

Figure S1. Time course curves of pH, temperature, dissolved oxygen, cumulative CO₂, cumulative O₂ for perfusion bioreactor.

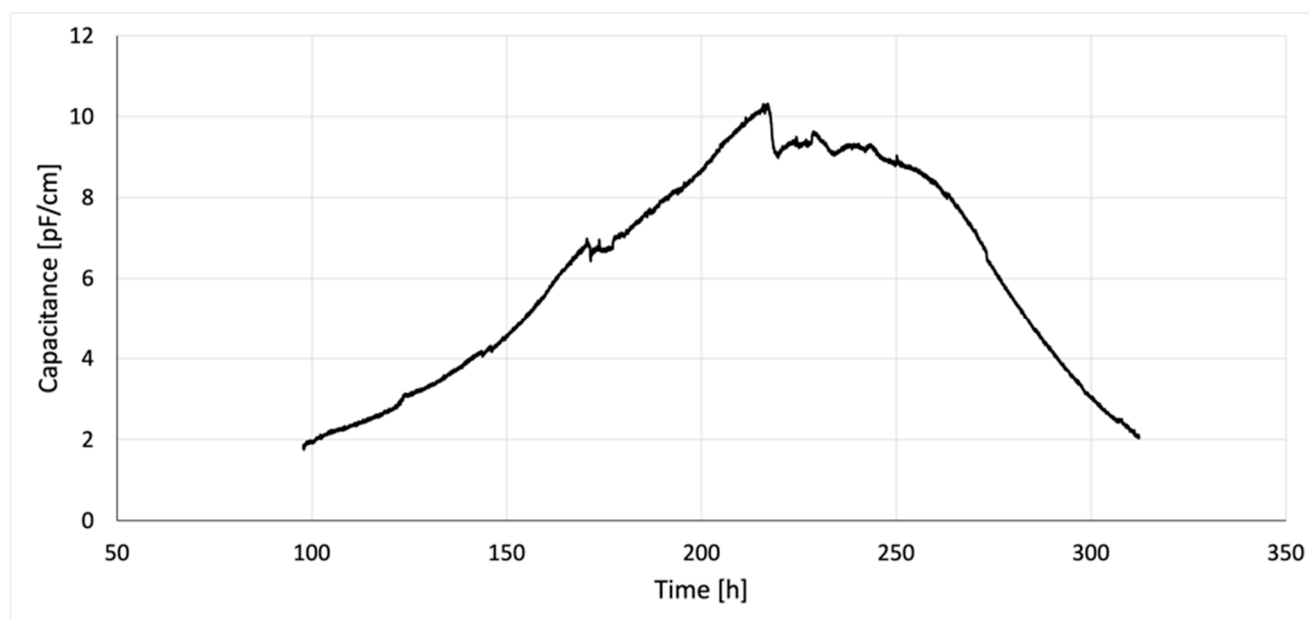


Figure S2. Time course curve of capacitance for perfusion bioreactor.

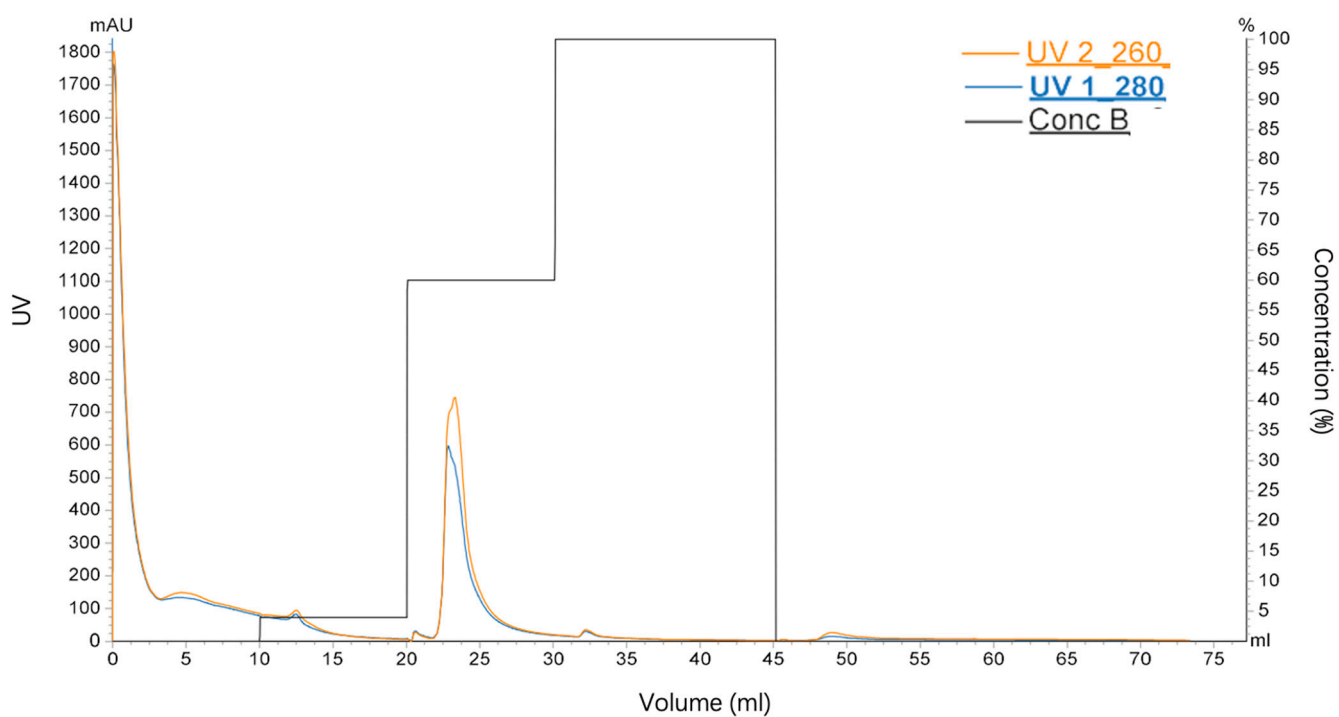


Figure S3. UV 280 nm, UV 260 nm, and concentration of Buffer B curves for continuous flow chromatography.