MiCAN

MyIc-SRIPs Evaluation Kit (Dengue virus)

MyIc-SRIPs Evaluation Kit (Dengue virus) can be safely used to assess dengue virus infection and antibody-dependent enhancement of infection (ADE) without using live virus. Evaluation can be started immediately after opening the kit without cell culture.

What is the iMyIc cell

Induction of Immortalization Myeloid cells from iPS cells. It can be used for research as a host cell for various viruses.

iMyIc

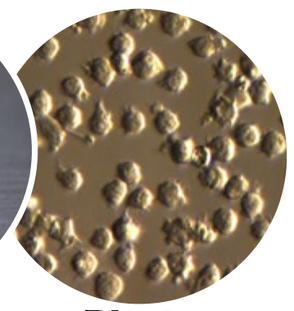
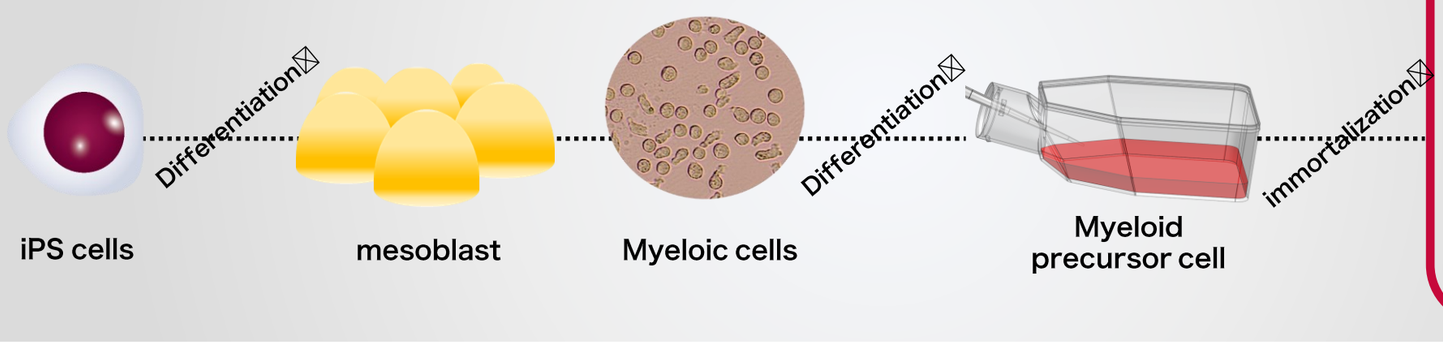


