Genizer Lipid Extrusion Methods

Liposomes have grown as an important biomedical carrier system. One of the most critical factors influencing the performance of liposome is particle size. High-pressure homogenization, extrusion and sonication are methods for reducing liposome size. The extrusion technique is a reasonably mild and quick procedure among them.



Genizer liposome extrusion line includes jacketed liposome extruders, online extruders and hand driven liposome extruder



Genizer Jacketed Liposome Extruders:

The Genizer Jacketed Liposome Extruder utilizes a nitrogen gas cylinder to force a drug, protein or gene liposome suspension via a track-etched membrane with a predetermined pore size; generally, 5–10 passes are enough to create a sample with consistent liposome size. The Genizer Jacketed Liposome Extruders are designed to produce uniform unilamellar liposomes and lipopolyplexes with minimal dead volume.

Features:

- Capacity of the extruder barrel: 10/100/800/3000mL
- Cooling: jacketed thermo barrel
- Material: 316L stainless steel, NBR or Viton
- Spares: O-rings, collection silicone tubing
- Including: Large pore support screen, laser micro pore disc, high pressure nitrogen tubing G5/8



Genizer Online Liposome Extruders:

The Genizer Online Extruder combines with a high pressure homogenizer, which can help decrease the number of passes required to attain a perfect liposome size distribution and desired particle sizes since the homogenizer system (diamond interaction chamber) will help pre-treat the liposome sample to the nanoscale.

Features:

- Capacity of the extruder barrel: 25/200/1000mL, 8/20L
- Cooling: jacketed thermo barrel
- Material: 316L stainless steel, NBR or Viton
- Spares: O-rings, collection silicone tubing
- Including: Large pore support screen, laser micro pore disc



Genizer Hand Driven Liposome Extruders (Mini scale):

The Genizer HandExtruder is a low-cost micro liposome extrusion tool. Two gas-tight syringes, an extrusion body and a stabilizing block are included.

It facilitates liposome preparation with hands-on operation. The user can gradually push the plunger of the filled syringe to drive the sample through the filter membrane within the extruder body, and then gently push the plunger to return the sample to the original syringe. To get a sample with uniform liposome sizes, the user can repeat these two steps five to ten times.

Features:

- Catalog No: HandExtruder 1 mL; HandExtruder 2.5 mL
- Cooling: jacketed thermo barrel
- Mini sample size: 0.25 mL
- Spares: O-rings
- Feed and Collection: Gas-tight syringe, Hamilton

