

# Flocel

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## TEER Measurement System

The **Trans**Epithelial **E**lectrical **R**esistance (TEER) measurement provides a quick and easy evaluation of the integrity of the Blood-Brain Barrier model. The DIV-BBB model has a TEER closer to that found in vivo, >1000  $\Omega$ -cm<sup>2</sup> as opposed to the monolayer model that typically achieves a TEER of 200  $\Omega$ -cm<sup>2</sup>.

### Features:

- Impedance measurement at multiple frequencies.
- Low voltages, 60 millivolts maximum.
- Automatic multiplexing of multiple cartridges.
- Two versions, PCI card or PCMCIA card.

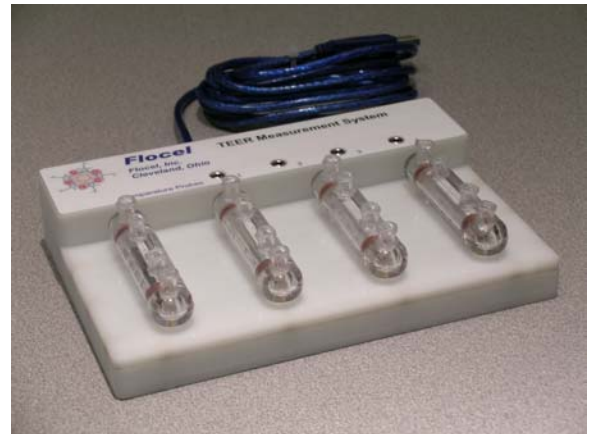
### Benefits:

- Characterize the resistance and capacitance of the barrier.
- Limits potentially damaging voltages to the barrier.
- Can handle up to 4 cartridges simultaneously.
- Can use either a desktop or laptop PC.

### Computer System Requirements

- IBM compatible computer, 400 MHz or faster
- Windows 98SE or higher
- 128 MB RAM (256 MB recommended)
- CD-ROM drive for installation
- One free USB port

The TEER Measurement System is sold with the measurement software, the required cable, and a mounting platform that can accommodate four DIV-BBB cartridges. The electrodes in the cartridge plug into the mating connectors in the platform. The system is shipped with four cartridges for initial evaluation.



### Cartridge Specifications:

Hydrophobic capillaries

Trans-capillary pore size

Number of hollow fibers

Total lumen internal volume

Total lumen internal surface area

Volume of extralumenal space (ECS)

Total hollow fiber area in ECS

Cartridges are delivered in a sealed bag, sterile and wetted with distilled water.

Accurel<sup>®</sup> PP Q3/2 (optionally pre-coated with ProNectin<sup>®</sup> F or Poly-D-Lysine)

nominal 0.2  $\mu$ m

19

0.0123 in<sup>3</sup> = 0.202 cm<sup>3</sup>

2.09 in<sup>2</sup> = 13.5 cm<sup>2</sup>

0.070 in<sup>3</sup> = 1.15 cm<sup>3</sup>

3.50 in<sup>2</sup> = 22.6 cm<sup>2</sup>

### Measurement Software - LabVIEW Application Program

The Measurement Software has been written as a stand-alone program based on LabVIEW. The User Interface, known as the Front Panel in LabVIEW, allows the researcher to apply a sine wave to the intrapithelial resistance barrier, measure and record data.

### Ordering Information

TEER Measurement System	\$2495
Measurement Software	\$2495
USB Cable	\$ 25

*Preliminary - Specifications subject to change*