Datasheet for ABIN5706724

Rat Tail

4 Images

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Overview

Quantity:	50 pack
Reactivity:	Rat
Host:	Rat

Product Details

Characteristics:	Sex: Mixed Strain: Rat - Mixed

Application Details

Comment:	Synonyms: Rat tissue, Collagen, Rat Collagen, Type I Collagen
Restrictions:	For Research Use only

Handling

Format:	Tissue
Storage:	-20 °C
Expiry Date:	Unlimited (if stored properly)

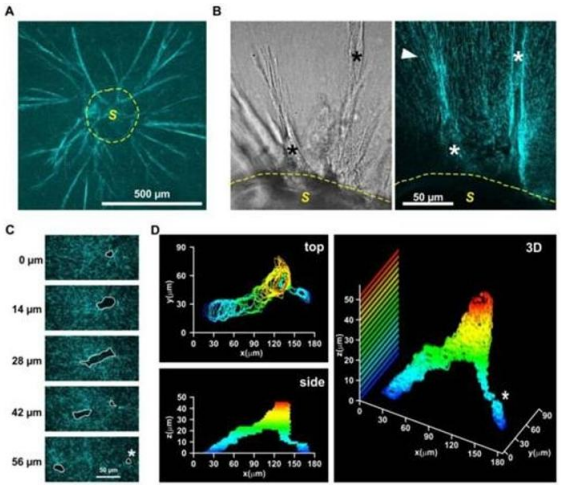

Image 1. 3D ECM remodeling by carcinoma-derived fibroblasts. (A) 3D reconstruction from confocal reflectance sections of a spheroid (S) composed of carcinoma-derived primary fibroblasts invading into a 3D collagen scaffolds. Cells were allowed to invade into the ECM for a period of 48 h. The original spheroid boundary is indicated by the dashed line. (B) Phase contrast image of the invading cells (indicated by the asterisks) and the corresponding confocal reflectance image showing the collagen remodeling perpendicular to the spheroid boundary (arrow). (C) Confocal reflectance images of collagen showing a Z stack of the microtrack left in the wake of a single cell migration due to ECM remodeling and (D) the corresponding 3D reconstruction of the microtrack. Rat tail (p/n RT-T297). Fig 4. PMID: 25866589.

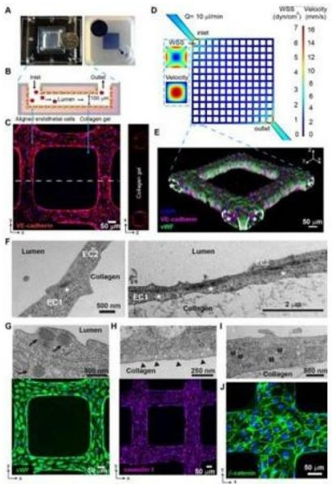

Image 2. Characterization of 3D brain microvessels. (A) (Left) Photo of an assembled 3D microvessel device with a dime (diameter, 17.9mm). (Right) 3D microvessels perfused with food dye. (B) Schematic cross-sectional view of the 3D microvessels. (C) Immunofluorescence assay (IFA) z-projection of confocal sections of a 3D brain microvessel (left) and cross-sectional view (right) labeled with anti-VE-cadherin (red) and DAPI (blue). (D) Mid-plane flow velocity (z=50µm) and estimated WSS (z=0µm) distributions in the grid geometry, simulated with COMSOL prior to collagen remodeling by HBMEC (see Materials and Methods). Inlaid cross-sectional views represent the lumen at the first branch after the inlet. (E) 3D reconstruction of a grid portion. Colors indicate anti-VE-cadherin antibody (red), anti-VWF antibody (green), and DAPI (blue). Asterisk, lumen. (F) Transmission electron microscopy (TEM) showing endothelial junctions and focal contacts. EC1 and EC2,

endothelial cells 1 and 2, asterisk, electron-dense contacts. (G) TEM showing Weibel-Palade bodies (arrows, top) and IFA z-projection of VWF (green, bottom). (H) TEM image of polarized caveolae (arrowheads, top) and IFA z-projection of caveolin-1 (magenta, bottom). (I) TEM image reveals high mitochondrial (M) content of HBMEC. (J) IFA z-projection of adherens junctions stained with anti-β-catenin antibody (green). Nuclei in panels G, H, and J were stained with DAPI (blue). Rat tail (p/n RT-T297). Fig 1. PMID: 31138740.

