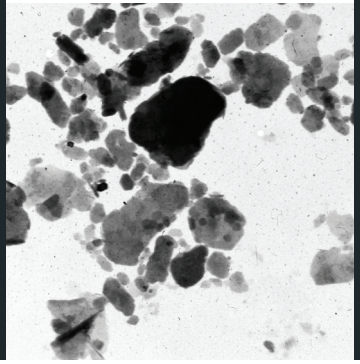
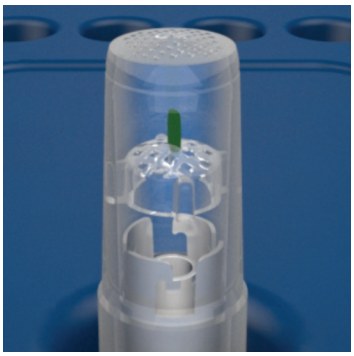
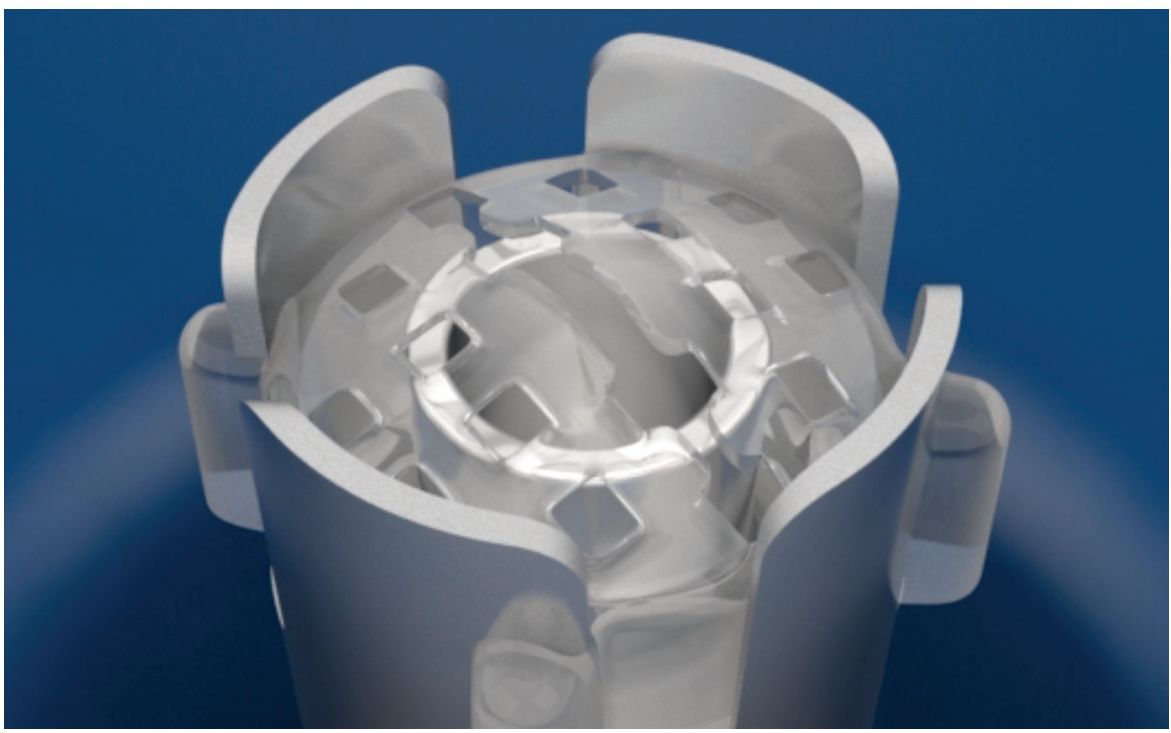


consistent sample preparation with almost
no direct handling of specimens and grids



mPrep™ System

for Specimen Preparation and Grid Staining



Electron
Microscopy
Sciences

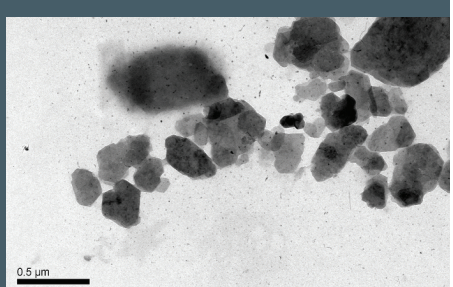
mPrep™ System for Specimen Preparation and Grid Staining

Overview

The mPrep™ System saves you effort while protecting and keeping track of valuable samples. The system features two types of purpose-built, microliter-volume capsules – one for specimens, the other for grids. Capsules attach to standard pipettors, which are used to conveniently deliver reagents in measured amounts.

