



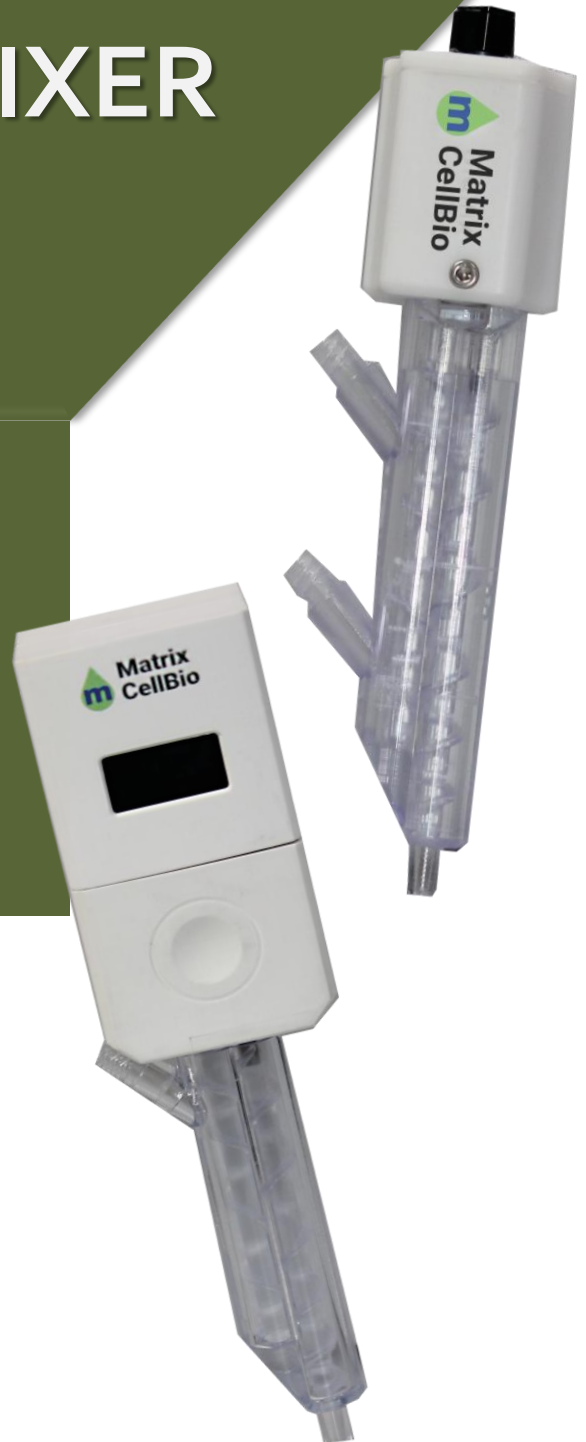
MatrixCell Bio

BIOINK(GEL) MIXER

(Digital and Analog)

BIOINK(GEL) MIXER is a wireless-controlled bio device with screw-nano/micro particles. Driven biomixing of hydrogel with cells, drugs & nano/micro particles.

- No researcher-dependent hand mixing.
- Controlled physical biomixing with defined protocols.
- Apply to diverse viscose biogels/bioinks.
- For quality control process.



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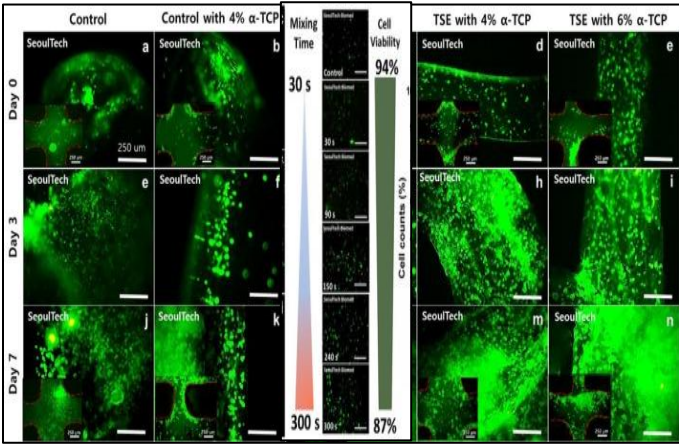


Seoul National Univ. of Sci. & Tech.,

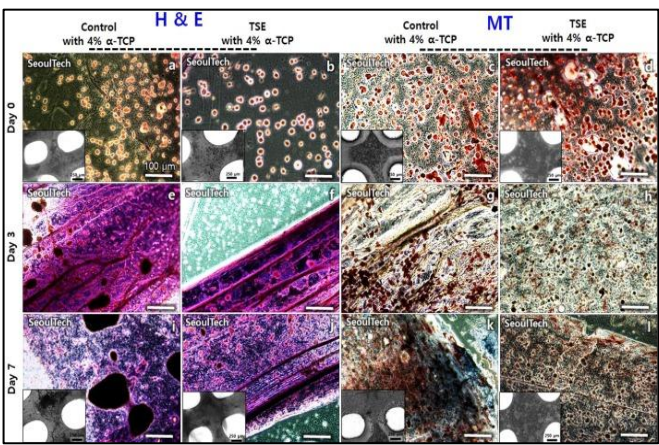
The 2nd startup incubation center 131, Gongneung-ro 232, Nowon-gu,
Seoul 01811, Republic of Korea.

「This product has successfully passed all KTR's electromechanical safety and electromagnetic compatibility tests, and its safety has been certified by an authorized institution. 」

Cell compatibility & Distribution



Tissue regeneration & Property



I. Experimental conditions

- MC3T3 cells (1x10⁶ cells/mL with 100 μL medium 60 sec).
- 4% alginate gel x-linked with CaCl₂.
- 1 mil/mL w 100 μL medium for 60 sec, alginate gel with CaCl₂.

II. Methods

1) Conventional method

- Hand mixing with spatula for 10 mins.
- Cell viability 75%.

2) Biogel mixer

- Biomixing for 60 sec at 24 rpm.
- Cell viability up to 94% (depends on RPM)

III. Results (Aggregation)

1) Conventional method

- Aggregations(TCP particles, cells)

2) Biogel mixer

- Enhanced ECM formation and even particle distribution.

IV. Results (Histological Analysis)

1) H & E stain

- Conventional mixing (b, f, j).
- Biogel mixer (c, g, k).

2) MT stain

- Conventional mixing (d, h, l) .
- Biogel mixer (e, i, m).

Bio & Biomedical Application

- 2D & 3D Cell culture .
- Hydrogel researches.
- Drug delivery.
- Biotechnology.
- Cell therapy.
- Tissue engineering.
- Hand-held Bioprinting.
- Quality Control process.

Total weight (g) without syringe	Height
Digital : 215 g / Analog: 107 g	Digital : 205mm / Analog: 180mm