

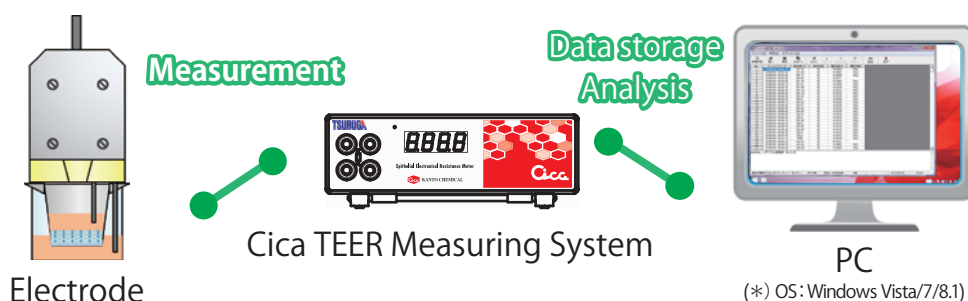
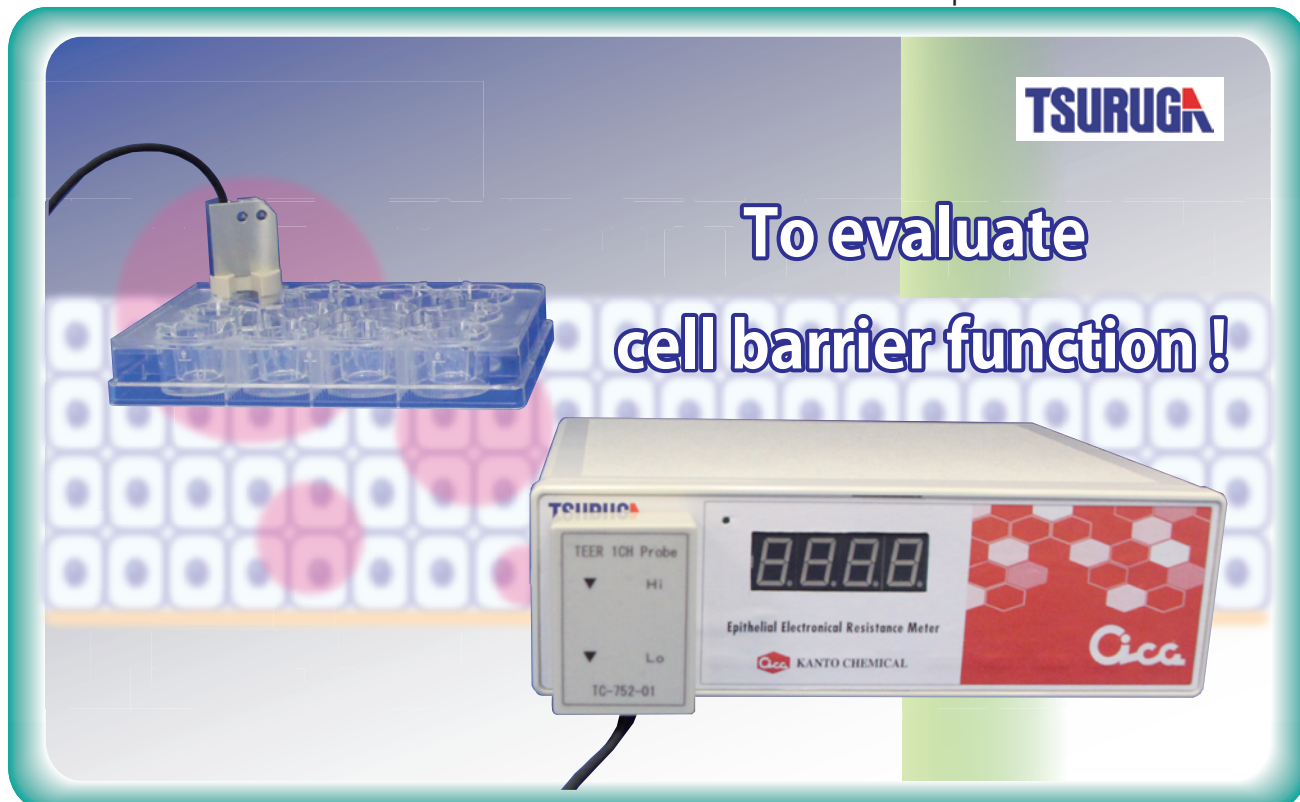
For ad-MED Vitrigel® Series

Cica TEER Measuring System



Kanto Reagents

※ TEER : Transepithelial Electro Resistance



※) Electrode and PC are sold separately.

