

SUPPLEMENTARY INFORMATION

Unveiling Tissue-Specific Transcriptional Adaptations in iPSC-Derived Fibroblasts via Co-Culture Systems

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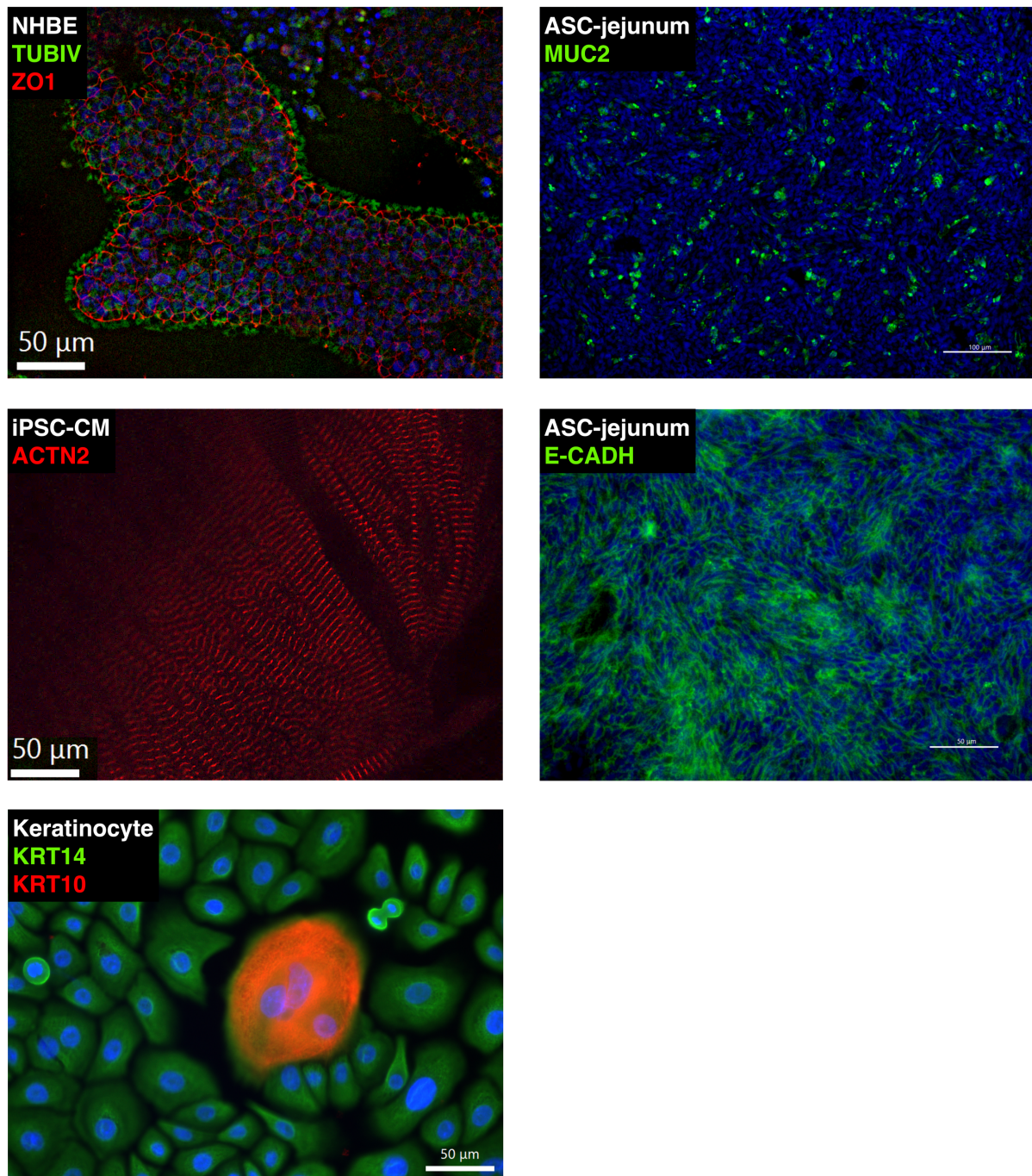
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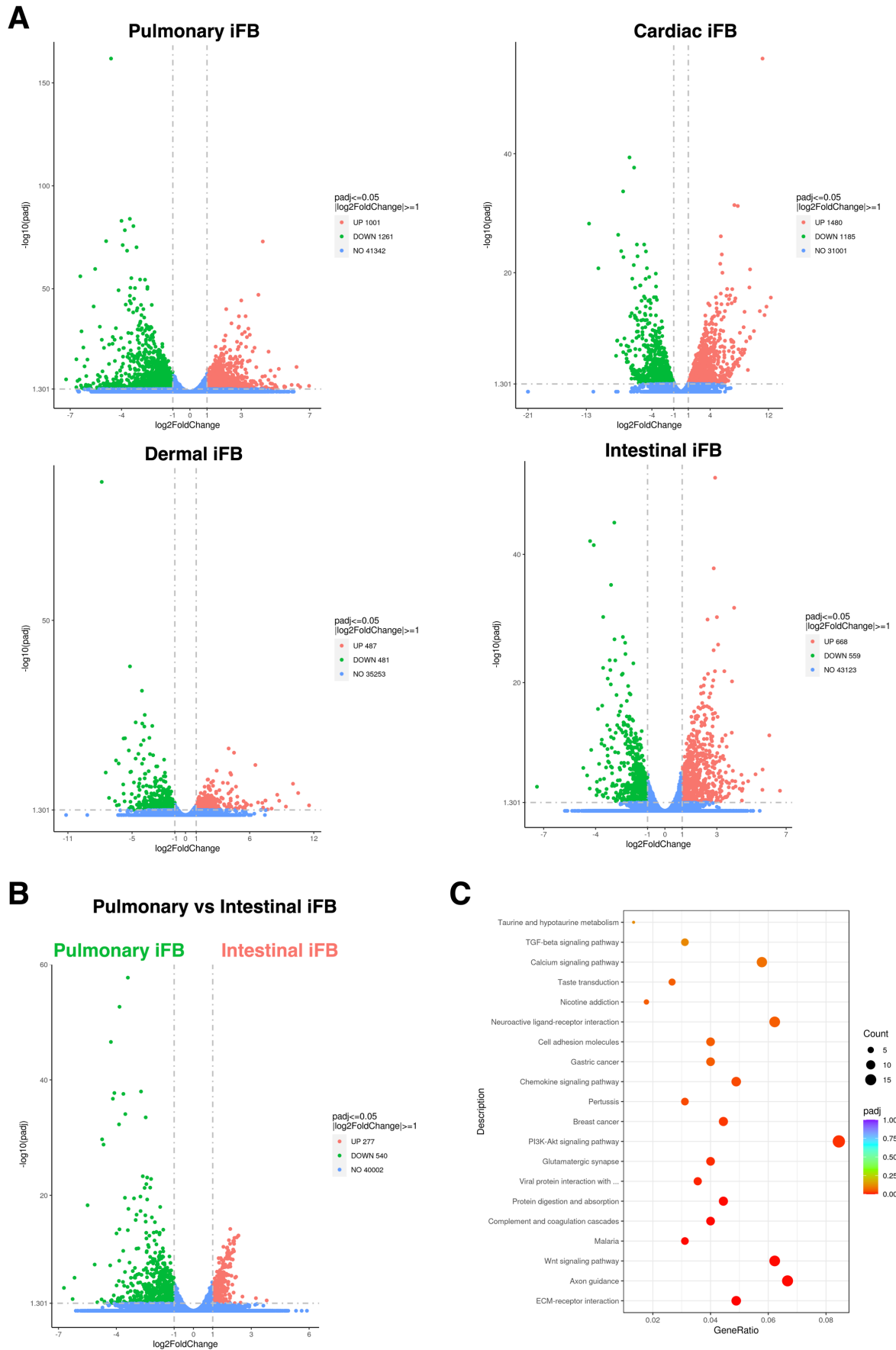
Supplementary Table 1. Primer List

