




# Alginate 3D Cell Culture Kit

*A three-dimensional (3D) cell culture kit using alginate gel.*

-  **Easy to produce alginate gel beads and harvest the cultured cells from gel.**
-  **Detect the ability of cells to undergo anchorage-independent growth like as soft-agar culture.**
-  **Suitable for 3D culture including tumor cells and chondrocytes.**



#### Kit Components:

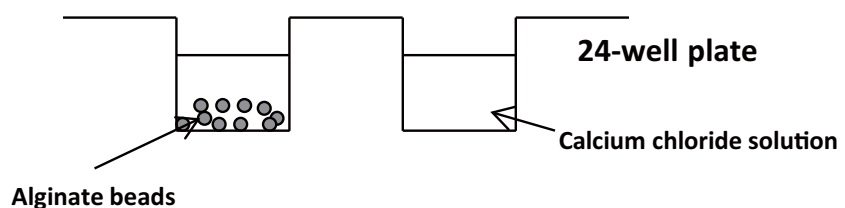
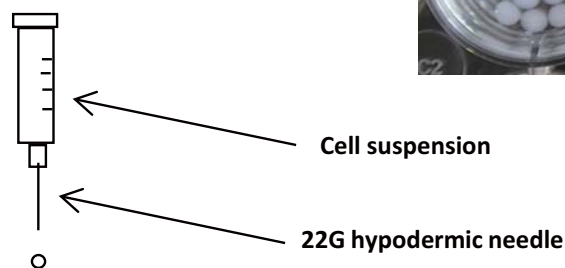
- Sodium alginate solution (25 mL)
- Calcium chloride solution (100 mL x2 bottles)
- Sodium citrate solution (100 mL)
- Plastic flexible needle (4 pieces)
- 24-well plate (4 pieces, for suspension culture)

#### Materials and Instruments Required, but Not Included:

- Physiological saline (sterile)
- 22G Hypodermic needle
- 5 mL Syringe

## Preparation of Alginate Beads

- (1) Prepare cell suspended alginate solution in 5mL syringe.
- (2) Drop the cell suspension into each well containing calcium chloride solution and produce alginate beads.
- (3) Wash alginate beads.
- (4) Dispense culture medium and let start the culture.



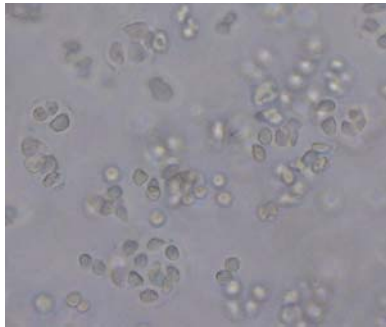
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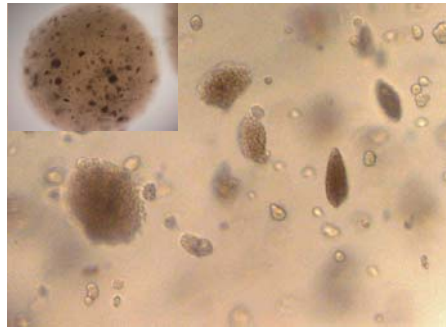
## Cell Recovery from Alginate Beads

- (1) Remove the medium from the well.
- (2) Add sodium citrate solution and dissolve the alginate beads.
- (3) Centrifuge and harvest the cells as a precipitated pellet.

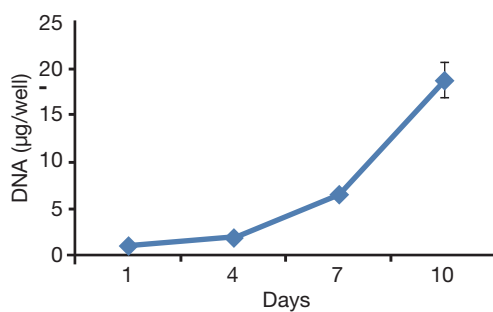
## Reference Data



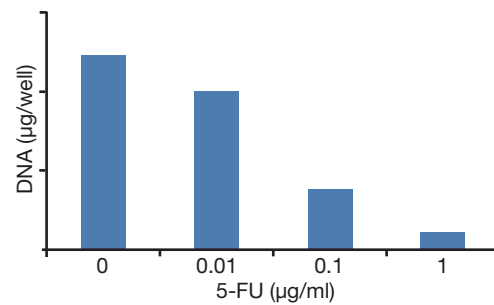
Porcine Chondrocytes cultured in alginate beads



HepG2 cell cultured in alginate beads



Growth curve of HepG2 cells cultured in alginate beads (Mean±SD, n=3)



Effect of 5-FU on the growth of HepG2 cells in alginate beads culture

| Description                  | Cat. No.    | Quantity | Remarks                                    |
|------------------------------|-------------|----------|--|
| Alginate 3D Cell Culture Kit | CSR-ABC-KIT | 1 kit    | sterile, store below 4°C,<br>Do not Freeze |
| Sodium Alginate Solution     | CSR-ABC-AL  | 25 mL    | sterile, store below 4°C,<br>Do not Freeze |
| Calcium Chloride Solution    | CSR-ABC-CA  | 100 mL   | sterile, store below 4°C,<br>Do not Freeze |
| Sodium Citrate Solution      | CSR-ABC-CI  | 100 mL   | sterile, store below 4°C,<br>Do not Freeze |

For research use only. Not for diagnostic use.



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