Maintenance medium for human iPS cells

ciKIC™ iPS medium

NEW!!

Feeder-free medium for human iPS cells

The culture of human iPS cells (hiPSCs) requires frequent medium exchange, therefore the increase of workload and cost are seen as a serious problem. We developed new culture medium that can skip medium exchange on weekends and culture hiPSCs stably.
ciKIC™ iPS medium supports your regenerative medicine research in the future.

Advantages

- **Low-protein & Albumin-free**
- **Weekend-free cell culture**
- **Single cell passaging**
- **High growth rate and stable pluripotency**

Product Information

Product name	Package	Storage	Product No.
ciKIC™ iPS medium	1kit (for 250 mL) Basal medium + Supplement Set	Basal medium : Store at 2 - 8°C Supplement Set : Store at -20°C	08371-13

★ This product was developed by technology transfer from Kyoto University, institute for integrated Cell-Material Sciences (iCeMS).
★ This product is for research use only. Do not use for human or animal diagnostic or therapeutic uses.

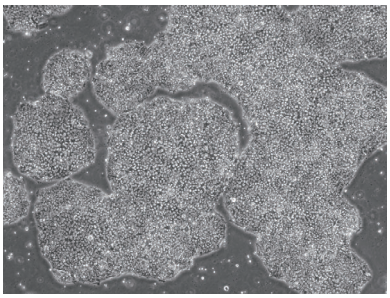
Kanto Chemical Co., Inc.

Application

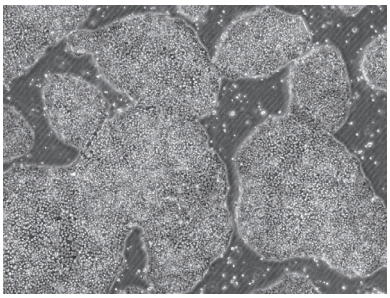
Morphology

■ Phase contrast image of iPS cells 7 days in culture

253G1



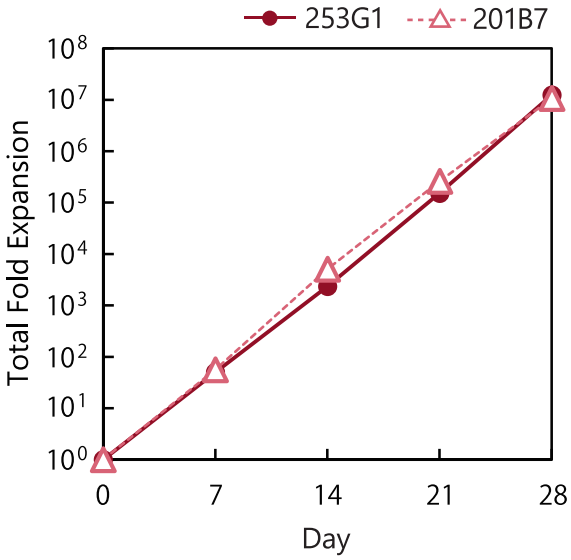
201B7



200 µm

Cell Growth

■ Cell growth rate

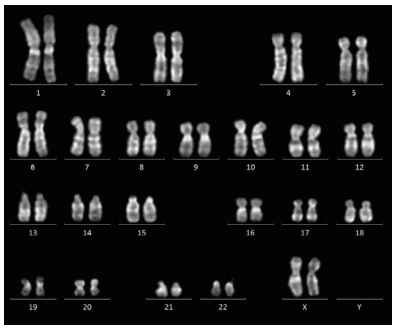


Normal hiPSCs morphology was observed in ciKIC™ iPS medium cultures, and ciKIC™ iPS medium supported stable high growth rate of hiPSCs.

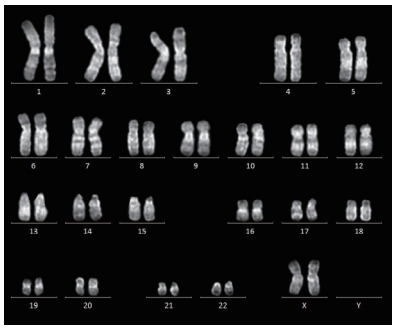
Karyotype

■ Karyotype analysis by Q-band

253G1



201B7



n=20 (253G1, 201B7)

hiPSCs cultured in ciKIC™ iPS medium showed a normal karyotype.

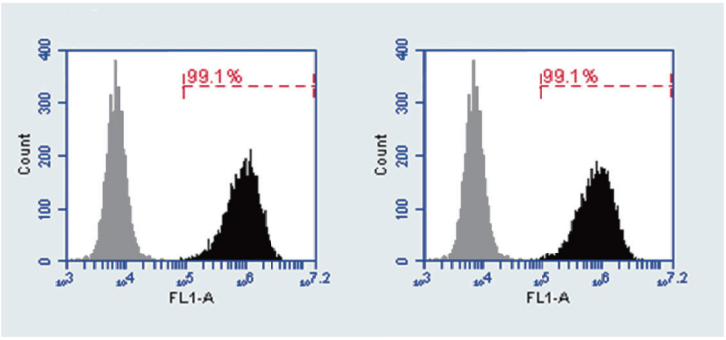
Undifferentiation

■ Flow cytometric analysis

＊Expression of undifferentiated marker was assessed by immunofluorescent stain and flow cytometer.

