

Secker et al.:

RPTEC/TERT1 Cells Form Highly Differentiated Tubules When Cultured in a 3D Matrix

Supplementary Data

Tab. S1: Primer pairs for quantitative real-time PCR

List of all used forward and reverse primers including NCBI Ref. Seq. numbers.

Protein (<i>gene</i>) name	NCBI Ref. Seq.	Forward primer	Reverse primer
OAT2 (<i>SLC22A7</i>)	NM_006672	AGCCTACGTGAGTACCCTGG	CACTCCAGCTCCAGTGGC
OAT3 (<i>SLC22A8</i>)	NM_004254	CACGAGCCCTCCAATCAGTA	CTGGGTCTACAACAGCACCA
OAT4 (<i>SLC22A11</i>)	NM_018484	CCGCAGTAGATGACGAATGTT	ATCCTGGTGGGCTCCTTTAT
MRP1 (<i>ABCC1</i>)	NM_004996	CTGGACTGATGACCCCATCG	GCGATCCCTTGTGAAATGCC
MRP2 (<i>ABCC2</i>)	NM_000392	GGGATCTCTTCCACACTGGAT	CATACAGGCCCTGAAGAGGA
MRP3 (<i>ABCC3</i>)	NM_003786	GTCCCATTCGCTCCAAGAT	TCAGGGTAGGGGTTAGGGTC
MRP4 (<i>ABCC4</i>)	NM_005845	TCTCCGTTTATGGCCAATTT	CCGTGTACCAGGAGGTGAAG
MRP5 (<i>ABCC5</i>)	NM_005688	TGAGCTGAGAATGCATGGAG	GAGAACCAGCACTTCTGGGA
OCT1 (<i>SLC22A1</i>)	NM_003057	CCCCTCATTTTGTGTTGCGGT	TTTCTCCCAAGGTTCTCGGC
OCT2 (<i>SLC22A2</i>)	NM_003058	TGCATATTTTCGGCTTCCTC	ACCGGCTCACTAACATCTGG
OCT3 (<i>SLC22A3</i>)	NM_021977	AGGTGAATGCTCCAGTCAGG	ACTCCACCATCGTCAGCG
CTR1 (<i>SLC31A1</i>)	NM_001859	GGTTGGGTGATGGTGAGAAG	GCTAGTGGCTGGACTTGACC
MATE1 (<i>SLC47A1</i>)	NM_018242	TGATCAGGAACACCATCAGC	GAGGCCACCCTTGAGGTC
MATE2 (<i>SLC47A2</i>)	NM_152908	TGCTTCCCAGTTCTCTCTCAG	GAAGATGTCATTGCCCTGGT
OCTN1 (<i>SLC22A4</i>)	NM_003059	CGTGACCGAGTGGAATCTGG	AGCCATGGTTGCGAAGAGAA
OCTN2 (<i>SLC22A5</i>)	NM_003060	ACACCCACGAAGAACAAGGA	ATGGCTGGGAGTTCAGTCAG
PGP (<i>ABCB1</i>)	NM_000927	ACAGAGGGGATGGTCAGTGT	TCACGGCCATAGCGAATGTT
BCRP (<i>ABCG1</i>)	NM_004827	TGGTGTTTCTTGTGACACTG	TGAGCCTTTGGTTAAGACCG
SGLT1 (<i>SLC5A1</i>)	NM_000343	TGGCCACTTCCAATGTTACT	GGGACTGTTGGAGGCTTCTT
SGLT2 (<i>SLC5A2</i>)	NM_003041	TTCACCAAGATCTCAGTGGACAT	GAAGGTCTGTACCCTGTCCG
GLUT1 (<i>SLC2A1</i>)	NM_006516	GGCATTGATGACTCCAGTGTT	ATGGAGCCCAGCAGCAA
Cubilin (<i>CUBN</i>)	NM_001081	GGACGGCCATTACTCACAAAAG	TTTGTCACCTCCTCAGTTCC
AQP1 (<i>AQP1</i>)	NM_198098	GGAGGGTCCCGATGATCT	CTCTCAGGCATCACCTCCTC
GGT1 (<i>GGT1</i>)	NM_013421	CTCATAGCCTCGGATCTCCC	ACAACAGCACACACGAAAA
ALPL (<i>ALPL</i>)	NM_000478	GACCTCGTTGACACCTGGAA	CTGGCTCGAAGAGACCCAAAT
LAP3 (<i>LAP3</i>)	NM_015907	GCAGAAGCCTTGATGGAGAT	CCCCCAGTCTTCTTGGAAT
β Actin (<i>ACTB</i>)	NM_001101	GTTGTGACGACGAGCG	GCACAGAGCCTCGCCTT
HPRT1 (<i>HPRT1</i>)	NM_000194	CACCCTTTCCAATCCTCAG	CTCCGTTATGGCGACCC
RPL13A (<i>RPL13A</i>)	NM_012423	GGTATGCTGCCCCACAAAACC	CTGTCACTGCCTGGTACTTCCA



