

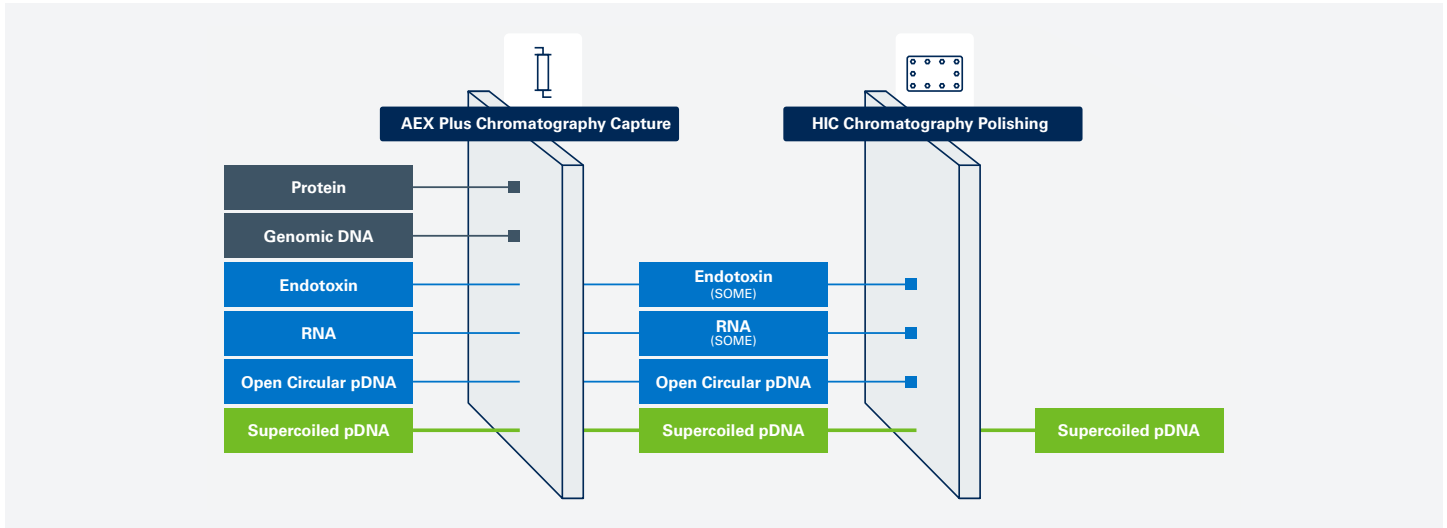
# Purexa™ MCP

## Membrane Chromatography Products

Purexa MCP is the first commercially available membrane chromatography product for the polishing of supercoiled pDNA. It offers up to 10x productivity compared to traditional resins.

### How Purexa MCP Works

Purexa MCP is the cornerstone of our pDNA purification offering and is able to successfully separate supercoiled pDNA from impurities such as open circular pDNA. Utilizing hydrophobic interactions, our porous membranes are functionalized for better purification.



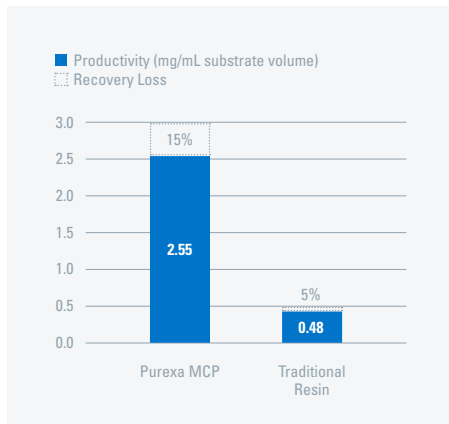
**Figure 1.** The plasmid DNA purification process using Purexa MCP.

\*Purexa MCP is recommended following our Purexa NAEX product as the capture step for pDNA.

### Superior productivity: up to 10x with Purexa MCP

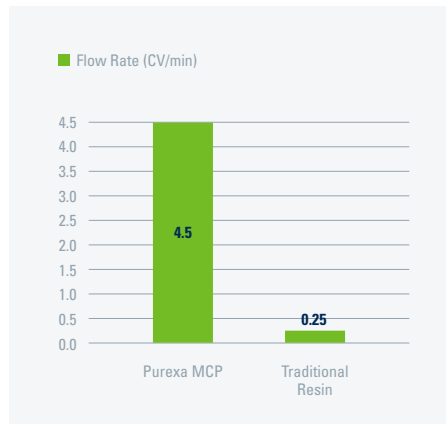
- + Higher dynamic binding capacity
- + Faster cycle times
- + Consistent performance through linear scale-up
- + Easier setup and breakdown

**Higher binding capacity with similar recovery...**



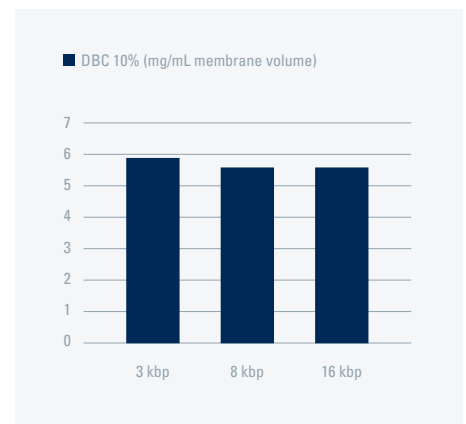
**Figure 2.** The 85% recovery in eluate is comparable to resin products. The binding concentrations are 2.5 and .05.

**... with up to 20x faster flow rates...**



**Figure 3.** Purexa MCP is able to function at 22x faster flow rates compared to tradition resin products with 10x higher binding capacity.

**... and consistent performance across multiple pDNA sizes.**



**Figure 4.** In pDNA purification with Purexa MCP, dynamic binding capacity (DBC) is not inhibited by base pair size at a flow rate of 40 CV/mL and does not have the usual clogging or pressure issues.

**Purexa MCP**

	Volume	Suggested Flow Rate	Binding per Unit: pDNA*
<b>Column</b>	Maxi: 0.22 µL	2-10 mL/min	0.44 mg pDNA
<b>Cassette</b>	2 ml	2-20 mL/min	4 mg pDNA
	10 ml	10-100 mL/min	20 mg pDNA
<b>Well Plate</b>	24 Well Plate (10 mL per well)	n/a 1-2 bar operating pressure	80-120 ug per well pDNA

\* Higher conductivity can lead to higher binding capacity.

**Buffer:** 2.0 M Ammonium Sulfate, pH = 7.0

**Elution Buffer:** 0.8-1.7 M Ammonium Sulfate 0.3 M NaCl or LiCl 1xTAE, pH = 7.5

Interested in purification solutions for mRNA, pDNA, proteins, antibodies, and more?

Contact us at [purilogicsinfo@donaldson.com](mailto:purilogicsinfo@donaldson.com)



[purilogics.com](http://purilogics.com)  
Greenville, South Carolina, USA



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