

Demonstration of Self-Assembled Cell Sheet Culture and Manual Generation of a 3D Tendon/Ligament-Like Organoid by using Human Dermal Fibroblasts

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Materials

| Name | Company | Catalog Number | Comments |
|---|--|----------------|--------------------------------------|
| Ascorbic acid | Sigma-Aldrich, Taufkirchen, Germany | A8960 | |
| 10 cm adherent cell culture dish | Sigma-Aldrich, Taufkirchen, Germany | CLS430167 | |
| 10 cm non-adherent petri dish | Sigma-Aldrich, Taufkirchen, Germany | CLS430591 | |
| Cryo-medium | Tissue-Tek, Sakura Finetek, Alphen aan den Rijn, Netherlands | 4583 | |
| Cryomold standard | Tissue-Tek, Sakura Finetek, Alphen aan den Rijn, Netherlands | 4557 | |
| D(+)-Sucrose | AppliChem Avantor VWR International GmbH, Darmstadt, Germany | A2211 | |
| DMEM high glucose medium | Capricorn Scientific, Ebsdorfergrund, Germany | DMEM-HA | |
| DMEM low glucose | Capricorn Scientific, Ebsdorfergrund, Germany | DMEM-LPXA | |
| Fetal bovine serum | Anprotec, Bruckberg, Germany | AC-SM-0027 | |
| Fibroblast growth medium 2 | PromoCell, Heidelberg, Germany | C-23020 | |
| H&E staining kit | Abcam | ab245880 | |
| Inverted microscope with high resolution camera | Zeiss | NA | Zeiss Axio Observer with Axiocam 506 |
| MEM amino acids | Capricorn Scientific, Ebsdorfergrund, Germany | NEAA-B | |
| Metal pins | EntoSphinx, Pardubice, Czech Republic | 04.31 | |
| Normal human dermal fibroblasts | PromoCell, Heidelberg, Germany | C-12302 | |
| Paraformaldehyde | AppliChem, Sigma-Aldrich, Taufkirchen, Germany | A3813 | |

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|-------------------------|---|----------|--|
| Penicillin/streptomycin | Gibco, Thermo Fisher Scientific, Darmstadt, Germany | 15140122 | |
| Phosphate buffer saline | Sigma-Aldrich, Taufkirchen, Germany | P4417 | |
| TGFβ3 | R&D Systems, Wiesbaden, Germany | 8420-B3 | |
| Trypsin-EDTA 0,05% DPBS | Capricorn Scientific, Ebsdorfergrund, Germany | TRY-1B | |