STEMUP™

ES / iPS cell culture medium supplement

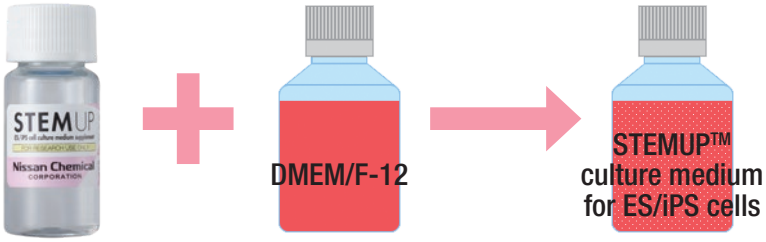
STEMUP™ is a high-performance and cost effective supplement for undifferentiated ES/iPS cell culture. It can be easily mixed with DMEM/F-12 basal media to yield a 2D cell culture medium. STEMUP™ medium can be used in the same way as conventional feeder-free media.

Features

- **Feeder-free**
- **Albumin-free and xeno-free**
- **Minimum growth factors → cost effective and stable performance**
- **Storageable for a month (up to 6 weeks) in a refrigerator after preparing a complete culture medium**
- **Possible for cryopreservation of a complete culture medium**

Method

Adding STEMUP™ to a commercially available DMEM/F-12 basal medium, a complete culture medium for ES/iPS cells can be easily prepared.

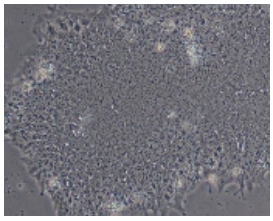


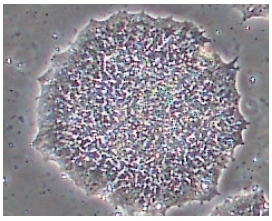
Examples

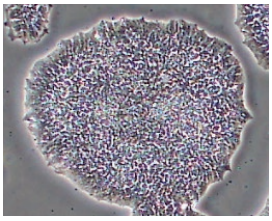
- **Various substrates including Vitronectin, Matrigel and iMarix-511 can be used**
- **Supporting colony culture just like conventional feeder-free cell culture media**
- **Applicable to single cell passaging with iMatrix-511**

Cell growth either equal or better than other media

Cell morphology


ESC; H9 line

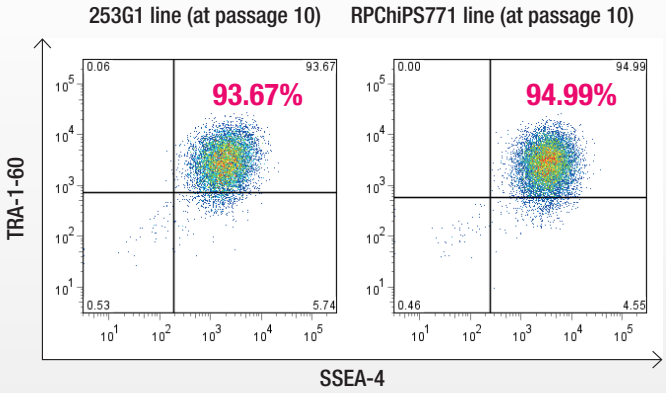

iPS cells; 253G1 line

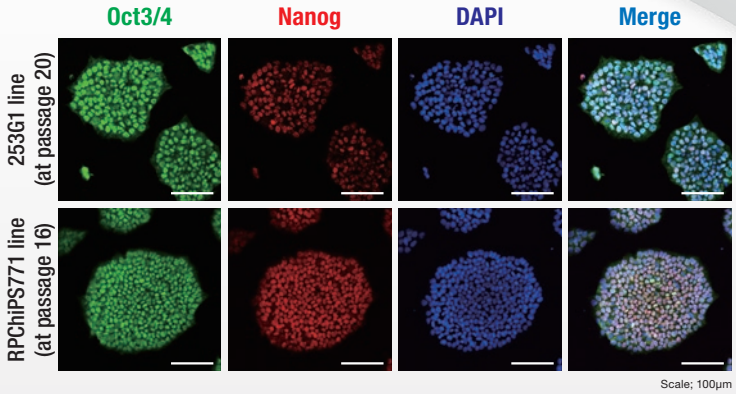

iPS cells; RPChiPS771 line

Cell growth

Cell line		STEMUP™	medium A	medium B	
ESCs	H9	4.7	4.6	-	Day 3 at average passage 3
iPSCs	253G1	15.6	16.3	9.5	Day 4 at average passage 4
	RPChiPS771	24.9	16	17.9	Day 4 at average passage 4

Confirmation of expression of various pluripotent markers

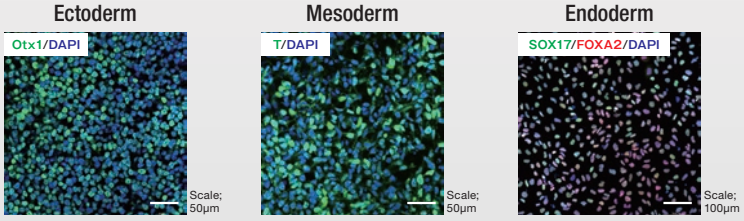




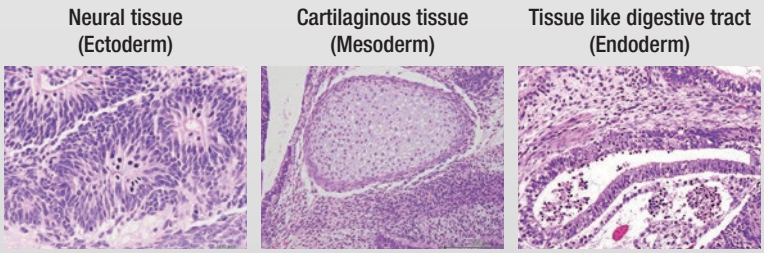
Scale; 100μm

Confirmation of differentiation potential of ES/iPS cells cultured with STEMUP™ medium *(in vitro, in vivo)*

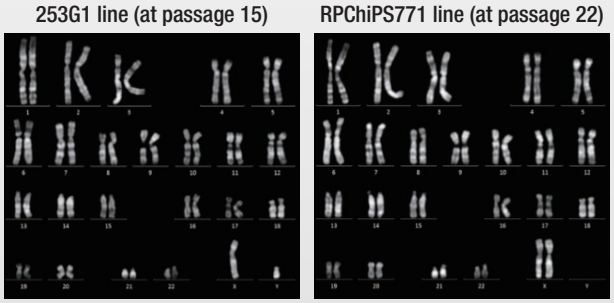
RPChiPS771 line (at passage 13)



Teratoma formation ESC; H9 line, at passage 16



Normal karyotype is maintained



Culture examples

- Culture of various kind of ES/iPS cell lines
- Induction of iPSCs derived from PBMCs or fibroblasts (over 10 examples)
- Efficient formation of Embryoid bodies. Differentiation of cardiomyocytes, neural stem cells and intestinal epithelial cells

【Distributor】

Nissan Chemical CORPORATION
Advanced Materials & Planning Division
Nihonbashi Takashimaya Mitsui Building, 5-1 Nihonbashi 2-chome, Chuo-ku, Tokyo 103-6119, JAPAN TEL +81-3-4463-8370 FAX +81-3-4463-8371
EMAIL: fcem@nissanchem.co.jp

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