

Supplementary data

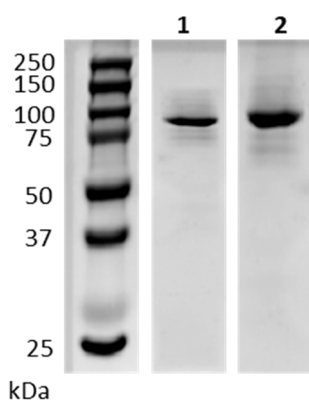


Figure S1. SDS-PAGE gel of purified PoGBE13 (*Pontibacter* sp. SGAir0037; 92 kDa, lane 1) and PoGH57 (*Pontibacter* sp. SGAir0037, 93 kDa, lane 2). Protein amount on gel is 3 µg.

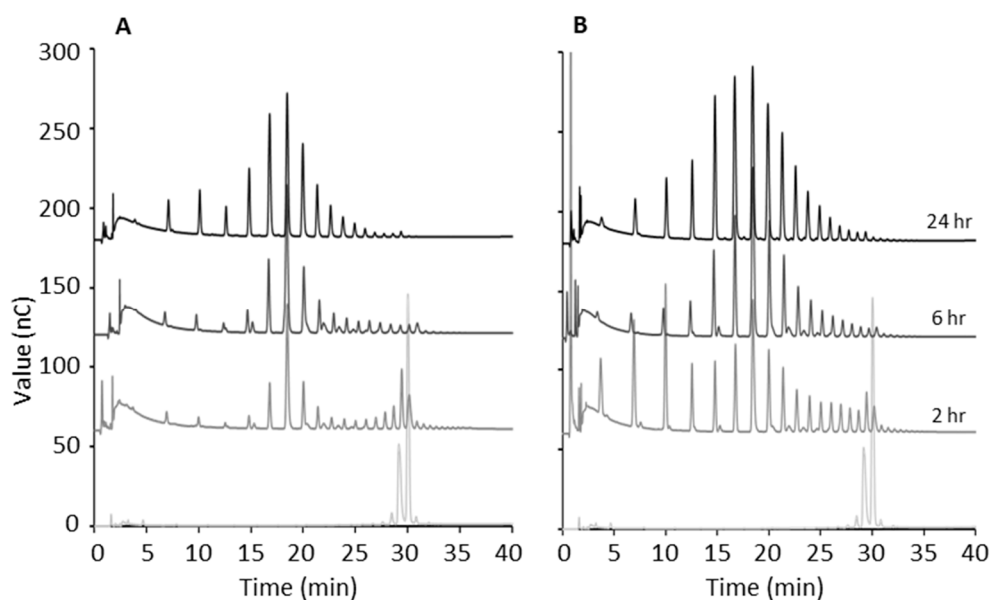


Figure S2. Chain length distribution of MD18 modified with PoGBE13 (*Pontibacter* sp. SGAir0037; $1\text{U}^{\text{B}}/\text{g S}$) over time before [A] and after [B] debranching compared to the untreated substrate.

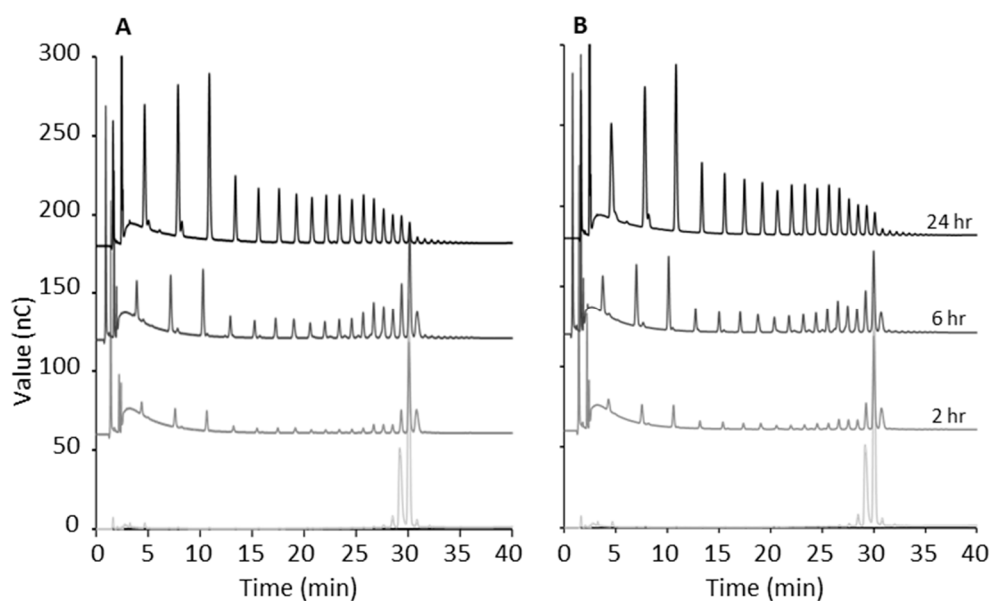


Figure S3. Chain length distribution of MD18 modified with PoGH57 (*Pontibacter* sp. SGAir0037; $1\text{U}^{\text{B}}/\text{g S}$) over time before [A] and after [B] debranching compared to the untreated substrate.

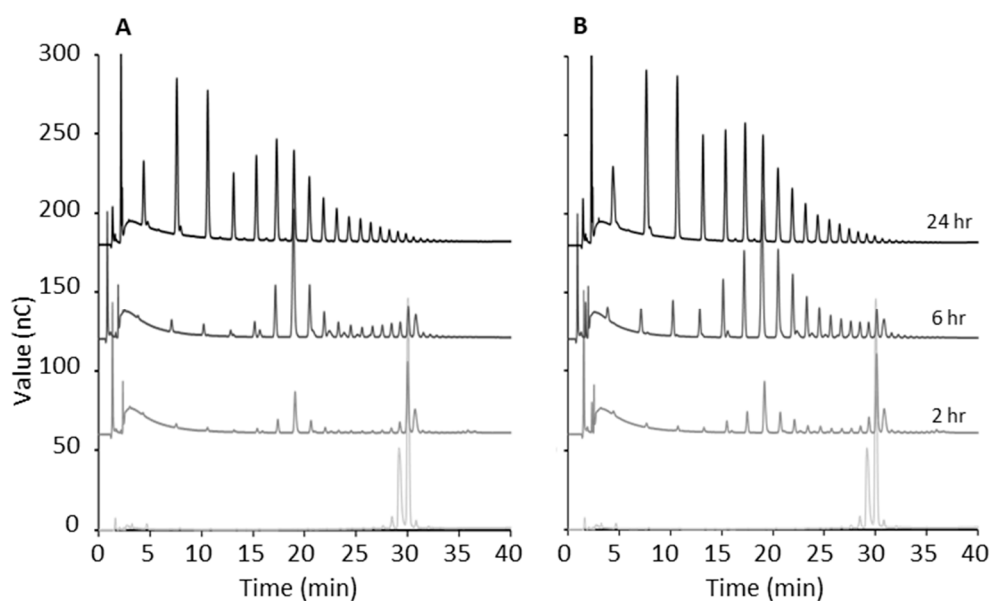


Figure S4. Chain length distribution of MD18 modified with PoGBE13 & PoGH57 (*Pontibacter* sp. SGAir0037; $1\text{U}^{\text{B}}/\text{g S}$) in a one-pot reaction over time before [A] and after [B] debranching compared to the untreated substrate.