

Supporting Information for

Improving the synthesis efficiency of amino acids by analyzing the key sites of intracellular self-assembly of artificial cellulosome

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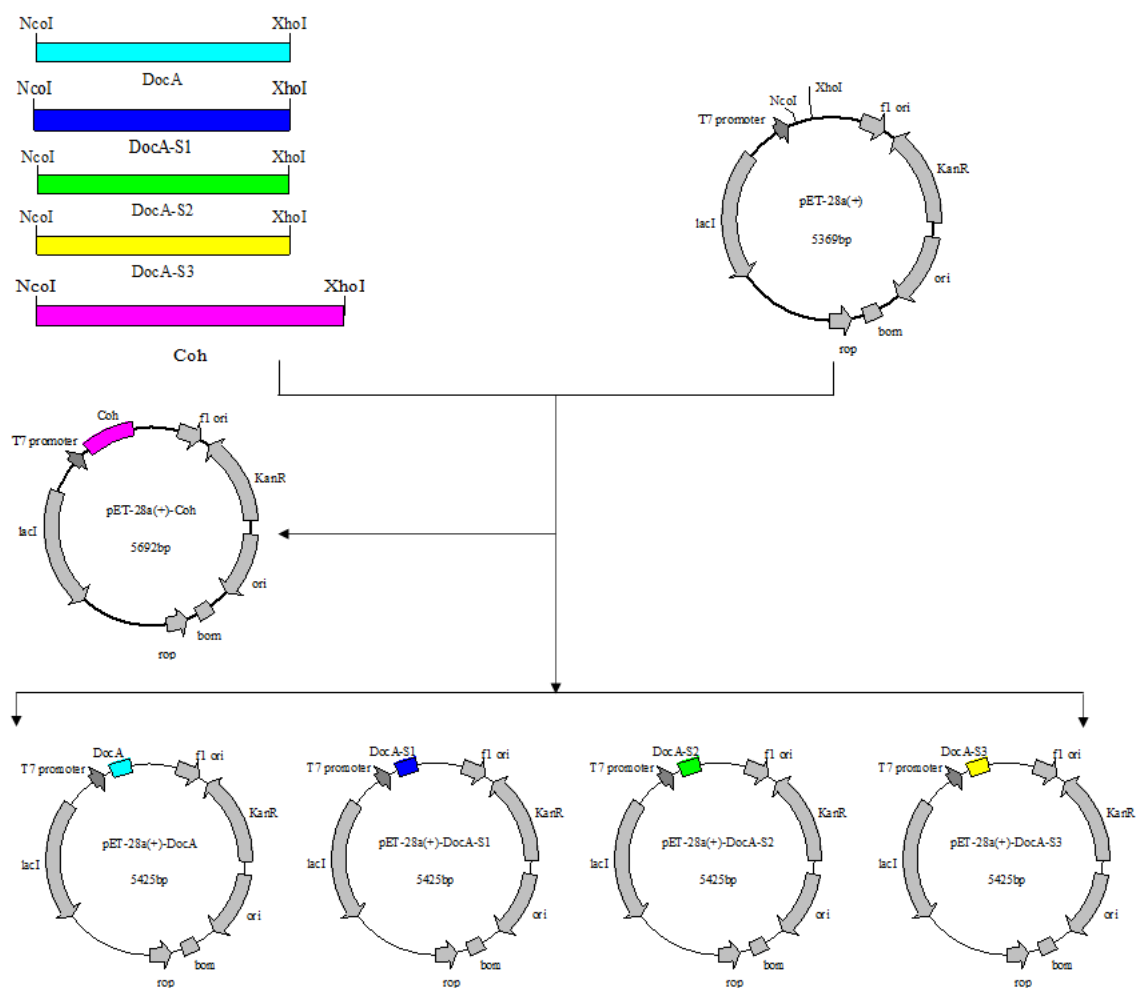


Figure S1. The construction and schematic representation of recombinant plasmid used in protein expression and purification.

