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GELFREE® 8100

12% Cartridge Kit

Quick Reference Card

Part Number: 42102

Brief instructions are provided for use of the GELFREE® 8100 12% Cartridge Kit with the GELFREE® 8100 Fractionation System. This kit is designed for fractionation of proteins in the mass range 3.5 - 50 kDa, with optimized resolution at 10 - 50 kDa. For detailed operating instructions, refer to the GELFREE® 8100 User Manual available at www.expedeon.com or contact Technical Support.

Before You Start

! IMPORTANT The presence of low molecular weight contaminants, such as detergents, urea, and excessive salts, will negatively impact results. Before you start, be sure to fully desalt and remove any known contaminants. For effective removal of salts, we recommend the Expedeon Amintra™ Desalting Spin Columns (ADS0050 or ADS0100).

Prepare Samples

Reagent	Volume
Desalted Sample	Up to 112 µL
Acetate Sample Buffer (5X)	30 µL
1M DTT Reducing Agent	8 µL
Deionized Water	x µL
TOTAL VOLUME	150 µL

Heat at 50°C for 10 min. (**Note: Excessive heating will cause degradation**)

Prepare Cartridge

Replace Storage Buffer in the desired channels with HEPES Running Buffer (RB). Place 6 mL RB in the Cathode Reservoir, 8 mL in the Anode Reservoir, and 150 µL in the Collection Chamber.

Load Samples

Remove any residual Running or Storage Buffer from the Sample Loading Chamber with a pipette. Add the entire 150 µL of prepared sample into the chamber.

Run Conditions

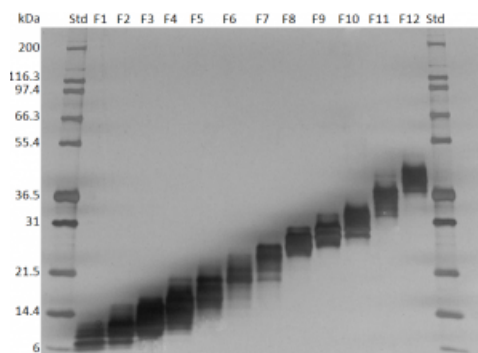
Voltaje:	50-85 V
Run Time:	~2 hours
Expected Current:	3-11 mA per channel

Recommended Method

Step	1	2	3	4	5	6	7	8	9	10	11	12	13
Voltage (V)	50	50	50	50	50	85	85	85	85	85	85	85	85
Fraction Interval (min)	16	44	3	3.6	4	2.3	2.5	2.8	3.3	4	7	10	18
Total Elapsed Time (min)	16	60	63	66.6	70.6	72.9	75.4	78.2	81.5	85.5	92.5	102.5	120.5
Action/ Fraction #	Add RB*	Change RB/1	2	3	4	5	6	7	8	Change RB/9	10	11	12

* At the first pause (completion of Step 1) add 2 mL of HEPES Running Buffer (RB) to the Cathode Reservoir, for a total of 8 mL. Wash the sample loading chamber thoroughly with Running Buffer.

Expected Outcome



Fractionation of *S. cerevisiae* using the GELFREE® 8100 12% Cartridge Kit. A 500 µg aliquot of yeast lysate was fractionated into 12 fractions ranging in molecular weight from 3.5 to 50 kDa. The fractions were visualized using 1D gel electrophoresis, followed by silver staining.



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