

Automate *your* Density Gradient Separation

Programmable Density Gradient Fractionation System

Density gradient centrifugation is used for the gentle isolation of cellular ribosomes, RNA, DNA, and organelles.

- Prepare gradients and use immediately without overnight refrigeration.
- Hands-off fraction separation.
- Seals and punctures the bottom of most common centrifuge tubes.
- Zone broadening and mixing are minimized with upward bulk flow.
- Detect at all popular wavelengths.

SEPARATION SCIENCE

Density Gradient Fractionation

Low pressure LC instruments

Automated Organic Purification

LC Bioseparation Systems

HPLC

Syringe Pumps

Supercritical Fluid Extraction & Chromatography



Programmable Density Gradient System

Making the Gradient

Isco's Programmable Density Gradient System reproducibly forms density gradients in centrifuge-ready condition. Samples can be immediately loaded onto prepared gradients and spun in a centrifuge.

Fractionating the Gradient

Once the spin is completed, the separated components are recovered in separate collection tubes.

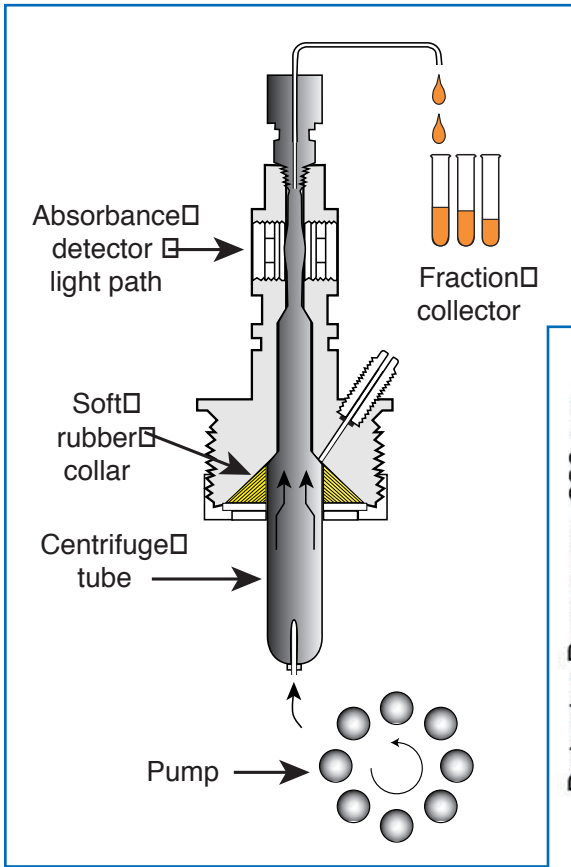
Fractionate and quantitate centrifuged zones with unmatched precision. The Isco Density Gradient System produces a continuous absorbance profile as the gradient is collected in precisely measured fractions.

Contact Isco or your Isco Dealer for further details and product demonstrations.

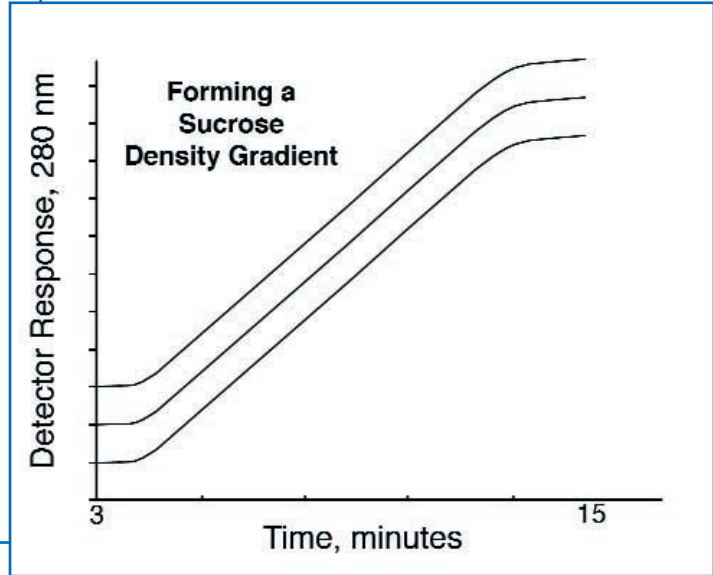
Isco, Inc. • PO Box 82531 • Lincoln NE 68501 • Phone (402) 464-0231 • Fax (402) 465-3022 • e-mail: info@isco.com
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Fractionation is performed by introducing a dense chase solution into the bottom of the centrifuged tube, raising the gradient intact by bulk flow. Chase solution may be injected either by piercing the bottom of the tube or from the top with the optional cannula.



Precise, No-Fuss Gradients

Using two solutions where A=water and B=50% sucrose (w/v) in water with blue food coloring to visualize the gradient, three 5% to 40% sucrose gradients were prepared.

Isco Density Gradient Systems

Isco offers two density gradient systems.



Programmable Density Gradient System67-9000-177

Prepare and fractionate gradients with a single system.

Includes: Isco's tube piercing system; Peristaltic Pump; UA-6 Detector with 254 and 280nm filters, density gradient flow cell; and Foxy Jr. Fraction Collector ready for microcentrifuge tubes.



Density Gradient Fractionator67-9000-176

All you need to fractionate and detect gradients.

Includes: Isco's tube piercing system; Peristaltic Pump; UA-6 Detector with 254 and 280nm filters, density gradient flow cell; and Retriever 500 Fraction Collector.

References: 1. Brakke, M.K., "Density Gradient Centrifugation: A New Separation Technique", Journal of the American Chemical society 73, 1847 (1951)
 2. Brakke, M.K., "Density Gradient Centrifugation and Its Application to Plant Viruses", Advances in Virus Research 7, 193-224. Academic Press, New York (1960)
 3. Brakke, M.K., "Density Gradient Centrifugation", Methods in Virology 2, 93-118. Academic Press, New York (1967)
 4. Schumaker, V.N., "Zone Centrifugation", Advances in Biological and Medical Physics 11, 245-339 (1967).

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