Users get consistent sample preparation with almost no direct handling of specimens and grids. Once the tissue or grid is in its own, labeled capsule, you don't have to touch it again during processing. It is safe, easy-to-handle and clearly labeled. The small, enclosed capsule, reduces reagent consumption. The system adapts to any protocol for biospecimen preparation, grid staining or immuno-labeling. Multi-channel pipettors enable users to increase throughput, with virtually no extra effort. Read more to see how these cleverly designed capsules work!

APPLICATIONS: Materials Science



The mPrep System™ streamlines materials sample preparation. Use mPrep/s capsules to prepare specimens for TEM, SEM, and other analytical instruments that require sample sectioning. Use mPrep/g capsules to prepare specimens on TEM grids. mPrep™ System benefits include:

- **Embed and cross-section polymers, soft material, films and fibers**
- **Entrap small particles for easy handling**
- **Orient films and fibers for SEM preparation and imaging**
- **Prepare nanoparticles on grids**

mPrep/s™ Specimen Processing Capsules

mPrep/s™ capsules allow users to fix, dehydrate and embed specimens in a single vessel. They can be used in two ways. The first method is to entrap specimens in the bottom of the capsule using the removable, adjustable screen with the hand-held Insertion Tool (85010-03). The second method is to flex the screen open using the mPrep/s™ Workstation* (85010-06). With the screen opened, the user places a specimen in the screen and orients it to the desired position within the capsule. Once the screen closes on the specimen, it is held in place throughout fixation, embedding, and sectioning. No additional embedding molds are required, and the capsule itself easily fits in the microtome chuck. This capsule is highly recommended for transmission and scanning electron microscopy, but can also be used for any sample preparation.

mPrep/s™ capsules are available in storage boxes or in bulk. The hand-held Insertion Tool (85010-03), the Workstation* (85010-06), and additional recommended accessories for use with the mPrep/s™ capsule are located below.

* The Workstation is required to make use of the orientation feature of the mPrep/s™ screen.

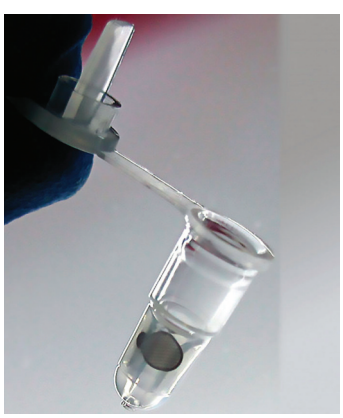
Capsule

Screen

Insertion Tool

Cat. No.	Description	Qty.
85010-01	mPrep/s™ Capsules in Storage Box: Capsules, 12 Screens, 8 Blank Label Sets	box
85010-02	mPrep/s™ Capsules (bulk)	96/pk
85010-03	mPrep/s™ Insertion Tool	each

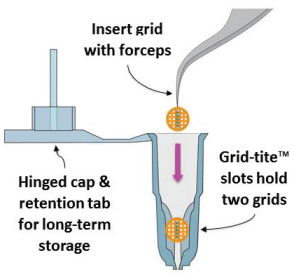
mPrep/g™ Grid Processing Capsules



Each capsule can hold one or two TEM grids securely for staining, immuno-labeling and labeled storage. Grids are protected from loss, misidentification, and damage. Grid-tite™ slots keep grids safe even if an open capsule is dropped.

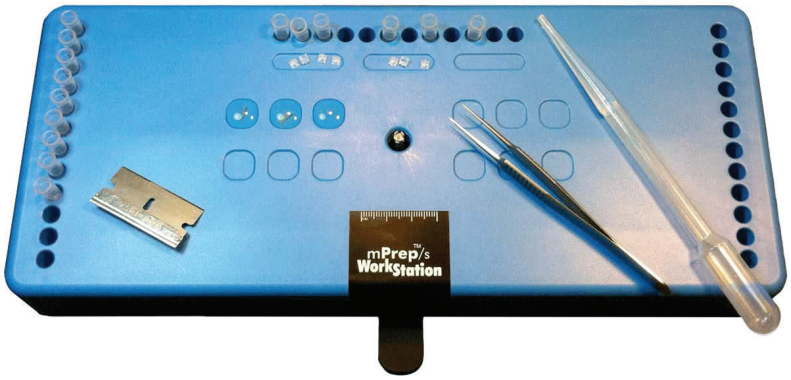
Grids require handling only twice: when inserted into capsules and when placed in the TEM.