Photo micrograph

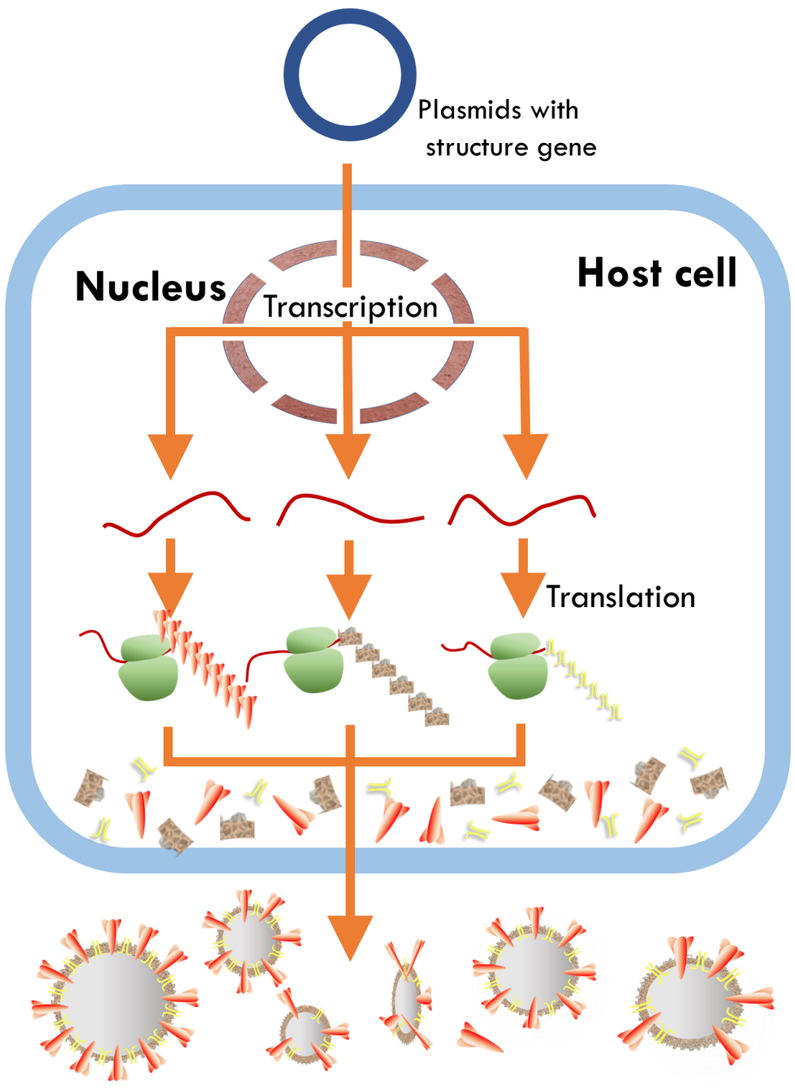
Induction of iMyIc cells from iPS cells



What is the DENV-SRIPs

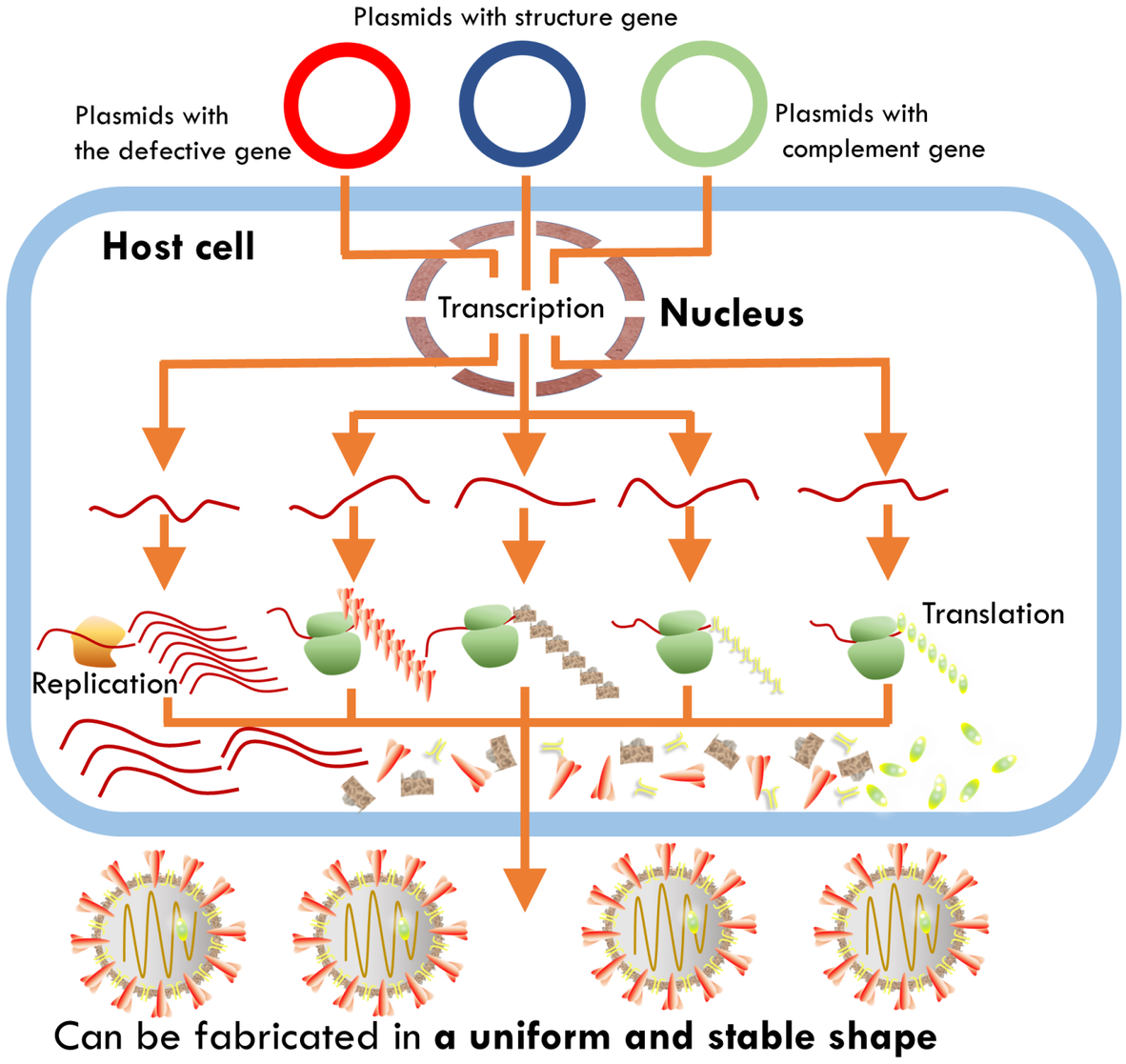
SRIPs is a pseudo-virus of new technology. Using SRIPs enables safe virus research. However, general pseudo-viruses differ in shape and size as shown in the lower right figure. DENV-SRIPs are single-infectious virions that have the same outer membrane structure as the virus. In particular, it is ideal for assessing virus intrusion.