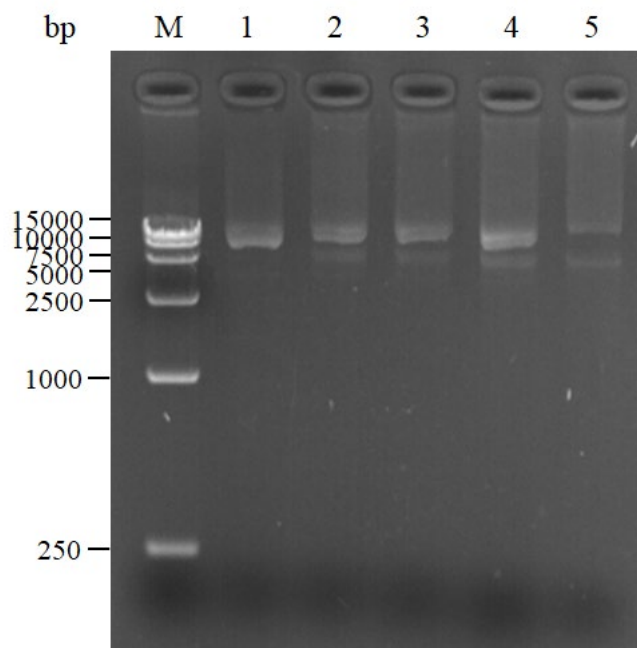


Figure S2. SDS-PAGE verification of recombinant plasmid of DocA mutant protein, M: marker DL15000; 1:5425 bp DNA of pET-28a(+)-DocA; 2:5425 bp DNA of pET-28a(+)-DocA-S1; 3:5425 bp DNA of pET-28a(+)-DocA-S2; 4:5425 bp DNA of pET-28a(+)-DocA-S3; 5:5692 bp DNA of pET-28a(+)-Coh.

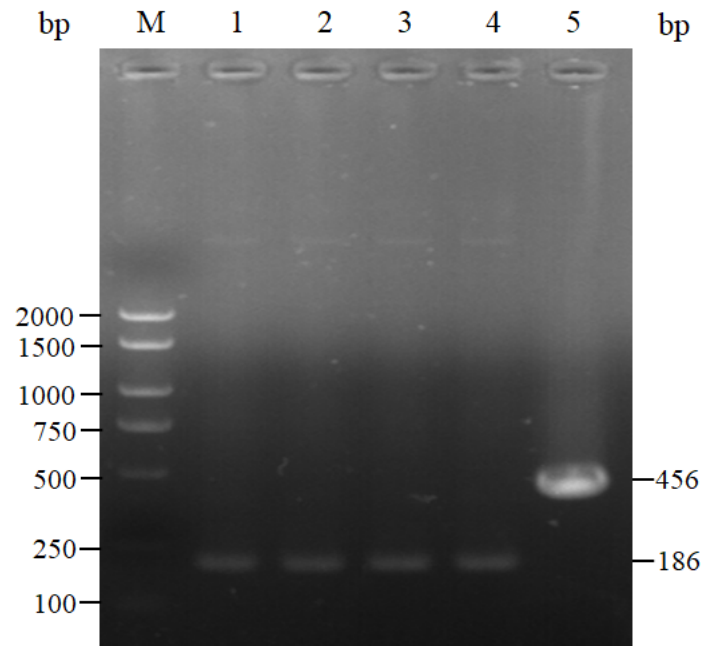


Figure S3. Colony PCR SDS-PAGE verification, M: marker DL2000; 1:186 bp DNA of DocA gene fragment; 2:186 bp DNA of DocA-S1 gene fragment; 3:186 bp DNA of DocA-S2 gene fragment; 4:186 bp DNA of DocA-S3 gene fragment; 5:456 bp DNA of Coh gene fragment.