Using a multi-channel pipettor, processing up to 24 grids simultaneously takes no more effort than a single grid. Reagent consumption is as little as 20µl per grid. The chance of grid damage or loss is greatly reduced using these capsules. See mPrep/g™ Pipettor Kits (85010-07 to 85010-10) and additional accessories below.



Cat. No.	Description	Qty.
85010-04	mPrep/g™ Capsules in Storage Box, 16 Capsules, 16 Blank Label Sets	box
85010-05	mPrep/g™ Capsules (bulk)	96/pk

Electron Microscopy Sciences



mPrep/s™ WorkStation for TEM and SEM

Everything you need to work efficiently while preparing your samples using mPrep/s™ capsules is easily accomplished with the mPrep/s™ WorkStation. Simply load the capsule onto the built-in insertion tool at the center of the workstation, detach the screen from the capsule, use the lever to open the screen and insert the specimen. Then release the lever and re-attach the capsule. Once loaded, the sample requires no additional handling – even for TEM embedding or SEM mounting.

The mPrep/s™ Workstation's polyethylene surface minimizes dulling of dissection tools and is fully immersible for for easy cleaning between uses. Molded into the surface are 12 dissection wells to organize your specimens and keep them wet if desired. At the back, 12 capsule wells and 3 screen holders conveniently hold these prior to use. On either side of the workstation, a total of 24 capsule wells can hold loaded capsules and keep them wet while loading into the channels of the pipettor. Single and multichannel pipettor kits are sold separately. Additional recommended accessories for use with the mPrep/s™ Workstation are located on the following page.

Features

- **Specimens may be oriented using several methods**
- **Streamlines specimen processing from dissection to reagent processing**
- **Once loaded in capsules, specimens are not touched again – even for TEM embedding or SEM mounting**
- **Dissect and load specimens wetted by buffers or fixatives**
- **Directly load capsules onto pipettor from Workstation**

Applications

- **Capsule-based Processing of Biological Tissue for TEM**
- **Biological tissues – fix and critical point dry (CPD)**
- **Bio tissue cryo-facing**
- **Polymer cross-section preparations**

Cat. No.	Description	Qty.
85010-06	mPrep/s™ Workstation	each

mPrep™ Pipettor Kits

Choose from either single- or multi-channel pipettor kits built around mPrep/s™ or mPrep/g™ capsules.

Single-channel kit includes: single channel 200 µl pipettor, one mPrep™ capsule pack of your choice and one pack of 96 pipette tips, size 10µl

Eight-channel kit includes: eight-channel 200 µl pipettor, one mPrep™ capsule pack of your choice and one pack of 96 pipette tips, size 10µl

Single-channel Kit

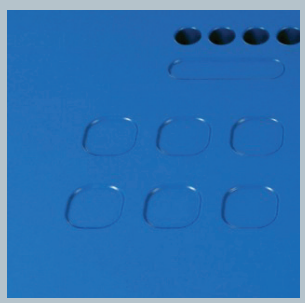
Cat. No.	Description	Qty.
85010-07	mPrep/g™ Pipettor Kit, Single Channel	kit
85010-08	mPrep/g™ Pipettor Kit, Multichannel	kit
85010-09	mPrep/s™ Pipettor Kit, Single Channel	kit
85010-10	mPrep/s™ Pipettor Kit, Multichannel	kit

Eight-channel Kit

Using the mPrep/s™ WorkStation

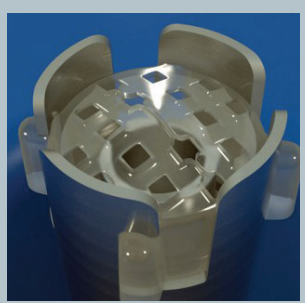
Prepare the specimen

- Trim and dissect on Workstation surface
- Use shallow wells to keep specimens organized
- Add water or fixative to wells during dissection



Load screen (and unoriented specimens)

- Insert mPrep/s™ screen into Workstation insertion tool
- Engage screen tabs into insertion tool flanges



Orient specimen – Back Pinch Method

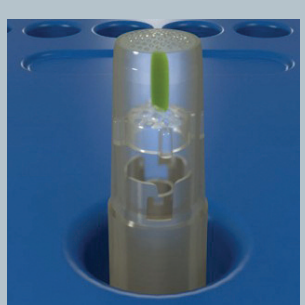
- Press Workstation lever to open screen
- Place back end of specimen into screen opening
- Release lever to pinch specimen