VLP (virus like particles)



Various shapes due to lack of contents

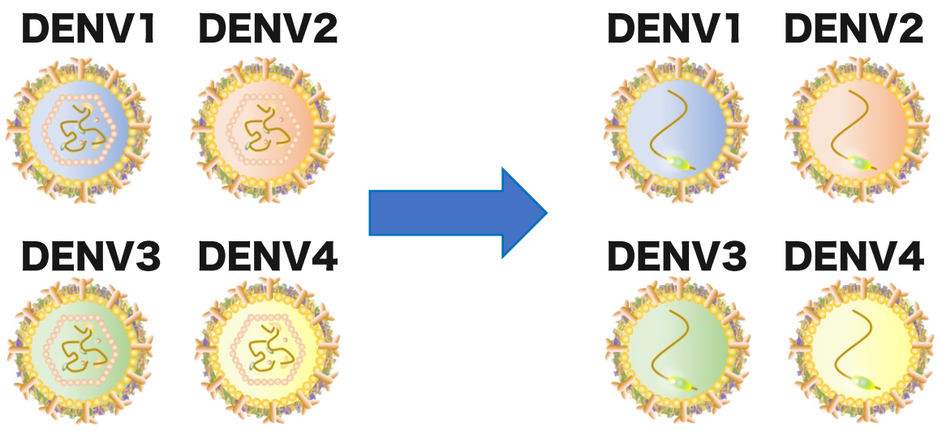
SRIPs (single-round infectious particles)



