



72hr change-free medium culture of human ES/iPS cells in Xyltech BOF-01

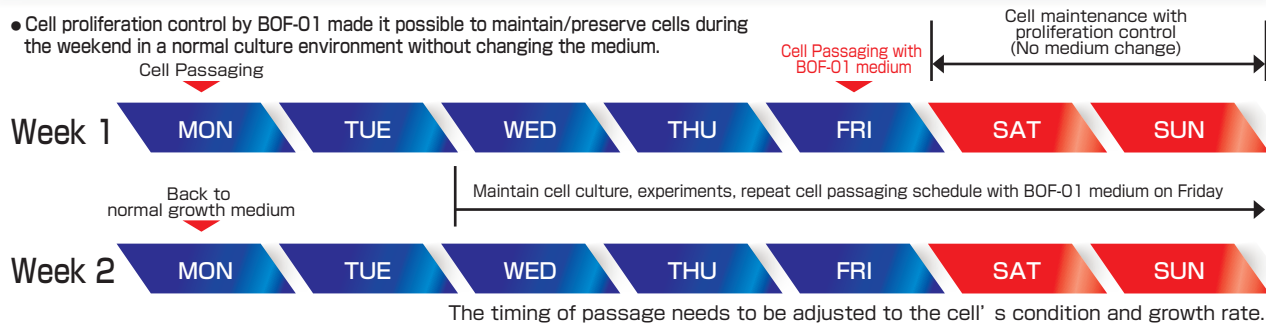
- BOF-01 is a novel basal culture medium which can suppress proliferation of human ES/iPS cells on feeder cell layers.
- BOF-01 can be used by completely replacing the basal culture medium (e.g. DMEM/F12) of the human ES/iPS cells.
- Human ES/iPS cells can be maintained with BOF-01 for about 3days (up to 72 hours) without changing medium under normal culture conditions (37°C, 5% CO₂).
- After suppression of cell proliferation with BOF-01, cell growth can be resumed by changing normal growth medium.
- This product does not contain glucose.

Note

- It cannot be used under feeder-free culture conditions.
- BOF-01 does not contained growth factors nor supplements (such as KSR, bFGF etc.).It is required to add necessary factors appropriately to prepare complete culture medium.
- Not all human ES/iPS cell lines have been tested with this product. None of non-stem cell lines are profiled either.
- This product does not inhibit cell proliferation completely.
- Cellular condition under BOF-01 culture depends on the state and culture condition of the human ES/iPS cells.
- This product is for research use only, and not permitted for human or animal diagnostic or therapeutic uses.

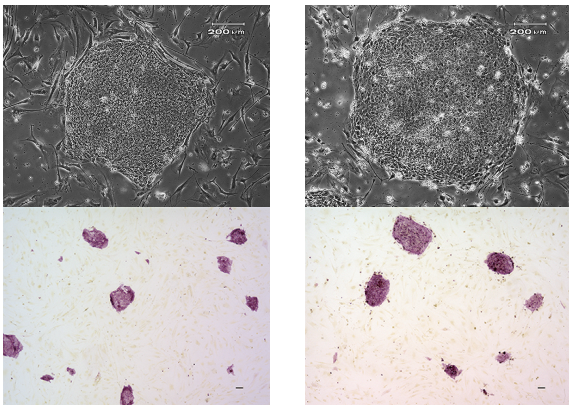
Overview of Weekend-free Protocol

- Cell proliferation control by BOF-01 made it possible to maintain/preserve cells during the weekend in a normal culture environment without changing the medium.



Morphology of Undifferentiated Cell Colony and Effect of Proliferation Control

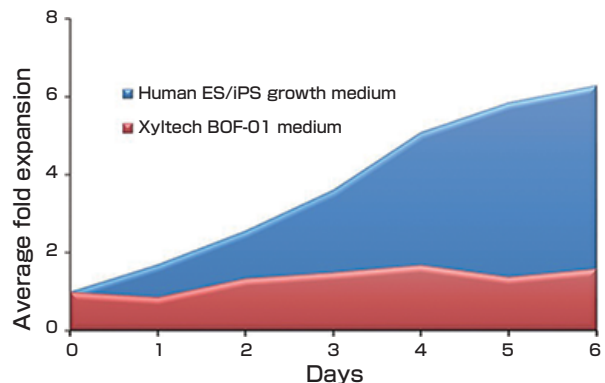
- Phase images of cell colonies and alkaline phosphatase stain of human iPS cells before and after proliferation control culture by BOF-01 (201B7 strain).



