

**Supplemental Information**

**A Spatiotemporal Organ-Wide Gene Expression  
and Cell Atlas of the Developing Human Heart**

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**Table S1. Overview of ST and single cell samples included in this study, as well as genes removed before data processing, Related to Figures 2 and 3.**

**Table S1A.**

<b>Sample (dorsal to ventral)</b>	<b>Raw reads</b>	<b>Number of spots covered by tissue</b>	<b>Unique genes per spot</b>	<b>Unique transcripts per spot</b>	<b>Library preparation method</b>
PCW 4.5-5_1	35432474	56	1386	2362	Manual
PCW 4.5-5_2	42802183	61	1448	2590	Manual
PCW 4.5-5_3	38221671	71	1350	2333	Manual
PCW 4.5-5_4	40923584	60	1396	2624	Manual
PCW 6.5_1	89176207	105	2201	4516	Robot
PCW 6.5_2	83350842	105	3147	7349	Robot
PCW 6.5_3	76277275	160	3224	7671	Robot
PCW 6.5_4	82851124	187	3603	9248	Robot
PCW 6.5_5	86504781	219	2067	4467	Manual
PCW 6.5_6	86567722	210	2494	5755	Manual
PCW 6.5_7	67086957	180	2130	4340	Manual
PCW 6.5_8	76964748	184	2476	5417	Manual
PCW 6.5_9	72654593	187	1543	2962	Manual
PCW 9_1	78472629	241	1523	3285	Manual
PCW 9_2	96767149	245	1692	3576	Manual
PCW 9_3	95976109	246	1952	4337	Manual
PCW 9_4	106641157	237	1534	3259	Manual
PCW 9_5	86081779	206	1801	3947	Manual
PCW 9_6	83186609	214	1813	4045	Manual

**Table S1B.**

Sample	Raw reads	Number of cells
PCW 6.5-7_single-cell (fraction i)	156229605	1979
PCW 6.5-7_single-cell (fraction ii)	152327878	2047

**Table S1C.**

MALAT1  
SLC4A1  
KDM5D  
ANK1  
DDX3Y  
EIF2AK1  
HBQ1  
FTL  
GATA1  
KLF1  
USP9Y  
NFE2  
MT1G  
RPS4Y1  
HBZ  
GYPC  
HEMGN  
SLC25A37  
ALAS2  
EPB41  
AHSP  
GYPA  
UTY  
HBA2  
HBG2  
EIF1AY  
HBA1  
HBM  
HBE1  
HBG1

MTRNR2L4

HBB

MTRNR2L5

MTRNR2L8

MTRNR2L10

MTRNR2L3

MTRNR2L1

MTRNR2L7

MTRNR2L12

MTRNR2L11

MTRNR2L13

MTRNR2L6