Name	Sequence
TBX20 FWD	ggCgACggAgAACACAATCAA
TBX20 REV	CTgggCACAggACgACTTC
MMP2 FWD	TACAggATCATTggCTACACACC
MMP2 REV	ggTCACATCgCTCCAgACT
HHIP FWD	TCTCAAAgCCTgTTCCACTCA
HHIP REV	gCCTCggCAAgtgTAAAgAA
NPNT FWD	gTAAgCACAggTgCATgAACA
NPNT REV	gAACCATCCggCATgAgCATA
BMP4 FWD	ATgATTCCTggTAACCGAATgC
BMP4 REV	CCCCgTCTCAggTATCAAACCT
CXCL12 FWD	ATTCTCAAACTCCAAACTgTgC
CXCL12 REV	ACTTTAgCTTCgggTCAATgC
FBLN1 FWD	AgAgCTgCgAgTACAgCCT
FBLN1 REV	CgACATCCAAATCTCCggTCT
POSTN FWD	CACgCAAgtgCCATTATCTCTCCA
POSTN REV	ACCCACTCATATAgAAATgTgCAAAgC
KRT14 FWD	ggCCTgCTgAgATCAAgtgACTAC
KRT14 REV	CACTgTggCTgTgAgAATCTTgTT
18S FWD	CGCGGTTCTATTTTGTGTTGGT
18S REV	AGTCGGCATCGTTTATGGTC