Can be fabricated in **a uniform and stable shape**
→ Closer to the virus

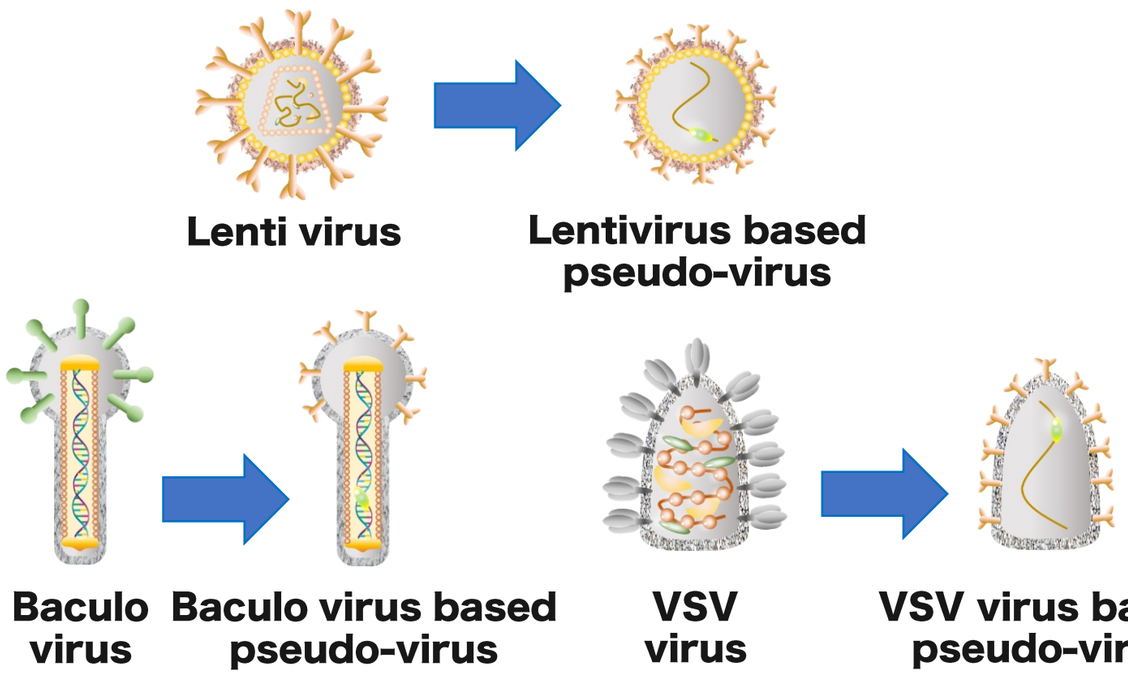
Single-Round Infectious Particles (SRIPs) have the same viral outer membrane as the actual virus, so it is possible to evaluate the actual viral invasion.

DENV-SRIPs are single infectious viral particles (SRIPs) against dengue virus generated by this method. This kit contains all SRIPs of four dengue virus serotypes (DENV1-DENV4).
Safe and rapid evaluation of dengue virus research.

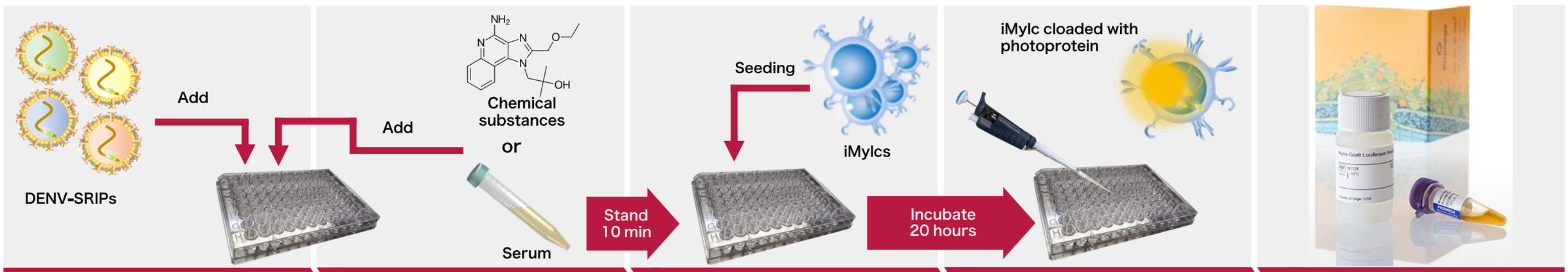


Dengue virus　　DENV-SRIPs

Creation methods of common pseudo-virus:
The protein part involved in virus invasion is introduced into a safe virus and used as a pseudovirus.



