

Electronic Supporting Information (ESI):

Deep eutectic solvents as new class of draw agent to enrich low abundant DNA and proteins using forward osmosis

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Table S1: Flux and rejection data of different feed solutions using IPA treated TFC membrane under nano filtration mode at 6 bar applied pressure.

Feed solution	Concentration (ppm)	Flux (LMH)	% Rejection
MgSO ₄	1180	6.5±0.5	92
NaCl	3410	5.0±0.5	86
RB5	20	7.0±0.5	100
BSA	200	7.5±0.5	100

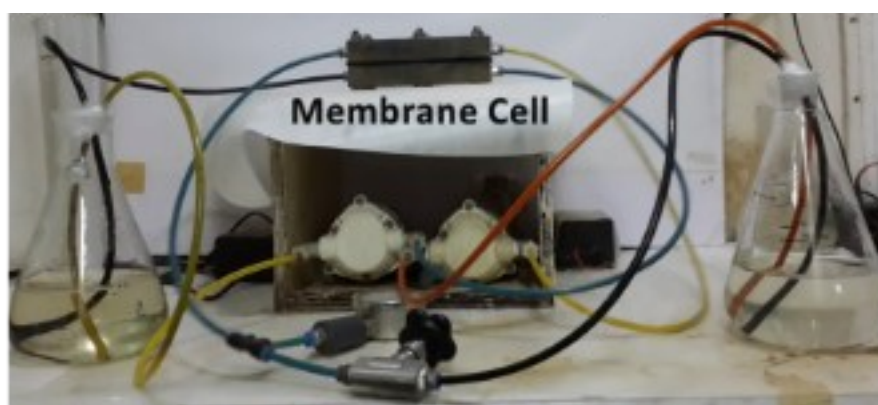


Figure S1. Photograph showing bench-scale experimental set-up used in this study.

Table S2. Raw data of DNA concentration profile analyzed using UV-Vis spectrometer.

Time (hrs)	Abs	Conc (ppm)
0.00	1.00	500.00
2.00	1.24	624.75
4.00	1.44	723.90
6.00	1.69	848.39
8.00	2.04	1024.60
10.00	2.39	1200.30
12.00	2.82	1415.66
14.00	3.55	1780.62

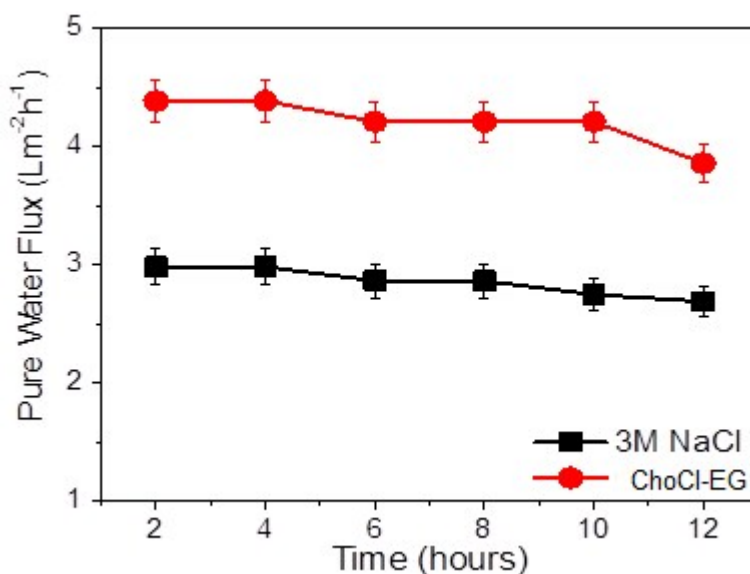


Figure S2 Comparison of flux using 3M NaCl and DES as Draw Solution for protein enrichment.

Table S3. Comparative table for pure water specific flux (LMH/bar) of different membrane from literature used in FO process

Membrane	Thickness (μm)	Pure Water Flux (LMH/bar)	Reference
Double layer CA	35	0.17	J. Membr. Sci. 360 (2010) 522.
Single layer CA	34	0.13	J. Membr. Sci. 360 (2010) 522.
HTI Membrane CA	<50	1.13	Desalination 197 (2006) 1.
TFC Membrane	-	2.56	J. Membr. Sci. 335 (2009) 103.
CA Membrane	~250	0.72	J. Membr. Sci. 335 (2009) 103.
HTI Membrane	-	0.67	J. Membr. Sci. 343 (2009) 42.
CA Hollow Fiber	-	1.8-5.0	J. Membr. Sci. 355 (2010) 36.
TFC polyamide	~140	~4.0	Present Study