

Use

Spectra/Por® *In Vivo* Microdialysis Hollow Fibers are not for human use. They are intended for laboratory research on animals.

1. When using the *In Vivo* Microdialysis Hollow Fiber for the first time, flush fibers with ethyl alcohol to remove the filling liquid. This may be performed by the following procedure:

Manually using a syringe equipped with a narrow gauge needle (no larger than 35 gauge), pass at least 1 ml of ethyl alcohol through the fibers. Remove alcohol by rinsing with deionized water or the perfusion solution of interest.

2. Store the used Spectra/Por® *In Vivo* Microdialysis Hollow Fibers in a vial filled with perfusion fluid.

Ordering Information

Part No.	Description
132294	Spectra/Por® <i>In Vivo</i> Microdialysis Hollow Fibers MWCO 13 kD & 6" long, 20/pkg

420-05754-000 Rev. 02 152906-1

Spectra/Por® *In Vivo* Microdialysis Hollow Fibers



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Introduction

Spectra/Por® *In Vivo* Microdialysis Hollow Fibers were developed for applications requiring *in vivo* recovery or dispensing of microquantities of biological materials within a localized section of a functioning organ of animals. This concept is an artificial blood vessel implanted within the tissue, to recover substances from or add to the organ. Animal metabolic experiments can be carried out by using radioisotope techniques in combination with analytical chemistry. There will be internal molecular or ionic permeation through the membrane and the tissue. This entire biological test can be conducted with less than a cubic millimeter of tissue.

The *In Vivo* Microdialysis Hollow Fibers are filled with a water-insoluble, alcohol-soluble liquid to keep the fibers open. This is to prevent fiber deformation during subsequent handling and to maintain the circular shape of the fibers during assembly of the hollow fiber devices. The filling liquid, called isopropyl myristate (IM), is removed with a small amount of ethyl alcohol. It should be noted that cellulose will not swell under the influence of ethyl alcohol.

Applications

- Intracerebral dialysis. Evaluation of transfers, such as catecholamines and neuropeptides in animal brain tissue.
- Microdialysis of intracellular adenosine.

A unique feature of the *in vivo* microdialysis technique allows the comparison of results from *in vitro* and *in vivo* experiments. Concentration of various compounds within the extracellular space can also be determined accurately.

Examples of perfusion fluids are Ringer's solution and artificial CSF.

Specifications

Material: Regenerated Cellulose

Fiber OD: 280 µm

Fiber ID: 200 µm

Fiber Working Volume: 5 µl per fiber

Fiber Flow Rate (ml/hr)

at 10" Hg: 3 ml/hr per fiber