Evaluation methods



STEP 1

Add DENV-SRIPs

Add DENV-SRIPs to 96 Well Plate.

STEP 2

Add specimen

Add specimen(chemical substances of Serum) to 96 Well plate and Stand 10 min.

STEP 3

Seeding iMylcs

Seeding Mylc to 96 Well plate and Incubate 37℃ 5%CO_2 20 hours.

STEP 4

Lysate preparation

Preparate Lysate from Mylc and Add luminescent substrate.

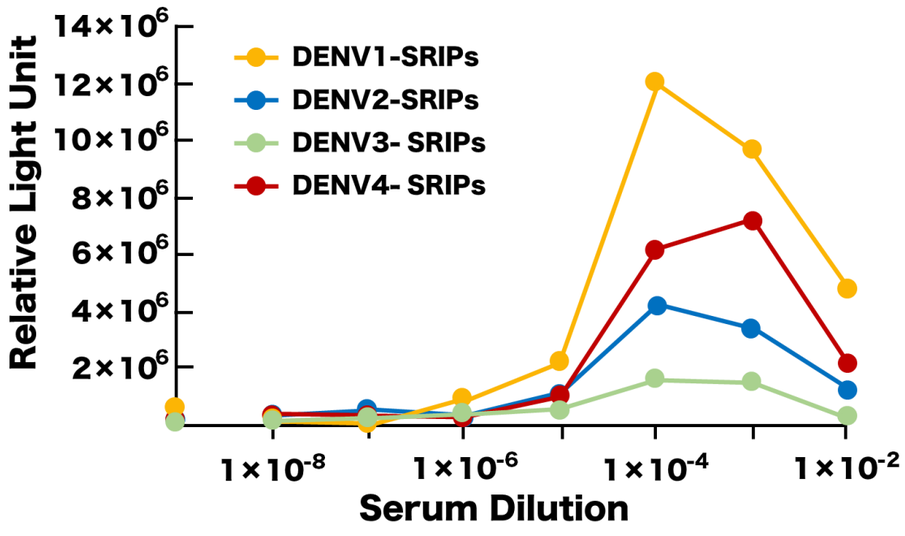
STEP 5

Luminescent Assay

Measure the luminescence intensity using the luminoassay kit as below.

Promega
Nano-Glo® Luciferase Assay Buffer
#N1110

Example test



Evaluation example: Results of ADE evaluation using serum from healthy subjects with a history of Dengue virus infection.

After opening the kit, mix DENV-SRIPs and serum, then add iMylcs. After 20 hours prepare the lysate and perform the luminoassay. Serum was evaluated at 10-fold dilutions from 100-fold dilution ($1x10^{-2}$) to 100 million-fold dilution ($1x10^{-8}$).

At 10,000-fold dilution, DENV1-SRIPs, etc. showed a higher luminescence intensity, indicating that a large amount of virus entered the cells and the infection was enhanced.

Products for DENV SRIPS

Products	Cat. code	Product content
Mylc-DENV ADE Kit (All in One)	M01MD503010	iMylc cells Medium for maintain 100mL Dengue type I SRIPs Dengue type II SRIPs Dengue type III SRIPs Dengue type IV SRIPs T25 flask 1 piece
Mylc-DENV ADE Kit (D1-SRIP)	M01MD503011	iMylc cells Medium for maintain 100mL Dengue type I SRIPs T25 flask 1 piece
DENV SRIPs (D1, D2, D3, D4 set)	MSRIPD0	Dengue type I SRIPs Dengue type II SRIPs Dengue type III SRIPs Dengue type IV SRIPs
DENV SRIP (D1)	MSRIPD1	Dengue type I SRIPs
DENV SRIP (D2)	MSRIPD2	Dengue type II SRIPs
DENV SRIP (D3)	MSRIPD3	Dengue type III SRIPs
DENV SRIP (D4)	MSRIPD4	Dengue type IV SRIPs

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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