Supplemental Figures

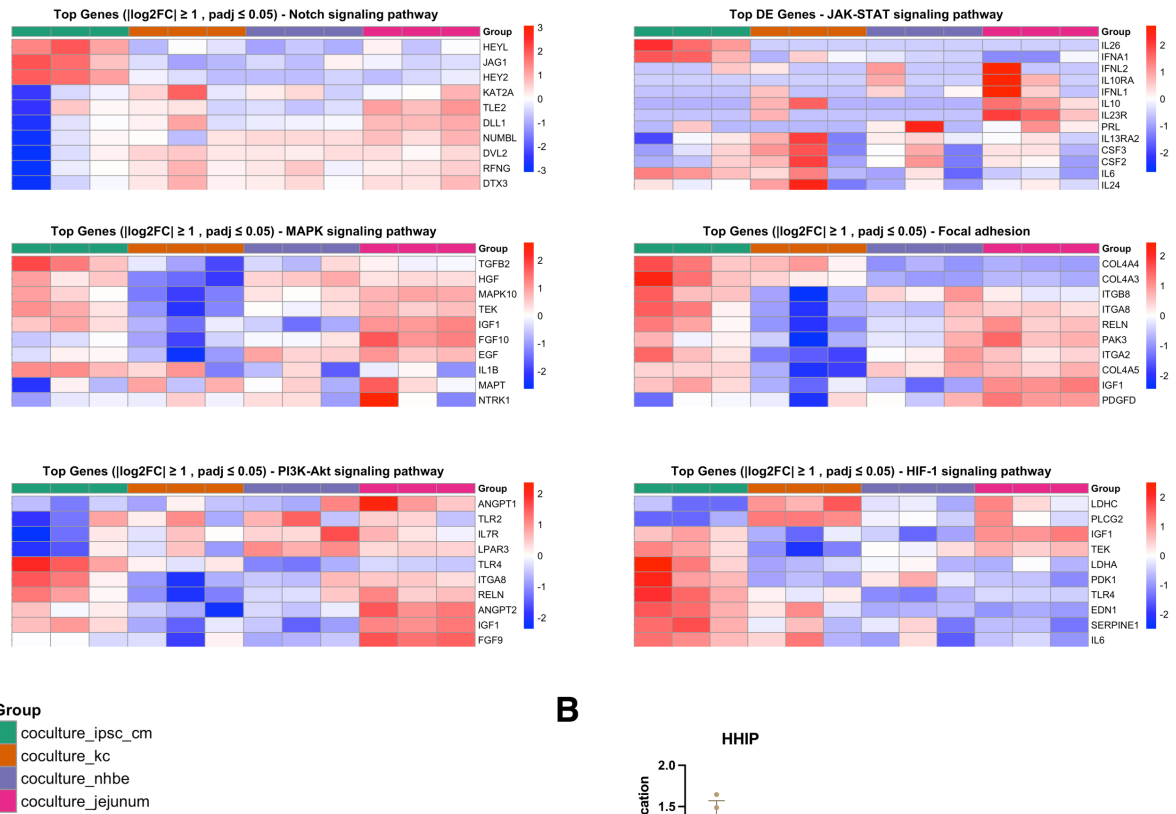


Supplementary Figure 1 Immunofluorescence characterisation of NHBE, iPSC-CM, ASC-derived jejunum and primary keratinocytes.

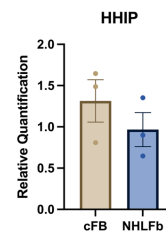


Supplementary Figure 2 (A) Volcano plots of co-cultured iFBs compared to non-co-cultured iFBs in the basal medium for co-culture. (B) Volcano plot comparing iFBs co-cultured with NHBEs with ASC-jejunal cells. (C) Dot plot depicting significantly upregulated KEGG pathways in ASC-jejunal-co-cultured iFBs compared to NHBE-co-cultured iFBs.

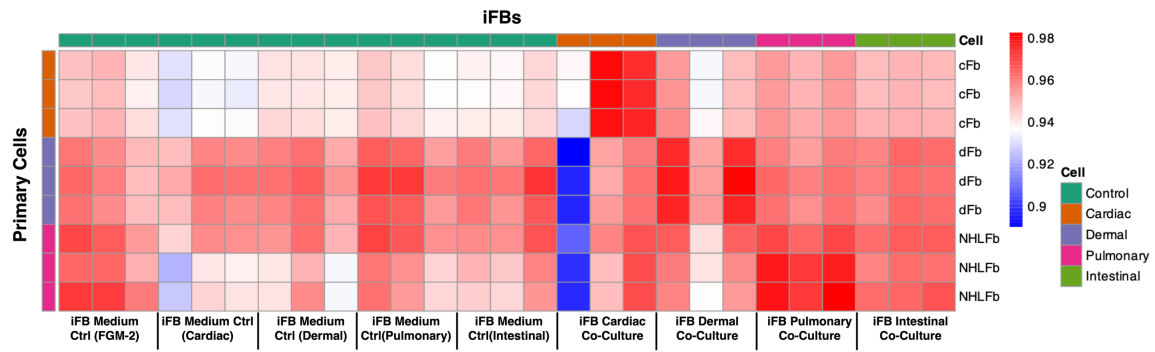
A



B



Supplementary Figure 3 (A) Heatmaps depicting the top 5 differentially expressed (DE) genes across key KEGG pathways. (B) HHIP transcript expression in primary cardiac fibroblasts (cFB) and normal human lung fibroblasts (NHLFb).



Supplementary Figure 4 Expression correlation heatmap comparing RNA-seq datasets of different culturing conditions of iFBs with cardiac (cFB), dermal (dFB), and normal human lung fibroblasts (NHLFs), demonstrating transcriptional overlap between iFBs with primary fibroblasts.