



Supplementary Figure S1. FT-IR spectra of the hemicellulose obtained from corn cobs. The arrows indicate the characteristic wavenumbers of this polymer.

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1  MKAAVKSLLVLSIYAANVLSAQAAASLEHLNMLFHTRQADASNSTDSSSVN 50
51  WNISSDNSALATAPLAGTFYRGGPALADANSPFHPVTGNGGWEWAVVKA 100
101 RSVVGQLTLEEKVNLTAGITGGRCEGTLGRVDRFGIPELCFQDGPAGFRA 150
151 SDFVTVFPAGVTTAATWNRDLIYKRAAALGAEFVAKGVNVHLGPVTGGPL 200
201 GRSPFQGRNWEFGFDPYLGHEAAYYTVSGTQSAGVISTAKHFLAYEQET 250
251 YRQLYAASDPFTLNPNNTTELTYSANLDDRTLHELYLWPFMNAVRAGTGA 300
301 LVCVYNRVNSTQGCESSKLLNEILKDELDYQGFVTDWSAAFNTSNTYNG 350
351 GSDVVMPPGGMTGGYKNLVGGSDLVRALNAGEVKIERINDGITRLLTQWYL 400
401 RGQDKGYPTVSYKDGYQNTIFNGTVVNEHRDVQGDHRKIVKEIGEEAVTL 450
451 IYNKRSNKAGPQNTDFGLGLPLAKKARVAVFGSDAGPNPYGANACQDWI 500
501 GLGSQLCPANATSNGTQAVGWGSGAGFFPYLIDPLAGISEVAKENRGAVL 550
551 HNLNDVGDDKNQMYVKQQAGLADASLVFVQARSGEDSDRHSLRLDADGDE 600
601 LIKLVASQSNNTIVVMHTVGPVLMGDWFDHPNITALLVLPHLPGQESGSSL 650
651 ARVLYGDVNPSGKMPYSMLSDEDAKRYPKIVGSPASDPQVDFYDGLYIDY 700
701 RAWDKMGLKPLIPFGHGISYTNYSYSNLHIQKAGDNCYAPSAFSGSFKSD 750
751 KQPGGPGSLFQYLVEVSADVQNVGAMAGDEVAQLYVGYPEAANAPIKQLR 800
801 GFDKVQGLEPGAASKQATFKLAKRDFSVWDVVKQKFEVVDGEYKIWVGKS 850
851 SRMSDLTLKGSVTMQNGMVVGMS 874

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Supplementary Figure S2. Predicted theoretical amino acid sequence of β -xylosidase SRBX1 from *S. reilianum*. The signal peptide is underlined, and an arrow indicates the cleavage site. The motive of the glycosyl hydrolases family 3 is indicated in bold letters. The glycosylation sites are highlighted in black. The sequences of the peptides obtained from the sequencing are highlighted in gray.