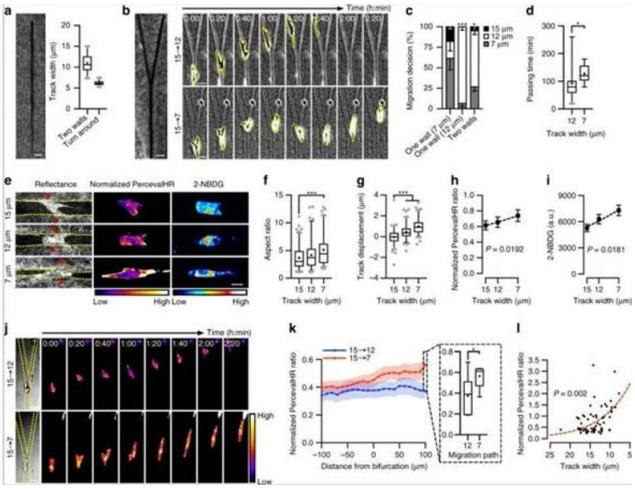

Image 3. Spatial confinement influences migration decision-making, cellular ATP:ADP ratio, and glucose uptake. a Confocal reflectance image of a tapered collagen microtrack, and track width when cells contact two side walls of the microtrack or turn around and reverse migration direction (n=20 cells). b Confocal reflectance image of a Y-shaped collagen microtrack and time-series images of decision-making during migration in Y-shaped microtracks (cell body outlined in yellow). c Final migration choice of cells based on cell-matrix contact before reaching the bifurcation (n=34, 29, 41 cells for one wall (7μm), one wall (12μm), or two walls). d Time taken for cells touching two walls to pass through the bifurcation and enter a branch (n=29 cells). e Confocal reflectance images of microtrack structure, and normalized PercevalHR ratio and 2-NBDG heatmaps of cells in each microtrack (yellow lines show microtrack walls, red arrowheads show areas of matrix displacement around the cell body). f, g Quantification of cell body aspect ratio (f) and track displacement (g) for cells in 15, 12, and 7μm microtracks (n=95, 96, and 91 cells, respectively). h, i Normalized PercevalHR ratio (n=95, 96, and 91 cells, respectively) (h) and 2-NBDG uptake (n=54, 40, and 56 cells, respectively) (i) for cells in 15, 12, and 7μm microtracks. j Intracellular ATP:ADP ratio (normalized

PercevalHR ratio) during decision-making in Y-shaped microtracks (yellow lines show microtrack walls). k Quantification of normalized PercevalHR ratio as a function of distance from the bifurcation and after final migration choice (n=10 cells for 12µm path, 5 cells for 7µm path). l Normalized PercevalHR ratio in tapered collagen microtracks (n=62 cells). Data shown as median±interquartile range (box), 5th-95th percentiles (whiskers), and mean (+) (a, d, f, g, k), or mean±s.e.m. (c, h, i), dashed lines show exponential growth, Clopper-Pearson confidence interval for observed proportion (c), two-tailed Mann-Whitney test (d, f, g, k), or extra sum-of-squares F-test (h, i, l), *P<0.05, **P<0.01, ***P<0.001. Scale bar, 50µm (a, b), 25µm (b, j), and 15µm (e). Rat tail (p/n RT-T297). Fig 1. PMID: 31519914.

Please check the product details page for more images. Overall 4 images are available for ABIN5706724.