Encapsulate specimen

- Slide capsule down to hold specimen in place
- For Back Pinch Orientation method leave space above specimen

Remove capsule from Workstation

- Rotate capsule counter-clockwise to disengage screen from Workstation insertion tool
- Lift capsule off Workstation



Set aside encapsulated specimen

- Place capsule into a Workstation well
- Add fluids to wells to keep specimens wet
- Load capsules directly onto pipettor for reagent processing

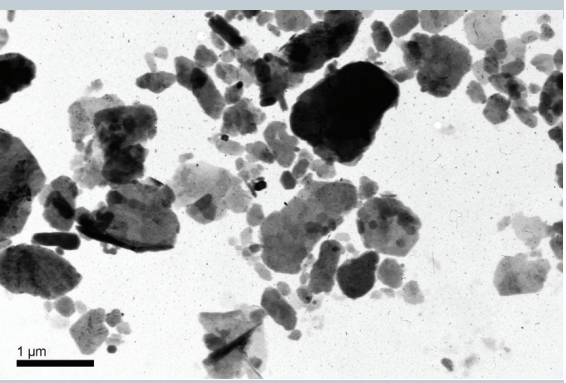
mPrep™ System

for Specimen Preparation and Grid Staining

APPLICATIONS:

Transmission Electron Microscopy (TEM)

Kidney (TEM)



Nanoparticles (TEM negative stain)

The mPrep System™ streamlines Transmission Electron Microscopy (TEM) sample preparation using a capsule based approach. Use mPrep/s capsules to fix, orient, embed, and section specimens. Use mPrep/g capsules to stain or immuno-label TEM grids.
The mPrep System™ efficiently produces quality results from every sample. Imagine this in your lab...

- **As few as two human touches from microtome to microscope – reduces damage and loss**
- **Grids and capsules labeled for easy tracking from start to storage**
- **Capsules attach to common lab pipettors for controlled reagent timing and minimal reagent consumption**
- **Parallel processing**
  - ***Stain from one to dozens of grids simultaneously using multi-channel pipettors***
  - ***Identical reagent timing***
  - ***Reduced tedium and labor costs***

mPrep™ System Accessories

(mPrep/s™ and mPrep/g™ compatible)

mPrep Filter-Couplers

85010-10, -11

Filter couplers prevent the introduction of damaging reagents into pipettors. They also improve the fit of mPrep/g™ capsules on some pipettors. Pack includes 16 filter couplers and a capsule storage box.

Available in two pore sizes:

1. Standard mPrep/f30™: nominal 30 µm pore size filter appropriate for most applications.
2. Extreme mPrep/f13™: nominal 13 µm pore size filter for use with biohazards and very aggressive reagents.

mPrep™ Tousimis® Capsule Holder

Holds up to 6 mPrep/s™ or mPrep/g™ capsules in Tousimis® CPD apparatus

85010-13

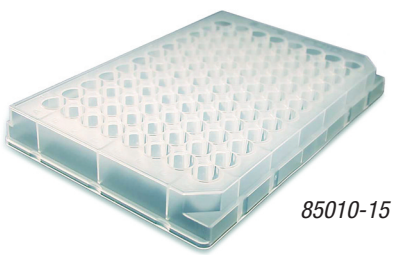
Reagent Reservoirs

Chemically resistant 15ml reservoirs, 50 per pack, HDPE

85010-14

Microwell Plates

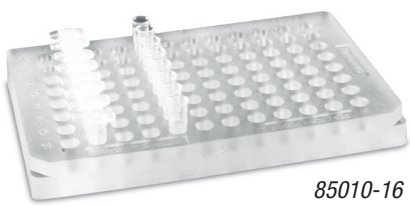
Chemically resistant 96-well plates, 10 per pack, polypropylene



85010-15

mPrep™/Bench

96-well silicone rack provides tight seal to capsule bottoms during incubations or transfer of fluid-filled capsules to ovens and incubators. Autoclavable.



85010-16

Cat. No.	Description	Qty.
85010-11	mPrep/f30™ Standard Filter-Couplers	16/pk
85010-12	mPrep/f13™ Extreme Filter-Couplers	16/pk
85010-13	Tousimis® Capsule Holder	each
85010-14	Reagent Reservoirs	50/pk
85010-15	Microwell Plates	10/pk
85010-16	mPrep™ Bench	each

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