Electronic Supplementary Material (ESM)

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Title: A map of human circular RNAs in clinically-relevant tissues

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The authors provide this supplement to give readers additional information about their work.

sample	total reads	%rRNA	non- rRNA	%genome	unmapped	circs total	circs QC	norm total	norm QC
ADA-SCID LCL	20.4	31.1	14.1	82.2	2.5	4473	159	99465	53293
adipose	17.9	38.4	11.1	84.3	1.7	2293	507	96986	71272
cartilage	3.4	33.7	2.3	81.9	0.4	1049	0	3747	479
chondrocytes	28.4	80.7	5.5	80.4	1.1	1104	148	67717	43437
cortex	16.4	45.1	9.0	87.2	1.2	2393	343	91765	61470
decidua	19.2	53.1	9.0	86.2	1.2	1989	115	100164	50402
EPC	19.9	54.0	9.2	80.3	1.8	1856	93	99809	58926
fibroblasts	11.3	37.8	7.0	83.0	1.2	2550	69	81844	38675
HUAEC	18.3	34.8	12.0	75.3	3.0	1753	211	103747	83096
HUVEC	13.6	91.2	1.2	75.7	0.3	428	19	29743	7690
LCL	23.0	51.8	11.1	82.7	1.9	3019	204	101740	57733
MSC	14.7	67.6	4.8	79.6	1.0	585	57	65267	42128
muscle	16.7	59.8	6.7	85.6	1.0	1796	109	89450	40168
osteocytes	16.3	65.7	5.6	78.8	1.2	1425	104	78022	55847
placenta	20.5	70.7	6.0	87.4	0.8	667	63	65192	38906
plasma	32.6	1.0	32.3	71.7	9.1	564	57	1109	155
neutrophils	15.9	37.0	10.0	88.2	1.2	1655	274	59767	39193
right atrium	20.7	39.6	12.5	85.2	1.8	2955	227	107733	57484
serum	29.1	2.0	28.5	75.2	7.1	415	39	5548	1725
platelets	24.3	30.1	17.0	86.6	2.3	8843	3324	61364	37316
umbilical cord	18.3	72.7	5.0	79.9	1.0	888	85	58718	31475
vena cava	16.8	26.0	12.5	86.6	1.7	4337	471	103063	52578
VSMC	14.2	44.6	7.9	80.3	1.6	1704	137	79970	56499
WAS LCL	25.1	20.2	20.0	83.3	3.3	5826	1071	123734	90684

Table S1. Normalized sequencing statistics for the studied samples. (LCL = Lymphoblastoid Cell Line)

Fig. S1.



Number of reads on head-to-tail splice junctions of 8760 detected circRNAs.

Fig. S2.



qRT-PCRs validated selected circRNAs (red labels) in various tissues that were at least 5x more resistant to RNAse R treatment.

Fig. S3.

а	Scale chr2: 148,630,000 206 _	20 kb ⊢ 148,635,000	148,640,000+	148,645,000	148,650,000 148,65 thrombocytes coverage	hg19 5,000 148,660,000	148,665,000	148,670,000	148,675,00	0 148,680,	000+ 148,68	35,000
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Â												
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a ACVR2A and b SMARCA5 circRNA/mRNA coverage (red peaks) in platelets. The

expression of non-circularized exons (black peaks) is barely visible.



Fig. S4.

Number of circular isoforms detected in genes hosting circRNAs.

Fig. S5.

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Supplement





a Differentially expressed linear RNAs in LCLs of one ADA-SCID patient and **b** one patient with Wiskott-Aldrich syndrome (WAS) in comparison to LCLs of a non-affected control.

Fig. S6.



a Electropherograms of Sanger sequencing confirmed head-to-tail splicing of the circRNAs *circCDC42BPA, circROBO1* and *circTNFRS11A*. **b** Controls in qRT-PCR quantifications of 3 Wiskott-Aldrich syndrome samples, 4 ADA-SCID samples, and 4 non-affected LCL controls (technical duplicates per group, bars: mean expression ±SEM, Student's T test, *** p < 0.001, ** p < 0.01, * p < 0.05).