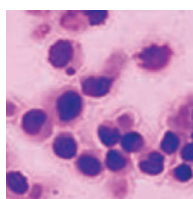


# High precision Mylc cells (artificial human leukocytes) change the future of drug development and research of infectious diseases!

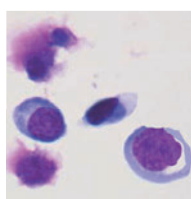
You can evaluate the efficacy and safety, essential for the development of drugs and cosmetics more accurately, efficiently and quickly at lower cost than ever. High precision human leukocytes stably supplied through cutting-edge technologies will strongly drive the development of drugs and cosmetics and research of infectious diseases in future.

**Mylc cells are:** Human dendritic cells produced through regenerative medicine technology. Controlled in an immature (non-stimulated) state ideal for various evaluations and researches.



Mylc cells (immature dendritic cells)

Uniform differentiation stage and highly homogeneous



Conventional dendritic cells for experiments

Cells with different differentiation stages are present

### Homogeneous blood cells with identical genetic information

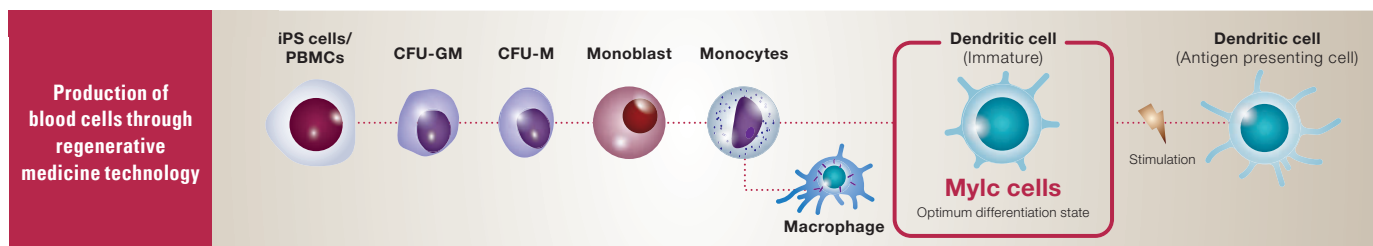
The same genetic information and conditions can be always reproduced because they are produced in our laboratory. This feature contributes to a drastic improvement in the accuracy and applicability of pharmaceutical evaluation.

### We can control to the optimum differentiation stage

Differentiation stage (maturity) can be minutely controlled with our high level of regenerative medicine technologies and product control. Research and evaluation of high accuracy are available.

### Stable mass-production and supply are possible

You can obtain blood cells in ideal conditions any time. You can conduct research and development and efficacy evaluation with no delay and accelerate development.



## ◆ Our products can be used in various evaluations of drugs and functional materials such as food and cosmetics and drastically improve the reliability and speed.

### Efficacy evaluation

**Measuring cell response precisely, we can efficiently facilitate the evaluation.**

By quantifying transmitters released from Mylc cells after the addition of test compounds, cell responses can be concisely measured with high precision. The cells with the same genetic information can be used any time and the results are accurate in sequential tests.

In addition, uMylc, with specific characteristics of diseases, is attracting attention as a promising pharmacological study method. In many ways, high precision blood cells greatly accelerate the development of pharmaceutical products.

#### Evaluation of drug effects and efficacy

We can measure the response of cells to drugs and functional materials with high precision. Speedy and reliable evaluation greatly accelerates the development of drugs and materials.

### Safety evaluation

**On various studies based on alternative methods to animal testing, we can greatly reduce the time and cost.**

In test methods based on alternative methods to animal testing, there used to be various challenges based on the differences between the cells used\* and normal human in vivo cells, such as low accuracy of results, high cost, and lengthy time. MiCAN's new method using only pure myeloid cells derived from iPS cells can quantify transmitters released by stimulation. This method drastically increases the accuracy of test results and allows a wide variety of evaluation designs. The time and cost for measurement are greatly reduced. This is an epoch-making evaluation service contributing to fast production development.

\*Cell lines represented by THP-1, Mono-Mac-6, etc.

#### Skin sensitization assay

For the standard 10 compounds of the h-CLAT (P1 - N10), similar results to those in model cells (LLNA) can be obtained. Time and cost can be drastically reduced because our method is free from the time-consuming procedures and confirmation required in the h-CLAT.

#### Pyrogen test

Our method shows similar sensitizing property and stability to in vivo cells compared with those using existing cells (Mono-Mac-6).

### Wide variety of evaluation designs are available

- Want to compare the degrees of responses to drugs in humans with sensitive skin.
- Want to accurately determine response patterns in people who have idiosyncrasies.
- Want to advance development of drugs quickly by measuring drug effect in each evaluation.
- Want to accurately evaluate and compare the effects of drugs under identical conditions.

## ◆ 3 different types of the genetic backgrounds to meet demands.

You can select the base cells (3 types) and genotype of white blood cells (HLA, etc.).  
You can also customize the cells from provided blood (uMylc).

### aMylc

#### Human peripheral blood mononuclear cells

Showing in vivo-like characteristics and reactions.

### iMylc

#### iPS cell-derived blood cells

Having standardized genetic background.  
Standard reactions can be elicited.