Normal culture

BOF-01 medium

- Comparison of cell proliferation rates of hiPS cells cultured in BOF-01 medium and normal human ES/iPS growth medium.

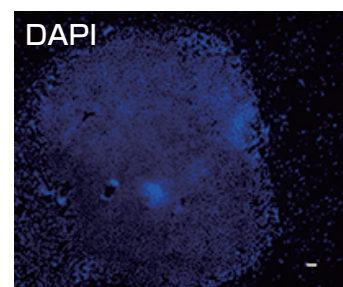
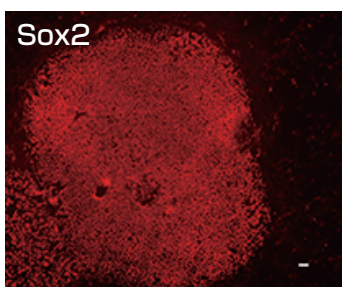
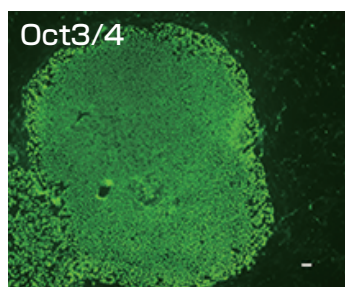


※The composition of normal growth medium (human ES/iPS medium) and BOF-01 medium are based on reference.
Curr Protoc Stem Cell Biol.2009 Jun; Chapter 4: Unit 4A.2.

Xyltech BOF-01 suppressed cell proliferation while maintaining human iPS cells in undifferentiated state.

Undifferentiation markers expression in human iPS cells by BOF-01

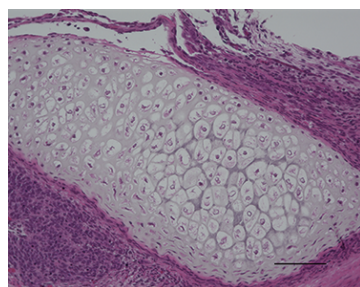
- The high expression of pluripotent stem cell markers was confirmed by immunofluorescence staining of human iPS cells (201B7) maintained in BOF-01 medium for 3 days.



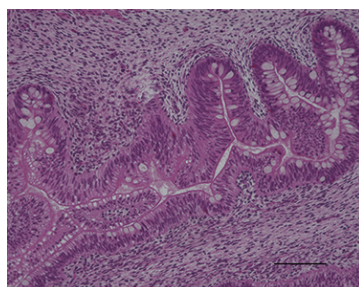
Xyltech BOF-01 maintained human iPS cells in undifferentiated state.

Differentiation of Three Germ Layers (Teratoma Assay)

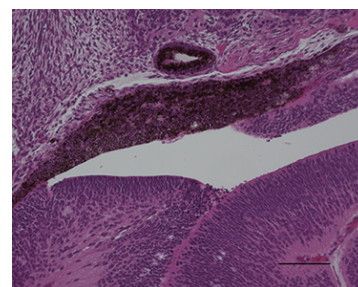
- The ability of differentiation was confirmed by transplanting into immunodeficient mouse by human iPS cells (201B7) maintained in BOF-01 medium for 3 days to form teratoma.



Mesoderm
(Chondrocyte)



Endoderm
(Alimentary canal epithelial cell)

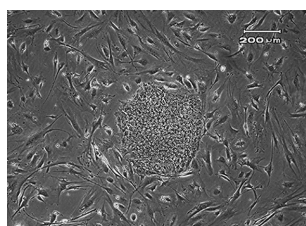


Ectoderm
(Pigment cell)

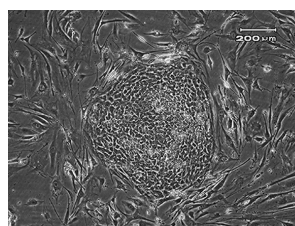
Xyltech BOF-01 maintained human iPS cells in pluripotent state.

Colony morphology changes during proliferation control culture

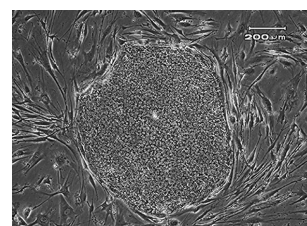
HumanES/iPS cells may change the morphology of colonies while cultured in BOF-01 medium. The original morphology can be resumed after changing back to normal human ES/iPS medium (Phase images show the example of 201B7 cells).



Normal culture (Day 1)



BOF-01 medium (Day 4)



Back to normal culture (Day 5)

Cat. No.	Product name	Expiration	Storage	Volume
10101	Xyltech BOF-01	12 months	2~8°C	100mL

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