



Your Companion
Life Science Filtration

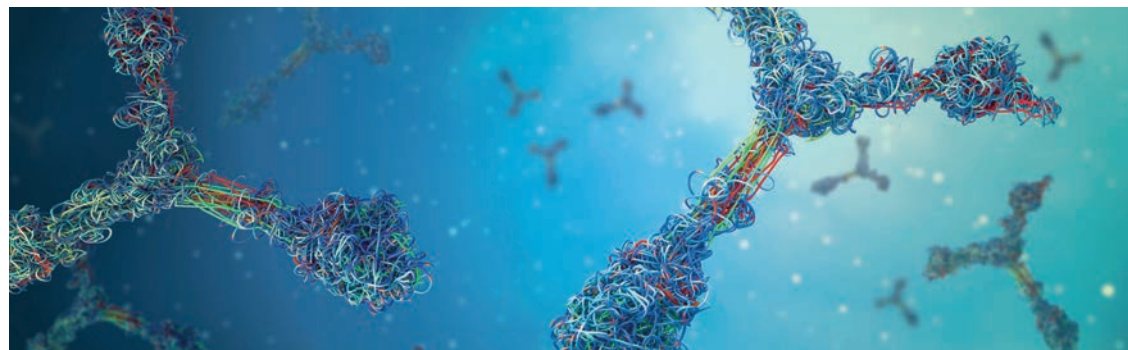


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Digital Membrane Chromatography

Separation, purification and
concentration of biomolecules



Digital Membrane Chromatography

Applying electrical voltage to chromatographic membranes opens a third dimension to biomolecule recovery beyond the use of salt or pH shift.

Membrane chromatography was developed to speed up downstream processing. Compared to separation with conventional resin beads, it is around 10 times faster. Nevertheless, in both resin and in membrane chromatography the need for high quantities of buffer solutions to release the purified target molecules causes a risk of biomolecule aggregation and increases the overall DSP costs.

i3 had a revolutionary idea. By coating a thin gold layer on both sides of a membrane, an electrical field can be applied. Adsorbed biomolecules can be easily desorbed by electrical potential control.

The technology works for ion exchange membranes and digital affinity chromatography is the next milestone to increase the i3 product portfolio.

Possible applications and new results

i3 Membrane is looking forward to discussing the potential advantages of this new technology with the application experts.

- Which of your use cases is suitable for digital membrane chromatography?
- What are your application needs in terms of process conditions?
- We are interested in any new application - feel free to ask for a test kit.

i3 Membrane - Your Companion in Life Science Filtration.