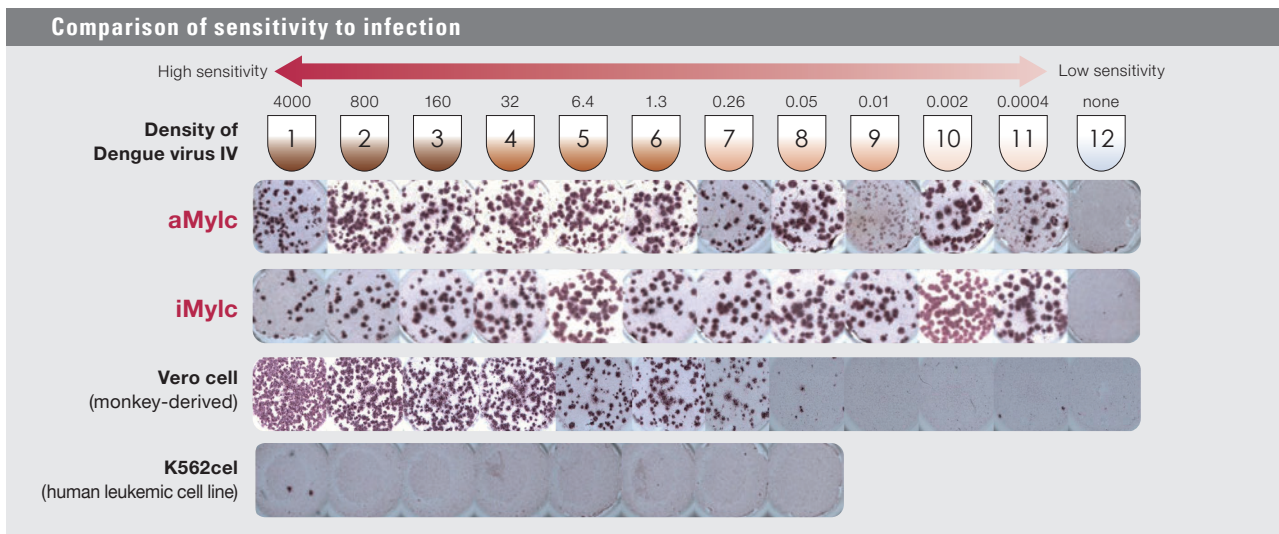
### uMylc

#### Customization using provided blood

Blood cell materials with characteristics of the donor can be prepared.

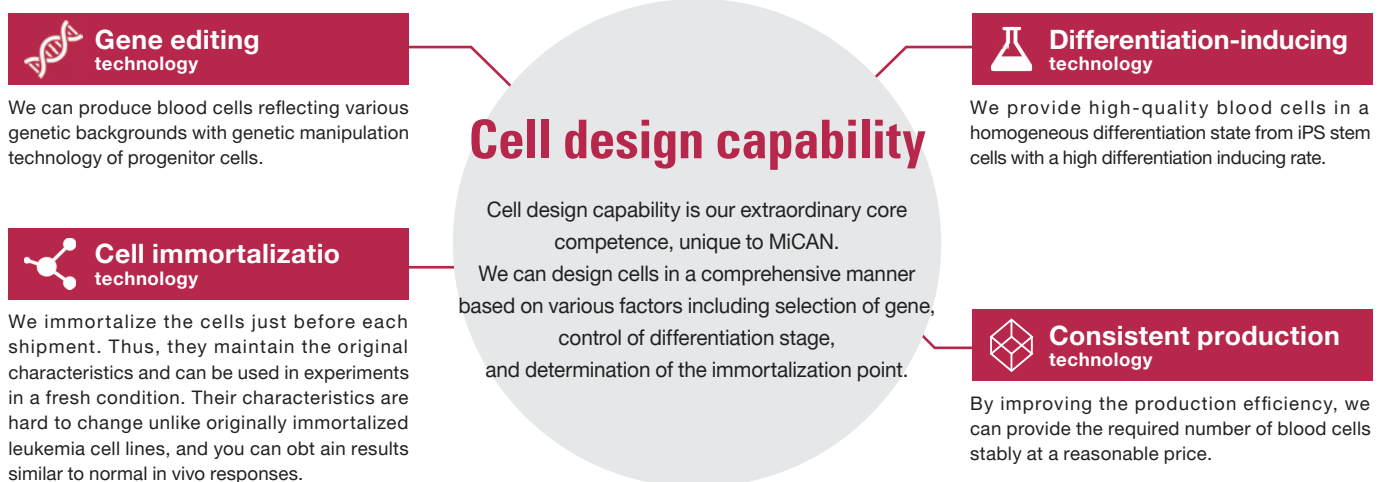
## ◆ Mylc's high sensitivity and accurate results strongly drives research of infectious diseases.

Mylc strongly supports research with high sensitivity to infection and accurate results compared with conventional research materials.



## ◆ Our integrated technologies are the driving force behind our blood cells development by regenerative technology.

Our advanced technology and experience are the essentials of our blood production.



### Evaluation and research in a common laboratory with Kyoto University

Our headquarters and research laboratory are located in Kyoto-University Katsura Venture Plaza, where Kyoto University nurtures the creation of new businesses utilizing new ideas/technologies and intellectual properties.



- Patent application for non-stimulated dendritic cells for research of viruses (Second product)
- Adopted for the Economic Gardening Support Grant supported by Kyoto Industrial Support Organization 21
- Certified as Management of Wisdom by the Kyoto Chamber of Commerce and Industry (2018)

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