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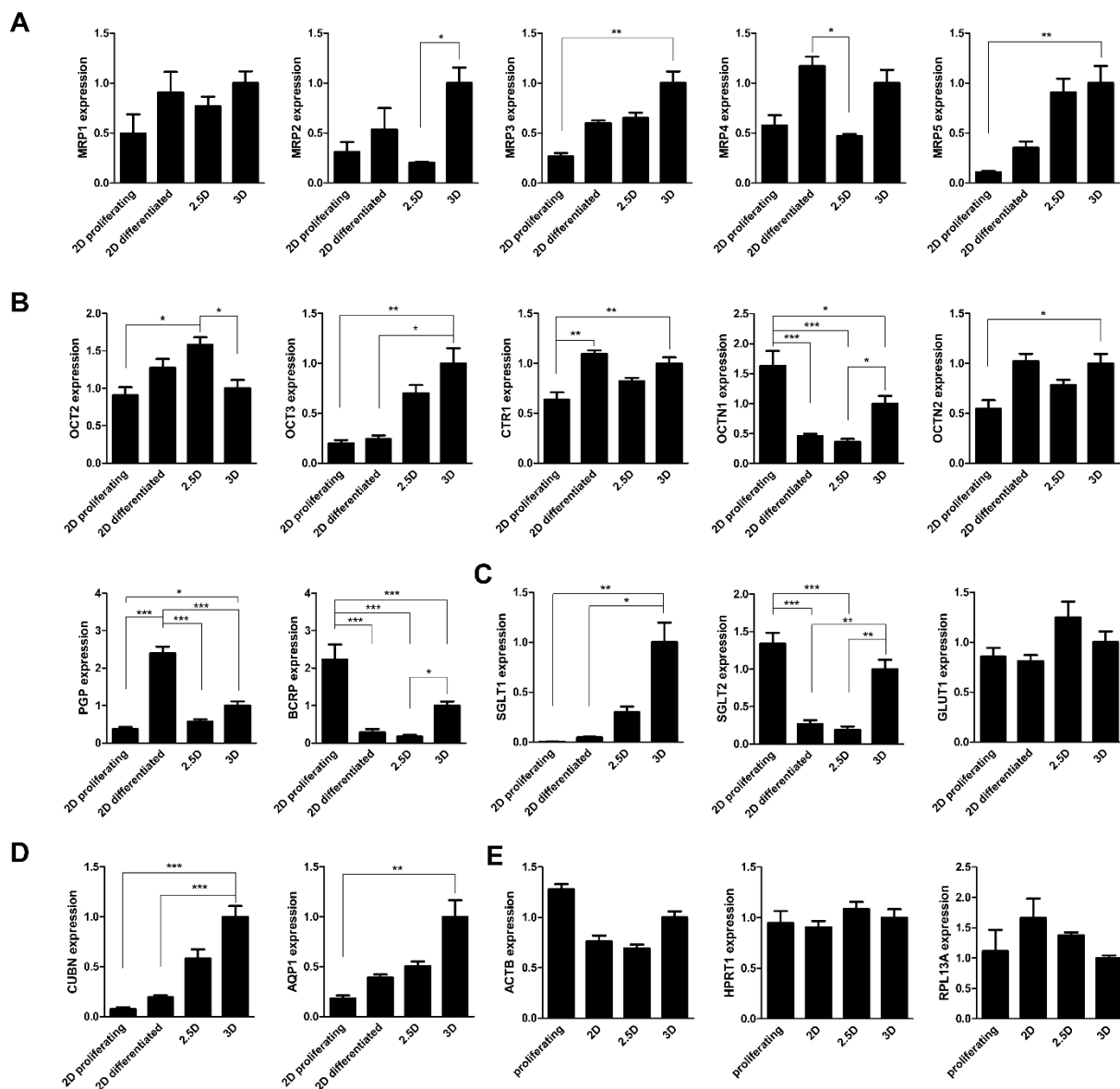


Fig. S1: mRNA expression levels of all tested transporters and membrane markers under different culture conditions

Expression levels of A) anion transporters, B) cation transporters, C) glucose transporters, D) protein and water transporters, E) housekeeping genes. Mean $\pm$ SEM, $n = 4$ with technical triplicates (2D and 2.5D); $n = 10$ with technical duplicates (3D). One-way ANOVA with Bonferroni's post-test. $p \leq 0.05$ (*), $p \leq 0.01$ (**), $p \leq 0.001$ (***). 2D = grown on plastic, 2.5D = grown on transwell inserts, 3D = grown in matrigel sandwich, MRP = multidrug resistance protein, OCT = organic cation transporter, CTR1 = copper transporter 1, OCTN = organic cation/carnitine transporter, PGP = multidrug resistance protein/p-glycoprotein, SGLT = sodium/glucose co-transporter, GLUT1 = glucose transporter 1, CUBN = cubilin, AQP1 = aquaporin 1, ACTB = β -actin, HPRT1 = hypoxanthine phosphoribosyltransferase 1, RPL13A = 60S ribosomal protein L13a.