

# GELFREE® 8100 5% Cartridge Kit

Applicable to: 42104

Release 1 © EXPEDEON 15/08/2018

## INTRODUCTION

This kit is designed for fractionation of proteins in the mass range 3.5 - 500 kDa, with optimized resolution at 75 - 500 kDa. For detailed operating instructions, refer to the Gelfree 8100 User Manual available at [www.proteindiscovery.com](http://www.proteindiscovery.com) or contact Technical Support

## INSTRUCTIONS

**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 Fisher Scientific Desalting Columns (PI-89882).

## 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
<b>Total Volume</b>	<b>150 µL</b>
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

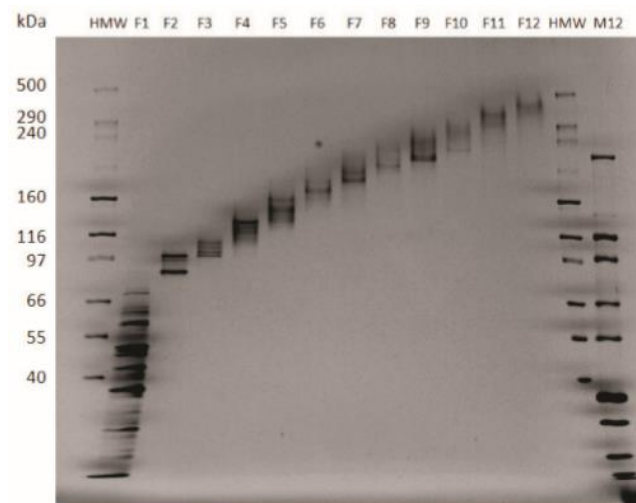
Voltage	50-100 V
Run Time	~3.3 hours
Expected Current	3-11 mA per channel

## RECOMMENDED METHOD

Step	1	2	3	4	5	6	7	8	9	10	11	12	13
Voltage (V)	50	50	50	50	50	100	100	100	100	100	100	100	100
Fraction Interval (min)	12	44	4	4	8	6	8	10	12	15	18	25	30
Total Elapsed Time (min)	12	56	60	64	72	78	86	96	108	123	141	166	196
Action/ Fraction #	Add RB*	Change RB/1	2	3	4	5	Change RB/6	7	8	9	Change RB/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 5% Cartridge Kit.** A 200 µg aliquot of yeast lysate was fractionated into 12 fractions ranging in molecular weight from 3.5 to 500 kDa. The fractions were visualized using 1D gel electrophoresis, followed by silver staining.

## TECHNICAL SUPPORT

For technical enquiries get in touch with our technical support team at: [www.expedeon.com/contact](http://www.expedeon.com/contact)

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