Xyltech™ Growth BMT

Catalog Number (BBARL/NIPRO): 10211/87-286

1. Product features

This product is a synthetic culture medium suitable for cell growth of human mesenchymal stem cell (hMSC). When used in combination with Xyltech™ BMT-01, hMSC proliferation can be controlled as needed. This product is serum-free culture medium. This product consists of 500 mL of BMT basal culture medium and 50 mL of BMT Supplement. Before use, quickly thaw the BMT Supplement at 37°C and immediately add it to the BMT basal culture medium. If you use only a small amount, we recommend thawing the frozen supplement and aliquot the required amount for each use and save at -20°C. Do not repeat freezing after thawing the aliquots.

< Product content >

Product Name	CAT. # (BBARL/NIPRO)	Package
Xyltech™ Growth BMT (Basal Medium)	10211-1/87-284	500 mL
Xyltech™ Growth BMT Supplement	10211-2/87-285	50 mL

2. Precautions for use

Xyltech™ Growth BMT 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 reduces subsequent cell growth. This product is a research reagent. It cannot be used for human or animal treatment or diagnostic purposes.

3. Storage

Store BMT basal culture medium in a cool, dark place (2-8°C). Store the BMT Supplement in freezer (-20°C). Do not freeze the medium after adding the supplement to avoid deterioration of some active ingredients.

4. Example of cell culture protocol for normal human adipose-derived stem cells (ADSCs) culture using Xyltech™ Growth BMT

4-1. Cells and reagents

- Normal human ADSCs (100 mm-dish, Fibronectin coated)
- Xyltech™ Growth BMT (growth medium) ***This product**
- r-TE (r-Trypsin/EDTA Solution) (NIPRO CAT. #: 87-974)
- s-TI (Synthetic Trypsin Inhibitor Solution) (NIPRO CAT. #: 87-975)
- D-PBS (-)

4-2. Cell culture of normal human ADSCs

1. Before using Xyltech™ Growth BMT culture medium, add the entire amount of BMT Supplement (thawed before use) to the BMT basal culture medium and mix well.
2. Warm the culture medium, D-PBS (-), r-TE, and s-TI in a 37°C water bath.
3. Remove the culture supernatant of selected normal human ADSCs that have reached around 80% confluence (sub confluence).
4. Rinse the cell layer with 5 mL of D-PBS (-).
5. Add 0.5 mL of r-TE and incubate at 37°C for approximately 2 minutes.
6. 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.
7. Aspirate the supernatant and add the appropriate amount of Xyltech™ Growth BMT medium to resuspend the cells and seed into a fibronectin coated new tissue culture dish.
8. The cells become confluent within 2-4 days when cultured in Xyltech™ Growth BMT medium. Start subculture and/or experiments with the cells.
9. For experiments requiring reduced growth rate, the cells can be cultured from 3 days in Xyltech™ BMT-01 growth suppressive medium (See protocol for suppressive growth control using Xyltech™ BMT-01, BBARL CAT. #:10201).

4-3. Phase contrast microscope images of normal human ADSCs cultured with Xyltech™ Growth BMT or Xyltech™ BMT-01

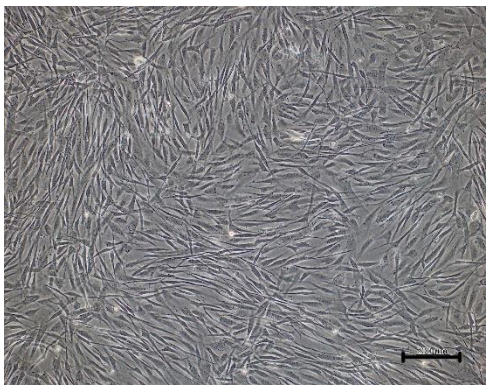
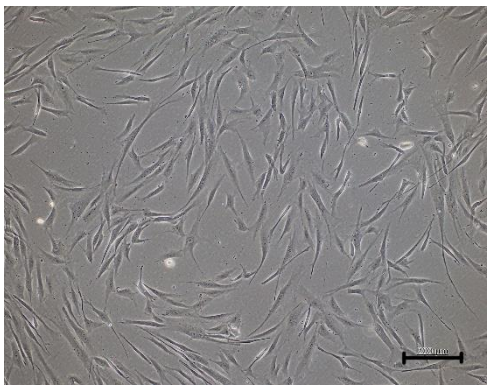


Fig. 1 Normal human ADSCs cultured with Xyltech™ Growth BMT for 3 days.



Bars=200 μm

Fig. 2 Normal human ADSCs cultured with Xyltech™ BMT-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 products

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