Feature

- Stable measurement is possible.
- Supports data storage and analysis by personal computer.
- Compatible with temperature measurement by optional sensor.
- Access to inside of the insert is possible while measuring.
- **Corresponds to eye irritation test method "Vitrigel®-EIT method"**



Product No.	Product name	Qty. / Pk.	Description
49073-00	Cica TEER Measuring System	1	1 CH
49073-01	Electrode for Cica TEER Measuring System	1	For 12 wells, 1CH

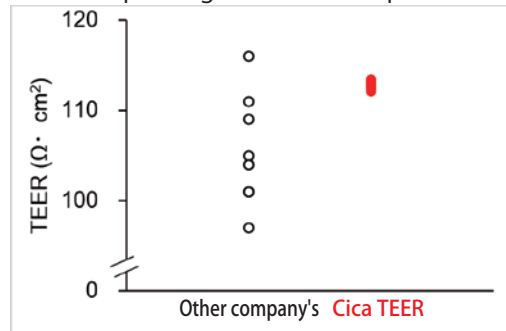
Stable measurement is possible.

We developed special electrode corresponding to ad-MED Vitrigel® series. Firmly into the insert by fixing, small changes in TEER can be accurately measured.

Electrode for ad-MED Vitrigel®

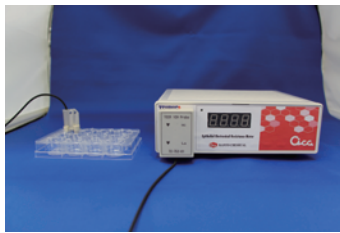


Distribution of TEER value when repeating the same sample 10 times



Supports data storage and analysis by personal computer.

It is possible to save and view data to the personal computer by the attached data transfer software. In addition, it is also possible to process and analyze with spreadsheet software etc.



※ Personal computer is required. (OS : Windows Vista/7/8.1)

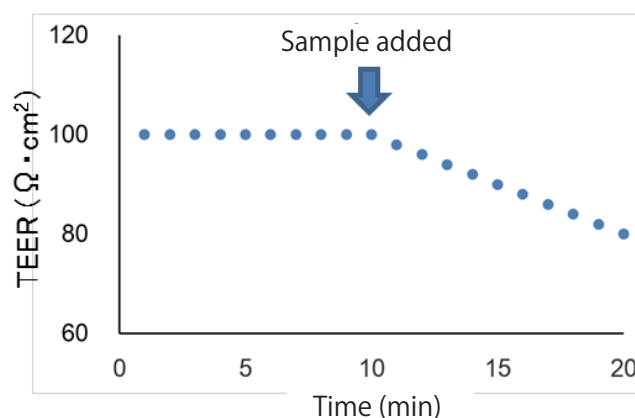
Compatible with temperature measurement by optional sensor.

TEER value varies depending on the temperature of the measurement object. You can monitor the temperature change of the sample by installing a temperature sensor under measurement.

※ Please contact us for the corresponding temperature sensor.

Access to inside of the insert is possible while measuring.

Samples can be added into the insert while measuring the TEER value. You can monitor the influence of samples on cells in real time.



Corresponds to eye irritancy test method "Vitrigel®-EIT method"

"Vitrigel®-EIT method" is a test method to judge the presence or absence of eye irritancy of the chemical substance by analyzing the temporal change of the TEER value of corneal model in ad-MED Vitrigel® after dropped it.

It is used for safety evaluation of cosmetics, shampoo and eye drops.

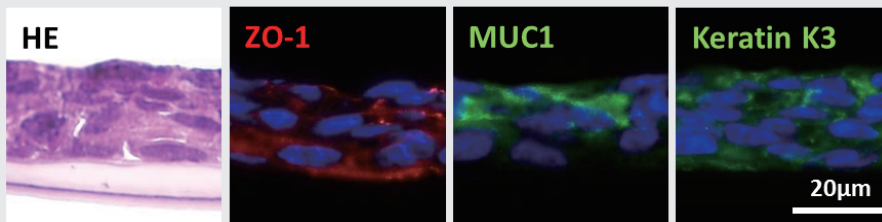
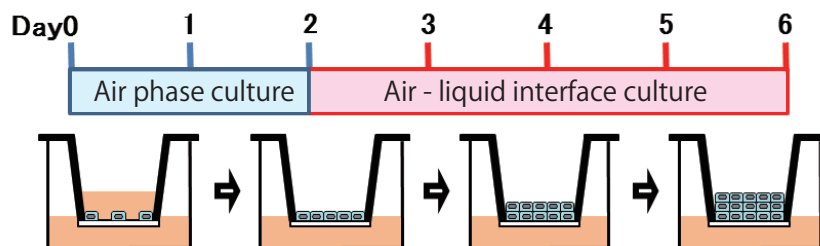
【Method】

① Preparing human corneal epithelium model.

