Xyltech™ Growth H-Fbro

Catalog Number (BBARL/NIPRO): 10311/87-282 500 mL

1. Product features

This product is a synthetic culture medium suitable for cell growth of normal human fibroblasts. When used in combination with Xyltech™ H-Fbro-01, human fibroblast proliferation can be controlled as needed. This product is serum-free and contains no human or other animal-derived ingredients. If necessary, human serum (HS), fetal bovine serum (FBS), or serum substitute reagents can be added for cell culture.

2. Precautions for use

Xyltech™ Growth H-Fbro does not contain substances that neutralize trypsin activity. When subculturing cells with trypsin, it is strongly recommended that the trypsin activity be sufficiently neutralized with a trypsin inhibitor. Dilution washing alone does not completely remove trypsin activity and the remaining protease activity will reduce subsequent cell growth. This product is a research reagent. It cannot be used for human or animal treatment or diagnostic purposes.

3. Storage

Store Xyltech™ Growth H-Fbro in a cool, dark place (2-8°C). Do not freeze the medium to avoid deterioration of some active ingredients.

4. Example of cell culture protocol for normal human fibroblast culture using Xyltech™ Growth H-Fbro

4-1. Cells and reagents

- Normal human fibroblasts (100 mm-dish)
- Xyltech™ Growth H-Fbro (growth medium) ***This product**
- Artificial serum (Xf) or Artificial serum (Af) (NIPRO CAT. #: 87-081/87-082)
- r-TE (r-Trypsin/EDTA Solution) (NIPRO CAT. #: 87-974)
- s-TI (Synthetic Trypsin Inhibitor Solution) (NIPRO CAT. #: 87-975)
- D-PBS(-)

*We recommend adding 1% artificial serum (Xf) or artificial serum (Af) for use with Xyltech™ Growth H-Fbro.

4-2. Cell culture of normal human fibroblasts for growth

1. Warm the culture medium, D-PBS (-), r-TE, and s-TI in a 37°C water bath.
2. Remove the culture supernatant of selected normal human fibroblasts that have reached around 80% confluence (sub confluence).
3. Rinse the cell layer with 5 mL of D-PBS (-).

4. Add 0.5 mL of r-TE and incubate at 37°C for approximately 2 minutes.
5. Add 0.5 mL of s-TI, mix well, gently pipette up and down several times, collect cells from the dish, and centrifuge at 1,000 rpm, for 5 minutes.
6. Aspirate supernatant and add the appropriate amount of Xyltech™ Growth H-Fbro medium to resuspend the cells and seed into a new tissue culture dish.
7. The cells become confluent within 2-4 days when cultured in Xyltech™ Growth H-Fbro medium. Start subculture and/or experiments with the cells.
8. For experiments requiring reduced growth rate, the cells can be cultured from 3 days to 1 week in Xyltech™ H-Fbro-01 growth suppressive medium (See protocol for suppressive growth control using Xyltech™ H-Fbro-01, BBARL CAT. #: 10301).

4-3. Phase contrast microscope images of normal human fibroblasts cultured with Xyltech™ Growth H-Fbro or Xyltech™ H-Fbro-01

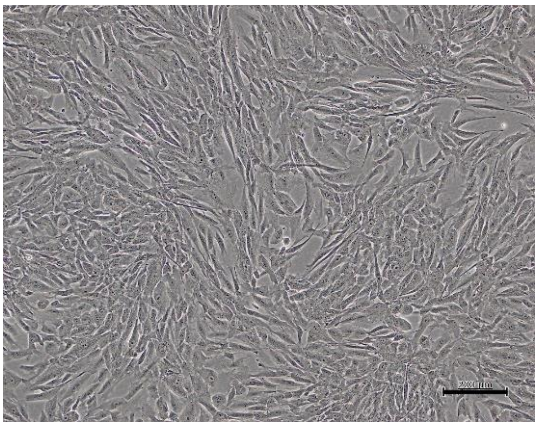
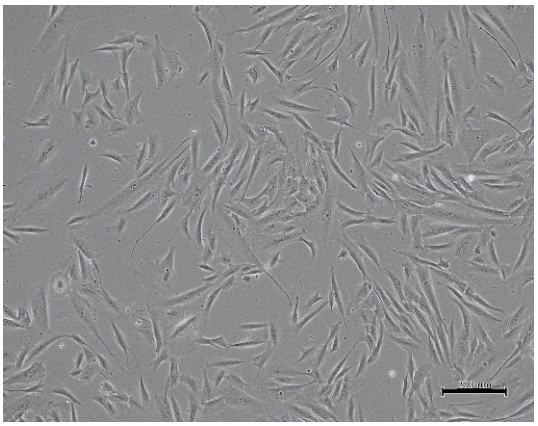


Fig. 1 Normal human fibroblasts cultured with Xyltech™ Growth H-Fbro for 3 days.



Bars=200 μm

Fig. 2 Normal human fibroblasts cultured with Xyltech™ H-Fbro-01 (growth suppressive medium) for 3 days.

*****The protocol is based on experimental results. It may be necessary to adjust seeding density, and passage timing according to the cells. This protocol is intended for research purposes only.

5. For Inquiries about product

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