Ceglu™ cultureware

Chemically defined matrix Ceglu™ pre-coated plate for easier and reliable stem cell culture

High Safety & Stability

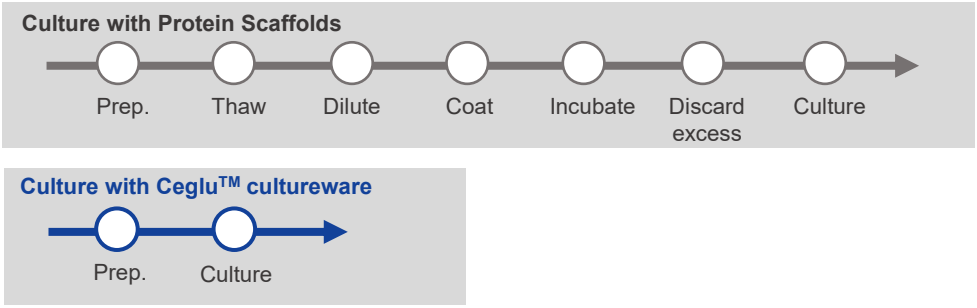
Fully chemically defined composition with no animal-derived components
Long-term stability at room temperature

Ready-to-use

Ceglu™ cultureware is pre-coated with Ceglu™ and sterilized, Making them ready for immediate use in stem cell culture

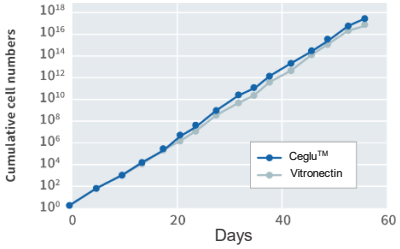
Reduced Experimental Burden, Improved Reproducibility

Eliminates need for manual coating of culture containers, simplifying experiments and enhancing reproducibility.



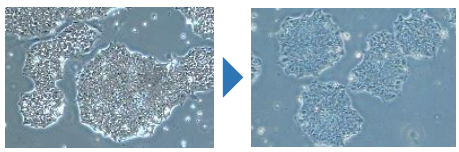
Ceglu™ features

Long-term Culture of iPSCs*



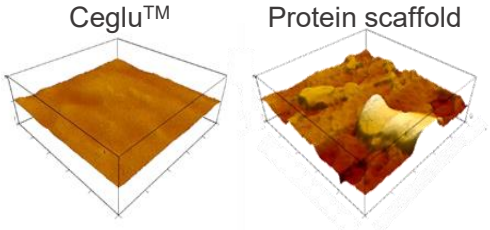
*Tested for MSCs and ADSCs, Data available upon request

Room Temperature Stability



Ceglu™ Storage Test (iPSCs)

Uniform Cell Culture Surface*



*Surface observation by AFM in water

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Application examples

High-efficiency generation of iPSCs

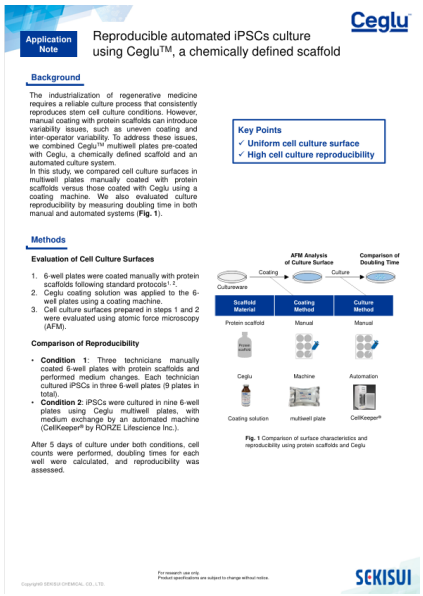
- ✓ Reduced viral vector dosage
- ✓ Early elimination of viral vectors
- ✓ Generation of high-quality iPSCs

Consistent iPSCs maintenance and differentiation on a single matrix

- ✓ Differentiation into three germ layers, hepatoblasts, neural progenitor cells, astrocytes, cardiomyocytes, and more
- ✓ Comparable to protein-based matrices

Enhanced reproducibility in automated iPSCs culture workflows

- ✓ Uniform cell culture surface
- ✓ High cell culture reproducibility with automated workflows


Application Note

Reproducible automated iPSCs culture using Ceglu™, a chemically defined scaffold

Background

The industrialization of regenerative medicine requires a reliable culture process that consistently reproduces stem cell culture conditions. However, manual coating with protein scaffolds can introduce variability issues, such as uneven coating and inter-operator variability. To address these issues, we combined Ceglu™ multiwell plates pre-coated with Ceglu, a chemically defined scaffold and an automated culture system.
In this study, we compared cell culture surfaces in multiwell plates manually coated with protein scaffolds versus those coated with Ceglu using a coating machine. We also evaluated culture reproducibility by measuring doubling time in both manual and automated systems (**Fig. 1**).

Key Points
- ✓ Uniform cell culture surface
- ✓ High cell culture reproducibility

Methods

Evaluation of Cell Culture Surfaces

1. 6-well plates were coated manually with protein scaffolds following standard protocols[1,2].
2. Ceglu coating solution was applied to the 6-well plates using a coating machine.
3. Cell culture surfaces prepared in steps 1 and 2 were evaluated using atomic force microscopy (AFM).

Comparison of Reproducibility

- **Condition 1**: Three technicians manually coated 6-well plates with protein scaffolds and performed medium changes. Each technician cultured iPSCs in three 6-well plates (9 plates in total).
- **Condition 2**: iPSCs were cultured in nine 6-well plates using Ceglu multiwell plates, with medium exchange by an automated machine (CellKeeper® by RORZE Lifescience Inc.).

After 5 days of culture under both conditions, cell counts were performed, doubling times for each well were calculated, and reproducibility was assessed.

AFM Analysis of Culture Surface
Comparison of Doubling Time
Coating
Culture
Cultureware

Scaffold Material	Coating Method	Culture Method
Protein scaffold	Manual	Manual
Ceglu	Machine	Automation
Coating solution	multiwell plate	CellKeeper®

Fig. 1 Comparison of surface characteristics and reproducibility using protein scaffolds and Ceglu

For research use only.
Product specifications are subject to change without notice.

Example of application note

A wide range of application notes is available. For more details, please visit our WEB or contact distributor.

Order information

Products	Cat. No.	Package	Price	Description
Ceglu™ multiwell plate (6-well)	ASPL060001	1 box (10 plates)	250 USD	Sterilized
Ceglu™ multiwell plate (96-well)	ASPL960001	1 box (10 plates)	440 USD	Sterilized
Ceglu™ dish (100 mm)	ASD1000001	1 box (10 plates)	230 USD	Sterilized

Research use only. For inquiries regarding clinical applications, please contact us directly.

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