

Table S1 Specific activities of the putative α -L-arabinofuranosidases in *Caldicellulosiruptor* species All the reactions were performed in a standard assay condition (pH 6 and 70°C). ND: Non-Detectable

Enzyme family	Substrates						
	<i>p</i> NP-AraF	<i>p</i> NP-XylP	<i>p</i> NP-GluP	Beechwood xylan	Wheat arabinoxylan	Sugarbeet arabinan	Debranched arabinan
GH3-1	0.13 ± 0.036	0.17 ± 0.0098	4.60 ± 0.11	ND	N.D.	ND	ND
GH3-2	0.26 ± 0.017	0.25 ± 0.0090	3.65 ± 0.19	ND	ND	ND	ND
GH43-1	ND	ND	ND	ND	ND	ND	ND
GH43-2	ND	ND	ND	ND	ND	ND	ND
GH43-3	ND	ND	ND	ND	ND	ND	ND
GH43-4	ND	ND	ND	ND	ND	ND	ND
GH43-5	ND	ND	ND	5.21 ± 0.0234	4.38 ± 0.095	ND	ND
XynF	5.08 ± 0.065	ND	ND	ND	26.49 ± 1.10	3.44 ± 0.08	1.21 ± 0.056
AbF51	321.06 ± 5.83	ND	ND	ND	ND	4.64 ± 0.12	1.82 ± 0.094

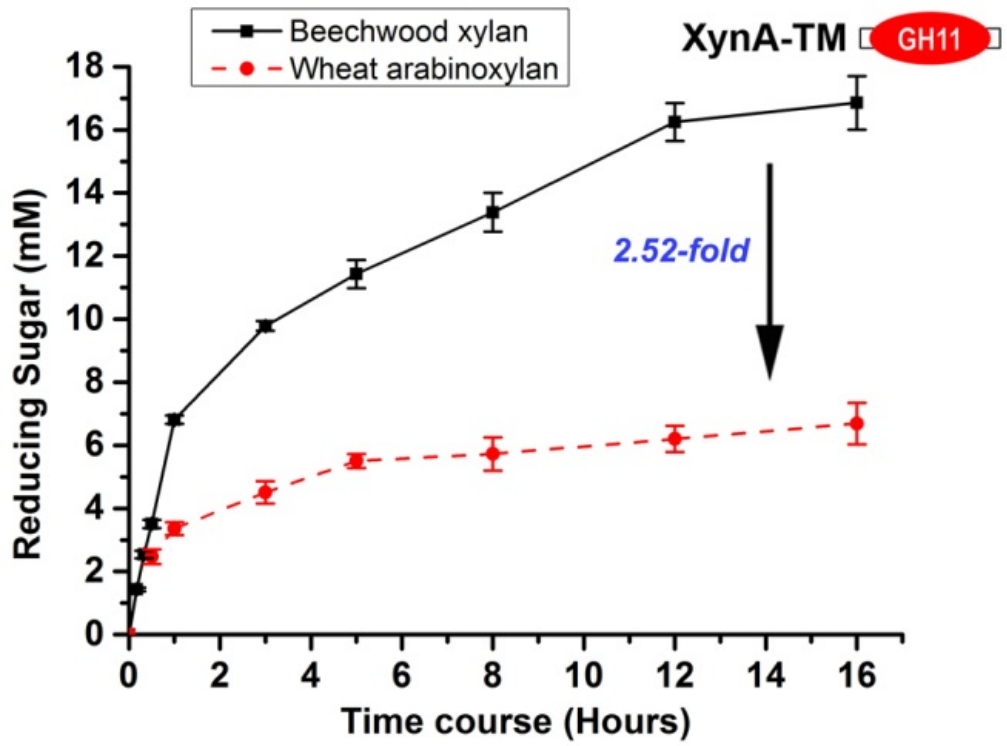


Fig. S1 Time course of reducing sugars released from beechwood xylan and wheat arabinoxylan by a truncated mutant XynA-TM.