Day 0 Seeding of Human corneal epithelial cell (HCE-T) on ad-MED Vitrigel®.

Day 2 Starting Air - liquid interface cultivating

Day 6 Completing Human corneal epithelium model.



Staining image of cross-sections

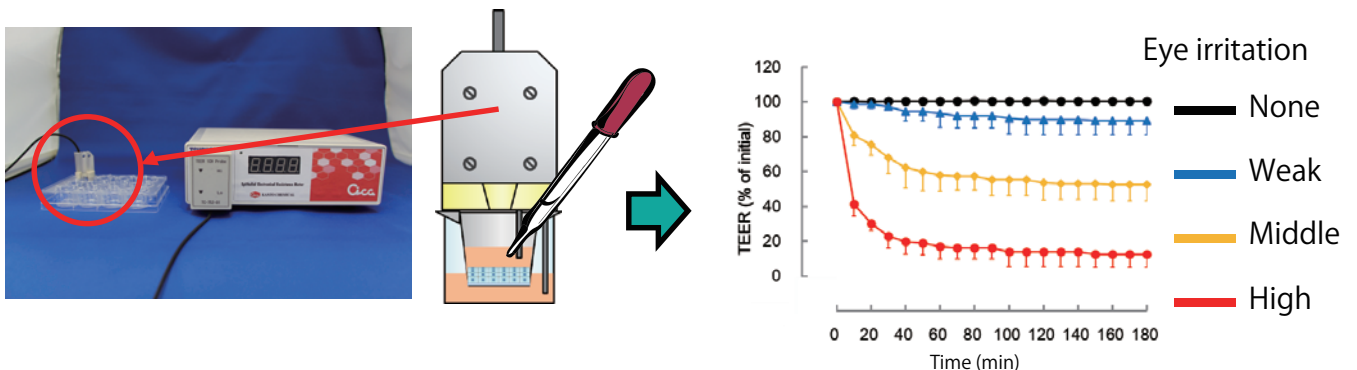
HE staining and fluorescence immunostaining image of human corneal epithelium model.

ZO-1 : Tight junction protein-1

MUC1 : Cell surface associated mucin

Keratin K3 : Type II cytokeratin found in the corneal epithelium together

②Exposing test substance to cornea model. ③Measuring TEER value for 3 minutes.



【References】

- Takezawa T, Nishikawa K, Wang PC. 2011. Development of a human corneal epithelium model utilizing a collagen vitrigel membrane and the changes of its barrier function induced by exposing eye irritant chemicals. *Toxicol. in Vitro.* **25**, 1237-1241.
- Yamaguchi H, Kojima H, Takezawa T. 2013. Vitrigel-eye irritancy test method using HCE-T cells. *Toxicol Sci.* **135**, 347-55.
- Yamaguchi H, Kojima H, Takezawa T. Predictive performance of the Vitrigel -eye irritancy test method using 118 chemicals. *J Appl Toxicol.* [Epub ahead of print]

Related products

ad-MED Vitrigel®



Cell culture insert
using a collagen Vitrigel® membrane
appropriate for reconstruction of tissue models.

Feature

- Collagen Vitrigel® membrane composed of high-density collagen fibrils equivalent to connective tissues *in vivo*.
- Appropriate for reconstruction of tissue models.
- Excellent visibility for microscopy.
- Designs for easier handling.
- High adhesive property of animal cells.
- Two different types of cells are able to culture on the both surface.

Product No.	Product Name	Qty. / Pk.
08360-96	ad-MED Vitrigel®	1 Kit (12wells)

Sterilize with γ -rays in 12-well multiwell plate

Vitrigel® is a registered trademark of National Agriculture and Food Research Organization (NARO). This product is supported by Agri-Health Translational Research Project from the Ministry of Agriculture, Forestry and Fisheries of Japan.

Medium for corneal model

Feature

- Ready-to-Use (supplemented with all necessary supplements)
- Optimized for corneal modeling using HCE-T cells.

Product No.	Product Name	Qty. / Pk.
25997-96	Medium for corneal model	200 mL



Cica KANTO CHEMICAL CO., INC.
REAGENT DIVISION
East Muromachi Mitsui BLDG, 2-1, Nihonbashi Muromachi 2-chome,
Chuo-ku, Tokyo, 103-0022, JAPAN
Telephone +81-3-6214-1092
Telefax +81-3-3241-1053