T K A C D V Y C A N L K S C F F L S I F L L L T L 234

801 TAACAATATTGGCTTTGACTATTGTGCGTGAAACGGCCTTTGTCCCTTACAGGCGGAGCCACCAGAAAAATAGGTCAT 880

235 T I L A L T I V R E T A F V P S Q A E P P E N I G H 260

881 GGGTGGTTAAGAAGAGGAAAATACCAGTTTTGGGGGAGTTATTTGGTGCATTGAAGGCTTACCTAGGCCAATGAGGGC 960

261 G V V K K R K I P V L G E L F G A L K G L P R P M R A 287

961 TTTGCTCTTGGTGACTTGTAAATTGGATTGCTTGGTCCCATTTCTTGTTCGACACTGATTGGATGGGAAGGAGG 1040

288 L L L V T C L N W I A W F P F L L F D T D W M G K E V 314

1041 TGTACGGAGGAAGTGGGGTAGGGAAGTTGTACAACCAAGGGTGCCTGCAGGGCACTCGGGCTGATGCTGAGTGCT 1120

315 Y G G K V G V G K L Y N Q G V R A G A L G L M L S A 340

1121 GTGGTGTGGGGTGGCCTCCCTCGCTCTTGTGTTATGGCGCGTGGACTTGGTGGGGTGAAGCGCTTTGGGGTGTTC 1200

341 V V L G C A S L A L E L L A R G L G G V K R L W G V A 367

1201 CAACTTCTTGTAGCCATTTGCTTGGCCATGACCGTCTTGATAACCAAAATGGCGCAGTCTACACGCCCTCATGCCATCC 1280

368 N F L L A I C L A M T V L I T K L A Q S T R R H A I H 394

1281 ATAATGGTGATGCTAATCCACCACCGCCACTGGTGTCAAGTGCCTGCTTTGGCCCTTTTGTCTATTCTTGGCATTCTCT 1360

395 N G D A N P P P A T G V K V G A L A L F A I L G I P 420

1361 CAAGCGGTGACTTTGAGCATCCCATTTGCTCTAGCGTCTATATTTTCTAGTGATTCTGGGGCAGGACAAGTCTGTCACT 1440

421 Q A V T F S I P F A L A S I F S S D S G A G Q G L S L 447

1441 CGGAGTTCTAAATCTGTCTATAGTTGTACCACAGATGGTGGTATCAGTGTGAGTGGACCGTGGGATGCCTTGTGGAG 1520

448 G V L N L A I V V P Q M V V S V L S G P W D A L F G D 474

1521 ACGGTAACCTACCGCATTCGTTGTGGGCGCGTGGCAGCTGCGGCTAGCGGATATTGCACTCACCCCTACTTCCATCT 1600

475 G N L P A F V V G A V A A A S G I F A L T L L P S 500

1601 TTACCTCCGATGTTTACCAGCCAAGCCATGAGCGCCGAGGATTTTCATTGAAATATCGATGCATCCTAAGCTAGATA 1680

501 L P S D V S P A K A M S A G G F H 517

1681 GTTTGTTTTCTTCTACCTTGTTTTTGGGTATTGTGATAGTCTTTCTTTTTTTTTGCCCCCTTCGACCGAAACTTCG 1760

1761 GCATTTTTTAGCCAAGGACATCAACTTATGTATAATAAATCTGATTTTGTAAATGTTGGACCGTCGAACAGAATTGGG 1840

1841 GAGCAAAAAAAAAAAAAAAAAAAAAAAAAA 1869

Fig. S1. Sequence of the full-length cDNA clone of *FeSUT1* encoding the Group II SUT FeSUT1 from *F. excelsior*. Transmembrane prediction was performed using the MEMSAT3 & MEMSAT-SVM algorithm of the PSIPREP-Server of the University College London (<http://bioinf.cs.ucl.ac.uk/psipred/>). Predicted transmembrane domains are highlighted in grey. Start and stop codons are underlined.