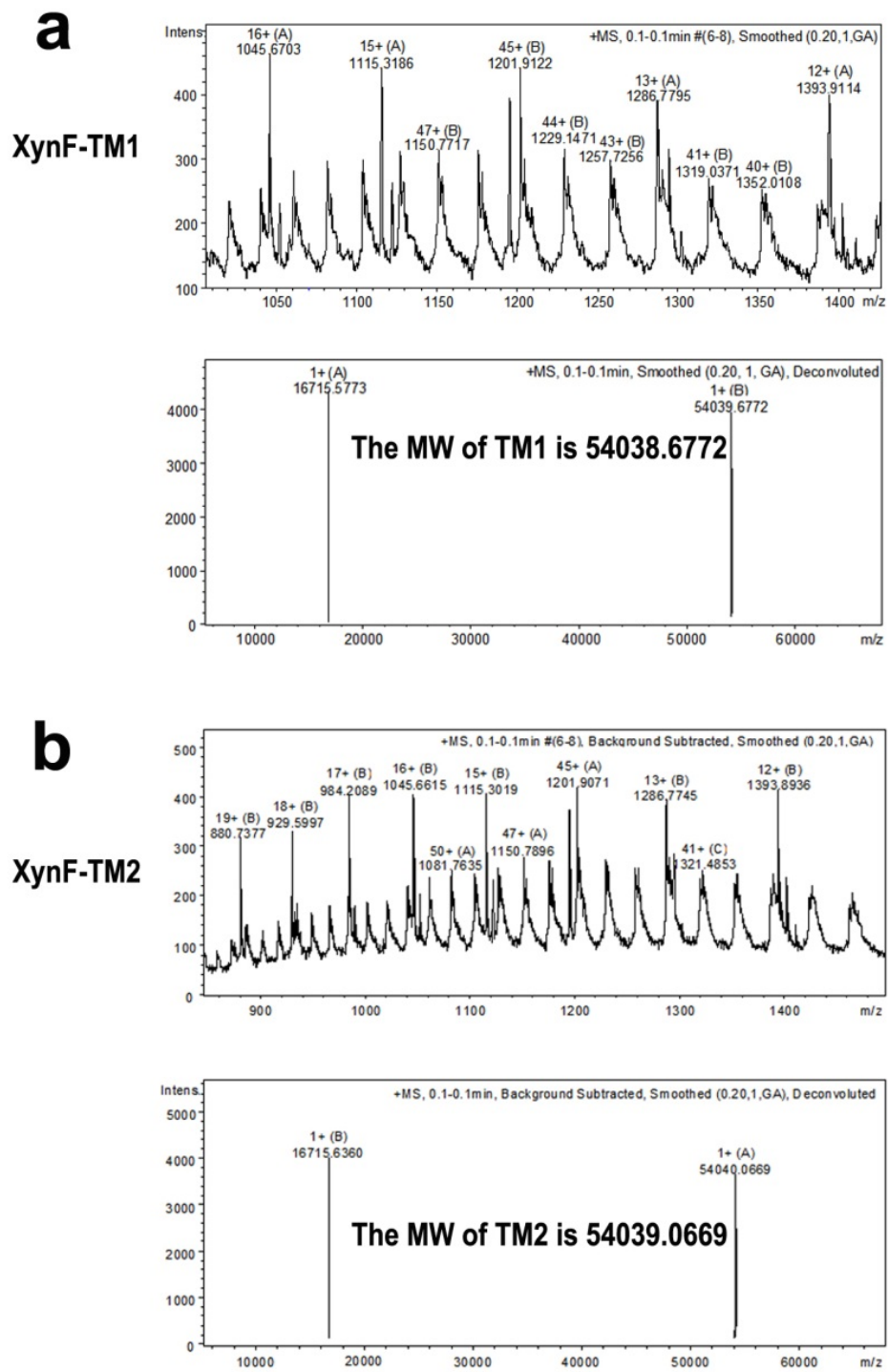


Fig. S2 High resolution mass spectroscopy (HRMS) of two truncated mutants of XynF.

