Purilogics™
By Donaldson

Purexa™ MCP 24 Well Plate
Membrane Chromatography Product User Manual

INTRODUCTION
Purexa™ MCP 24 Well Plate is Purilogics®' thiophilic membrane chromatography plate. The ligand of Purexa MCP products is 2-mercaptopyridine. Each well of the 24 well plates has a loading volume of 10mL. Purexa MCP 24 Well Plates are compatible with most major positive pressure manifold systems. We recommend an operating pressure of 1-2 bars to achieve optimum flowrates. It is *NOT* intended for use in clinical or diagnostic procedures and is intended for research purposes only.

SPECIFICATION

Pore Size	1µm
Typical pDNA binding per well	100-200 µg per well in 2.5M Ammonium Sulfate, 1xTE, pH 7.5; capacity may vary when different types of pDNA or buffers are used
Recommended Operating Pressure (pressure manifolds)	1-2 bars
Loading Buffer Example	2.2-3 M Ammonium Sulfate, 1XTE, pH=7.5
Washing Buffer Example	2-2.5M Ammonium Sulfate 1X TE, pH=7.5
Elution Buffer Example	0.8-1.7 M Ammonium Sulfate, 0.3 M NaCl or LiCl, 1X TE, pH=7.5
Cleaning Buffer Example	0.5M – 1M NaOH + 2M NaCl followed by 5mL 20mM Tris, pH 7.0, then DI as needed

MATERIALS SUPPLIED
The Purexa MCP 24 Well Plate is supplied with one receiving plate. More receiving plates can be ordered at Purilogics.

TYPICAL BIND-AND-ELUTE PROCESS CYCLE
Equilibration: Fill reservoir with 5mL Ammonium Sulfate, 1X TE, pH=7.5 and process solution through to a receiving plate using a positive pressure manifold (operating ranges above).
Loading: Load reservoir with plasmid mixture and process.
Washing: Load reservoir with 5 mL 2.0 M Ammonium Sulfate, 1X TE, pH=7.5 for a rinse step and process.
Elution: Add at least 1 mL of 1.7M Ammonium Sulfate + 0.3 M LiCl + 1xTE, pH 7.5 ensuring that the entire membrane surface is wetted prior to processing.

NOTE: Additional washing steps may be needed to achieve optimum purity

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CLEANING AND STORAGE

To clean the plate, we recommend loading reservoir with 1 mL 1M NaOH + 2M NaCl followed by 5 mL 20 mM Tris, pH=7.0 then DI as needed. Then we recommend filling the well with 20% ethanol solution and sealing to ensure the membrane remains wet. Store in the fridge until needed. All membrane plates should be kept between 2-8°C and protected from sunlight.

CAUTION: If the membrane is dried out, it may affect plate's reusability.

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