1st Ab ⋯ 10 μg/mL anti TRA-1-60, anti SSEA-4
2nd Ab ⋯ 2 μg/mL Alexa488 goat anti mouse IgG/IgM

TRA-1-60　　SSEA-4



Black : undifferentiated marker
Gray : Negative control
hiPSCs : 253G1

hiPSCs cultured in ciKIC™ iPS medium expressed undifferentiated markers.

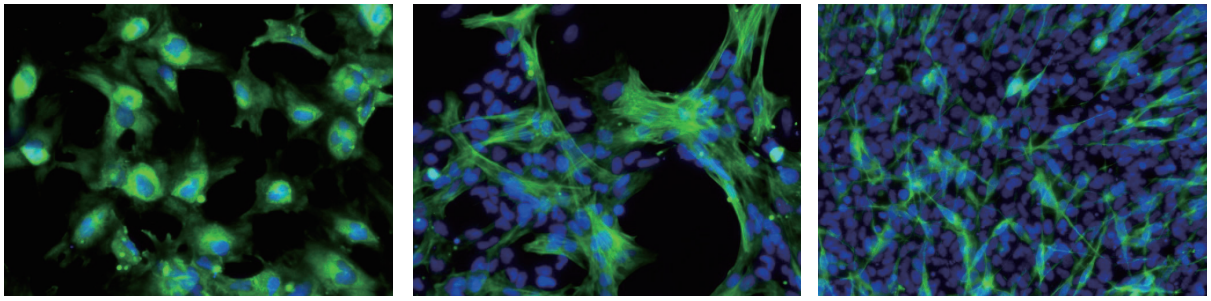
Pluripotency

■ Immunofluorescent staining images of iPSCs after differentiation

＊Embryoid bodies (EBs; using 253G1) were formed by floating culture. Then, EBs were transferred to gelatin-coated plate, continued culture and spontaneously differentiated.

1st Ab ⋯ 5 μg/mL anti AFP, 1 μg/mL anti α-SMA, 2 μg/mL anti βIII-tubulin
2nd Ab ⋯ 2 μg/mL Alexa488 goat anti mouse IgG/IgM

AFP/Nucleus (Endoderm)　　α-SMA/Nucleus (Mesoderm)　　βIII-tubulin/Nucleus (Ectoderm)



100 μm

hiPSCs cultured in ciKIC™ iPS medium differentiated into three germ layers.

Product Specification

▼ Basal medium

▼ Supplement Set

■ Components

ciKIC™ iPS Basal medium : 1 bottle (250 mL)

ciKIC™ iPS medium Supplement Set

Supplement 1 : 1 tube (1 mL)

Supplement 2 : 1 tube (20 µL)

■ Storage

ciKIC™ iPS Basal medium : Store at 2 - 8°C

ciKIC™ iPS medium Supplement Set : Store at -20°C

■ Note

- Add Supplement 1 and 2 to Basal medium before use.
- Store at 2 - 8 °C in the attached aluminum package and use within 2 weeks after preparation of medium.

＊Contains Xeno-free components only.

＊Suitable for culturing on iMatrix-511 by pre-mix method or pre-coating method.

＊Enable single cell passaging by adding ROCK inhibitor (Y-27632).

＊Not need to add bFGF.

＊We recommend using ciKIC™ iPS medium for transfer from on feeder culture.

Schedule of Medium Exchange

P : Passage, ○ : Medium exchange

	Thu.	Fri.	Sat.	Sun.	Mon.	Tue.	Wed.
Condition 1	P	○	—	—	—	○	○
Condition 2	P	○	—	—	○	○	○

⇒ Skip medium exchange on weekends (max 3 days in a row) .

Note: Select Condition 1 or Condition 2 depending on the cell line.
It confirmed that 253G1 and 201B7 can be cultured normally under Condition 1 and Condition 2.

Reference

Yasuda, Shin-ya, et al., 2018, Chemically defined and growth-factor-free culture system for the expansion and derivation of human pluripotent stem cells. *Nature Biomedical Engineering* 2, 173-182

Kanto Chemical Co., Inc.
REAGENT DIVISION

2-1, Nihonbashi Muromachi 2-chome, Chuo-ku,
Tokyo, 103-0022 JAPAN

E-mail：reag-info@gms.kanto.co.jp
HP：https://www.kanto.co.jp/english/

May, 2019