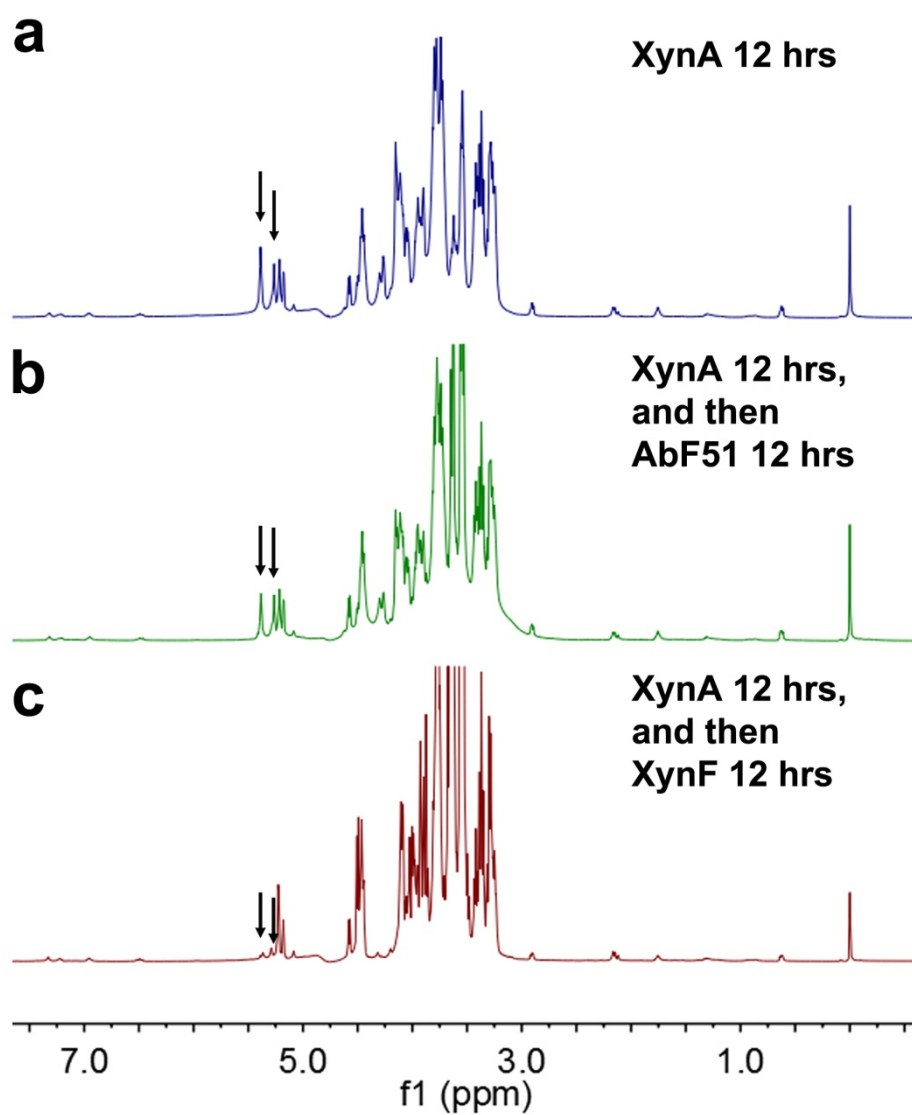


Fig. S3 ^1H -NMR analysis of hydrolysis products of WAX by XynA for 12 h (**a**); by XynA for 12 h, and followed by AbF51 for 12 h (**b**); by XynA for 12 h, and followed by XynF for 12 h (**c**). The signals of 2-O-linked (δ 5.28) and 3-O-linked (δ 5.33) arabinoses were assigned.