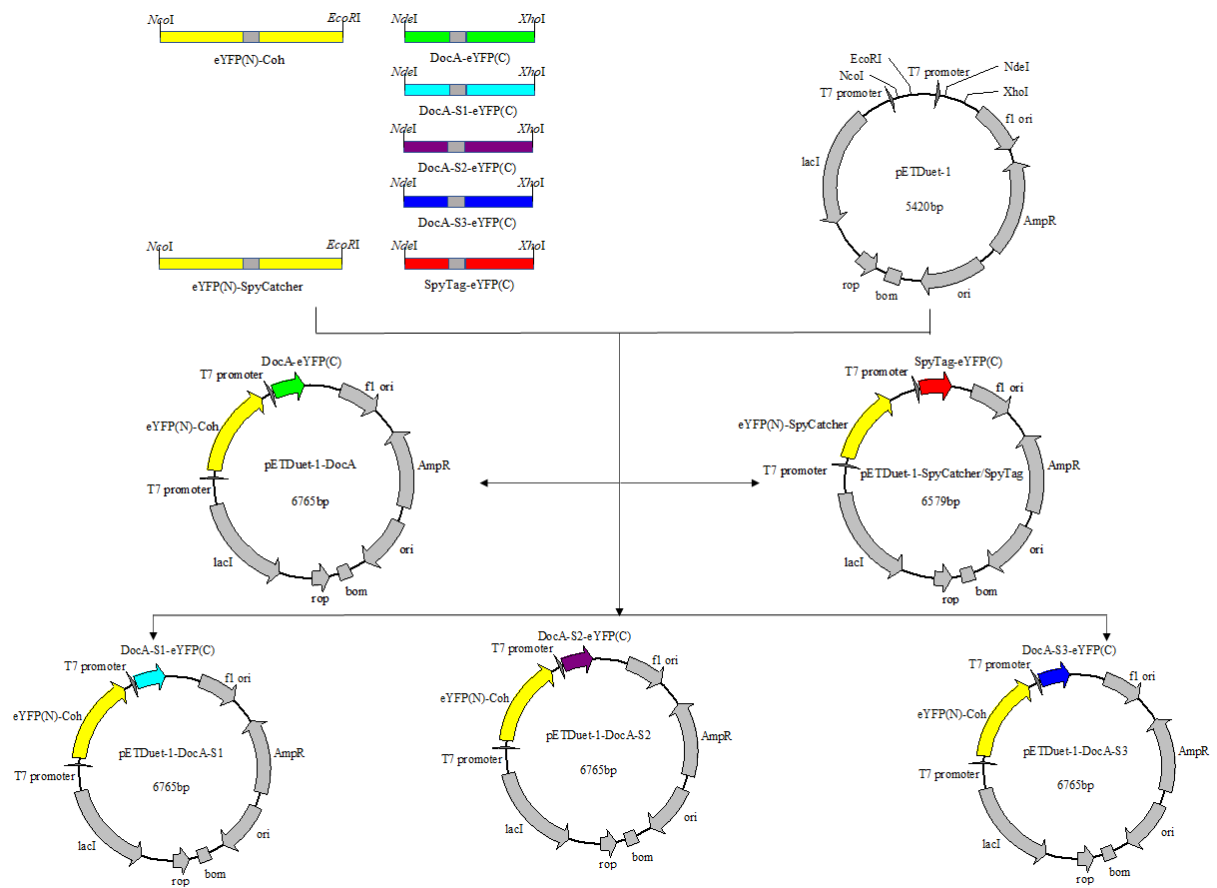


Figure S4. The construction and schematic representation of the recombinant plasmid used in BIFC-FC.

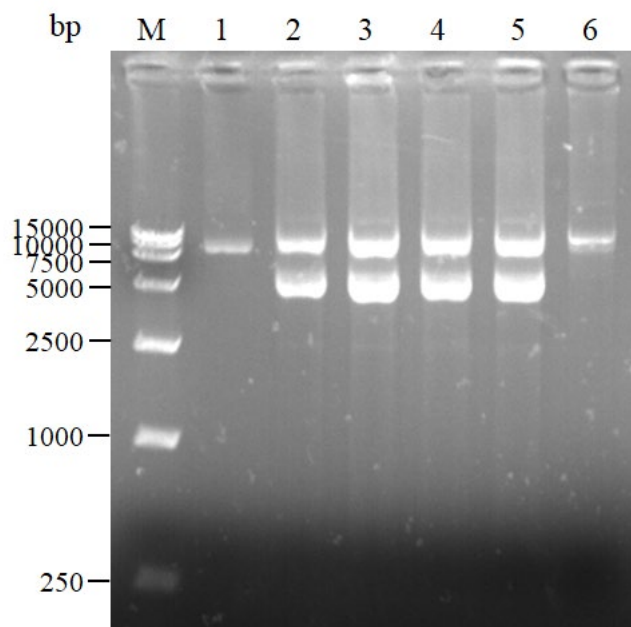


Figure S5. Validation of fusion protein eYFP-DocA mutant /Coh recombinant plasmid. M: marker DL15000; 1: 5420 bp DNA of pETDuet-1; 2: 6765 bp DNA of pETDuet-1-eYFP(N)-Coh/ DocA-eYFP(C); 3: 6765 bp DNA of pETDuet-1-eYFP(N)-Coh/ DocA-S1-eYFP(C); 4: 6765 bp DNA of pETDuet-1-eYFP(N)-Coh/ DocA-S2-eYFP(C); 5: 6765 bp DNA of pETDuet-1-eYFP(N)-Coh/ DocA-S3-eYFP(C); 6: 6579 bp DNA of pETDuet-1-eYFP(N)-SpyCatcher/ SpyTag-eYFP(C);

