Purilogics™
By Donaldson

Purexa™ OdT Maxi Column; 0.5µm Pore Size

Membrane Chromatography Product
User Manual

INTRODUCTION

Purilogics® mRNA membrane chromatography cassette, Purexa™ OdT Maxi Column, is *NOT* intended for use in clinical or diagnostic procedures and is intended for research purposes only.

SPECIFICATION

Membrane Bed Volume	0.2 mL
Pore Size	0.5µm
Housing Material	Polypropylene
Maximum System Pressure	0.5 MPa
Flow Rate Range	0.5 - 10 mL/min
Recommended Flow Rate	1 - 3 mL/min
Loading/Running Buffer Example	50 mM Sodium Phosphate + 250 mM NaCl, pH 7.0
Wash Buffer Example	50 mM Sodium Phosphate pH 7.0
Elution Conditions Example	Deionized water
Cleaning Buffer Example	0.1 M NaOH. A CIP cycle prior to first use is recommended

MATERIALS SUPPLIED

The Purexa OdT Maxi Column is supplied with two caps and a luer lock connector.

PRIMING

Prime the columns by setting the FPLC flow rate at 2 mL/min. Connect the column to the inlet side by using wet-to-wet connection. Invert the column to allow bubbles to purge. Use wet-to-wet connection to connect the downstream side. Reverse the flow for a few mL and then resume downflow. Allow flow to continue until the UV has stabilized. The column is now ready for use.

AN EXAMPLE OF A BIND-AND-ELUTE PROCESS CYCLE

Buffer compositions listed as examples are a recommended starting condition. Optimal conditions will be target specific and will also be contingent on the level and type of impurities present in feed. Below are suggested starting conditions and some modifications to try to aid in determination of optimal conditions.

Equilibration: Run loading buffer through the column to equilibrate, we recommend starting with 50 mM Phosphate + 250 mM NaCl pH 7.0. To increase binding, higher conductivity conditions may be used.
Loading: Inject mRNA feed through the column.
Washing: Load the column with 4mL 50mM Phosphate pH 7.0 until cnoductivity stabilizes.
Elution: Elute using Deionized water. High concentration mRNA may cause high viscosity in eluate which may lead to higher elution pressure. If pressure is too high, adjust the flow rate as needed

Continued

STORAGE

For Clean-in-Place (CIP), we recommend running 0.1 M NaOH through the column until UV signal stabilizes followed by additional equilibration buffer to return to loading condition. A CIP cycle is recommended between each bind and elute cycle and at the end of each purification run.

To store, run deionized water through the device until conductivity reaches 0.0 mS/cm. We then recommend filling the column with 20% ethanol solution, capping the inlet and outlet, and storing in a qualified sealable bag between 2-8°C and protected from sunlight.

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