

# LabSmith CapTite™ Reusable Cartridges

## Cost-effective preparation of microfluidic volumes

- ▶ Simple, reusable design
- ▶ High throughput sample preparation
- ▶ Wide range of options and applications
- ▶ Integrates with all CapTite™ microfluidic products



Until now, commercially available options for preparing micro-liter volumes have suffered major drawbacks, including high back pressure, clogging, leakage and limited surface chemistry options. LabSmith's new CapTite cartridges offer customizable packing and re-use, for easy sample preparation in both prototypes and high-throughput, automated systems.

### High-Throughput Sample Prep

CapTite cartridges (Figure 1) are sold empty to be packed, and re-packed, with a wide variety of materials and membranes, for automated preparation. Featuring extremely low back pressure, they can even be used with hand-pressurized syringes.

CapTite cartridges offer a far more cost-effective sample prep solution than single-use traps or columns. They offer the only solution for applications such as proteomics for which pre-packed cartridges are not readily available.

### Wide Range of Applications

CapTite cartridges enable high-speed sample preparation, including: capturing and concentrating viruses, spores and cells; size exclusion for desalting and buffer exchange; reverse phase and ion exchange; protein enrichment or stripping; and thermal and/or chemical lysis. Four standard cartridge sizes are available, and custom sizes are available on request. The ability to pack the cartridges with any material provides unprecedented flexibility. Made of biocompatible PEEK®, the cartridges can be used with most biomaterials.

### Integration with Microfluidics Systems

The small size of CapTite cartridges allows easy integration into research setups and automated systems. The cartridges are fully compatible with LabSmith's entire line of CapTite capillary fittings and components, for breadboard-based construction of simple or complex setups.

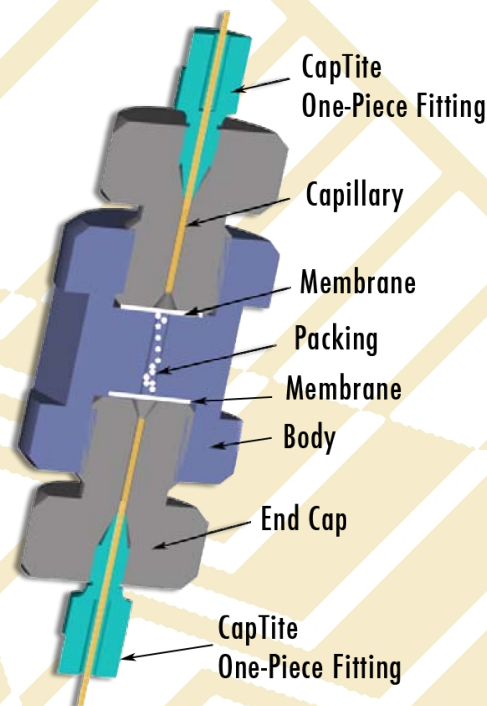


Figure 1. CapTite™ cartridges offer a simple, reusable and cost-effective sample preparation method.

# CapTite™ Refillable Cartridge Specifications



Table 1. CapTite™ Refillable Cartridge Specifications

Volume (µl)	ID (mm)	Wetted Length (mm)	OD (mm)	Overall Length (mm)
10	0.97	15	13	40
50	2.05	15	13	40
100	2.54	20	13	45
150	3.10	20	13	45

## Easy To Pack and Reuse

CapTite cartridges are packed using vacuum, with the material of your choice, and sealed with customizable membranes (Figure 2). To change to a different packing, just disassemble, clean the cartridge and reassemble with your new packing.

## Each cartridge includes:

- 1 PEEK® cartridge body
- 2 PEEK end caps (for 360µm capillary and/or 1/16" tubing)
- 2 PEEK one-piece fittings (for 360µm capillary and/or 1/16" tubing)
- 4 precut, 10 µm mesh polyester membranes.

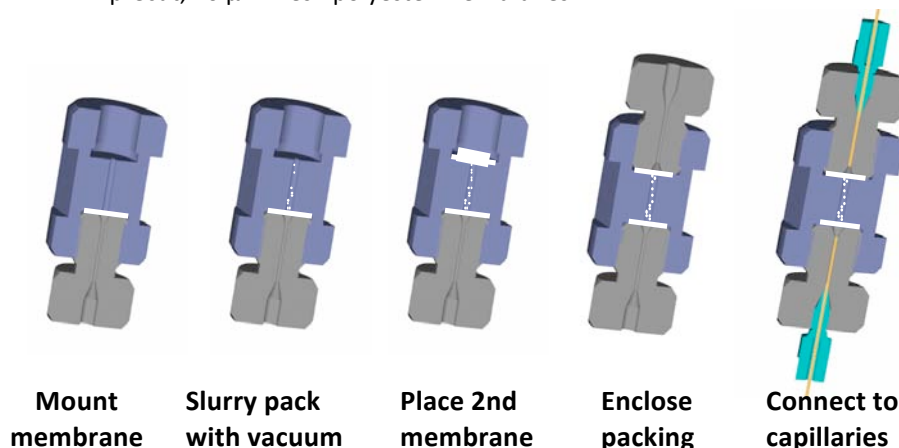


Figure 2. Refilling CapTite cartridges is fast and efficient, with minimal waste.

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