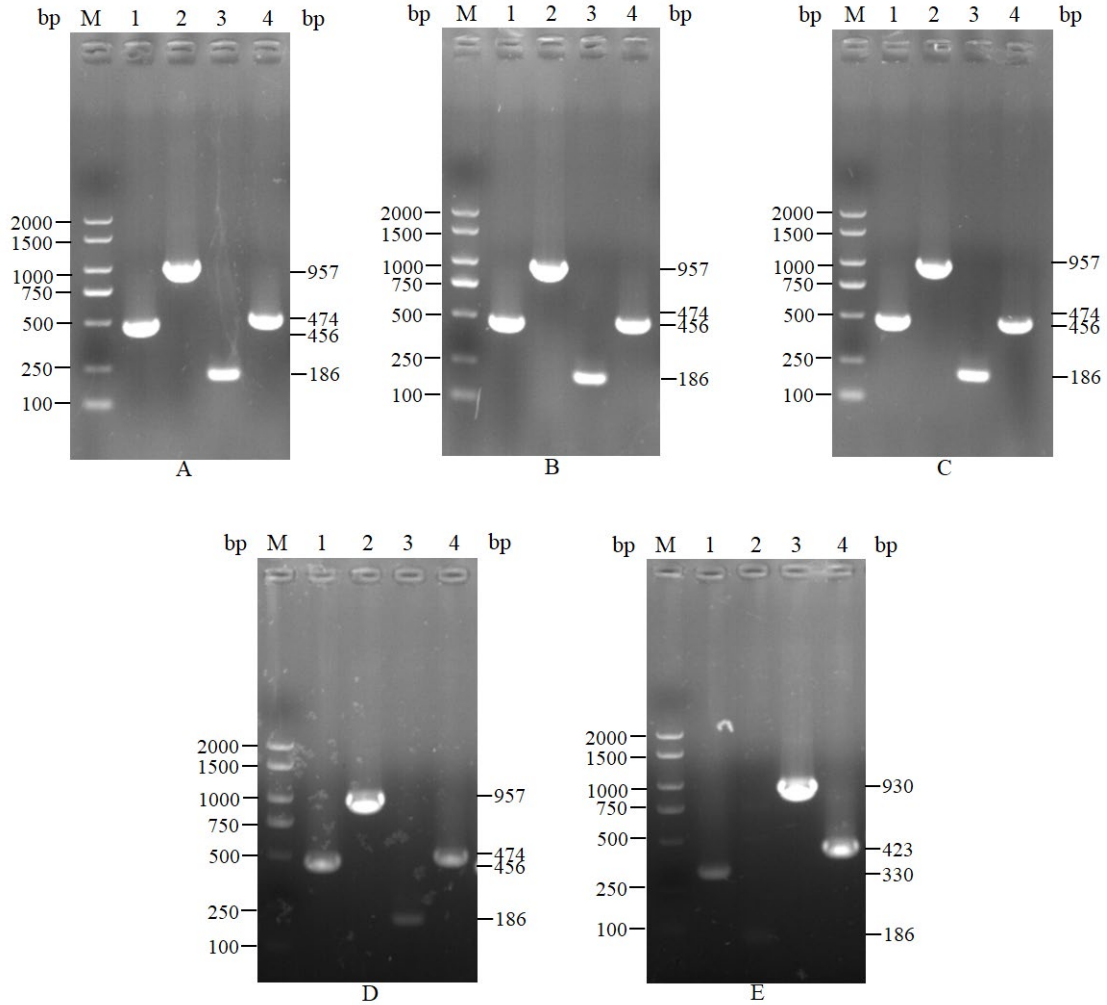


Figure S6. Colony PCR SDS-PAGE verification. (C) M: marker DL2000; 1:957 bp DNA of eYFP(N)-Coh gene fragment; 2:456 bp DNA of Coh gene fragment; 3:474 bp DNA of DocA-eYFP(C) gene fragment; 4:186 bp DNA of DocA gene fragment; (D) M: marker DL2000; 1:957 bp DNA of eYFP(N)-Coh gene fragment; 2:456 bp DNA of Coh gene fragment; 3:474 bp DNA of DocA-S1-eYFP(C) gene fragment; 4:186 bp DNA of DocA-S1 gene fragment; (E) M: marker DL2000; 1:957 bp DNA of eYFP(N)-Coh gene fragment; 2:456 bp DNA of Coh gene fragment; 3:474 bp DNA of DocA-S2-eYFP(C) gene fragment; 4:186 bp DNA of DocA-S2 gene fragment; (F) M: marker DL2000; 1:957 bp DNA of eYFP(N)-Coh gene fragment; 2:456 bp DNA of Coh gene fragment; 3:474 bp DNA of DocA-S3-eYFP(C) gene fragment; 4:186 bp DNA of DocA-S3 gene fragment; (G) M: marker DL2000; 1:930 bp DNA of eYFP(N) - SpyCatcher gene fragment; 2:443 bp DNA of SpyCatcher gene fragment; 3:330 bp DNA of SpyTag-eYFP (C) gene fragment; 4:39 bp DNA of SpyTag gene fragment.