

Table S3. Hybrid two-component system mutants analyzed in this study

Disrupted HTCS:	PUL-associated	Substrate defect
<i>BT0267</i>	yes	arabinogalactan
<i>BT0366</i>	yes	arabinan
<i>BT0958</i>	no	none found
<i>BT0981</i>	yes	rhamnogalacturonan II
<i>BT1635</i>	yes	none found
<i>BT1734</i>	no	none found
<i>BT1754</i>	yes	levan, fructose
<i>BT2391</i>	yes	none found
<i>BT2628</i>	yes	none found
<i>BT2860</i>	yes	none found
<i>BT2897</i>	yes	none found
<i>BT2923</i>	yes	none found
<i>BT3049</i>	yes	none found
<i>BT3097</i>	yes	none found
<i>BT3172</i>	yes	none found
<i>BT3302</i>	yes	none found
<i>BT3334</i>	yes	chondroitin sulfate, hyaluronan, dermatan sulfate
<i>BT3465</i>	yes	none found
<i>BT3678</i>	yes	none found
<i>BT3738</i>	no	none found
<i>BT3786</i>	yes	none found
<i>BT4111</i>	yes	homogalacturonan
<i>BT4124</i>	yes	none found
<i>BT4137</i>	yes	none found
<i>BT4178</i>	yes	rhamnogalacturonan I
<i>BT4182</i>	yes	none found
<i>BT4236</i>	no	none found
<i>BT4663</i>	yes	heparin
<i>BT4673</i>	yes	pectic galactan
Non-disrupted HTCS:		
<i>BT2826</i>	yes	
<i>BT2971</i>	yes	
<i>BT3134</i>	no	
<i>BT3660</i>	no	
<i>BT3800</i>	no	
<i>BT3951</i>	yes	
<i>BT3957</i>	yes	