

Fig. 1

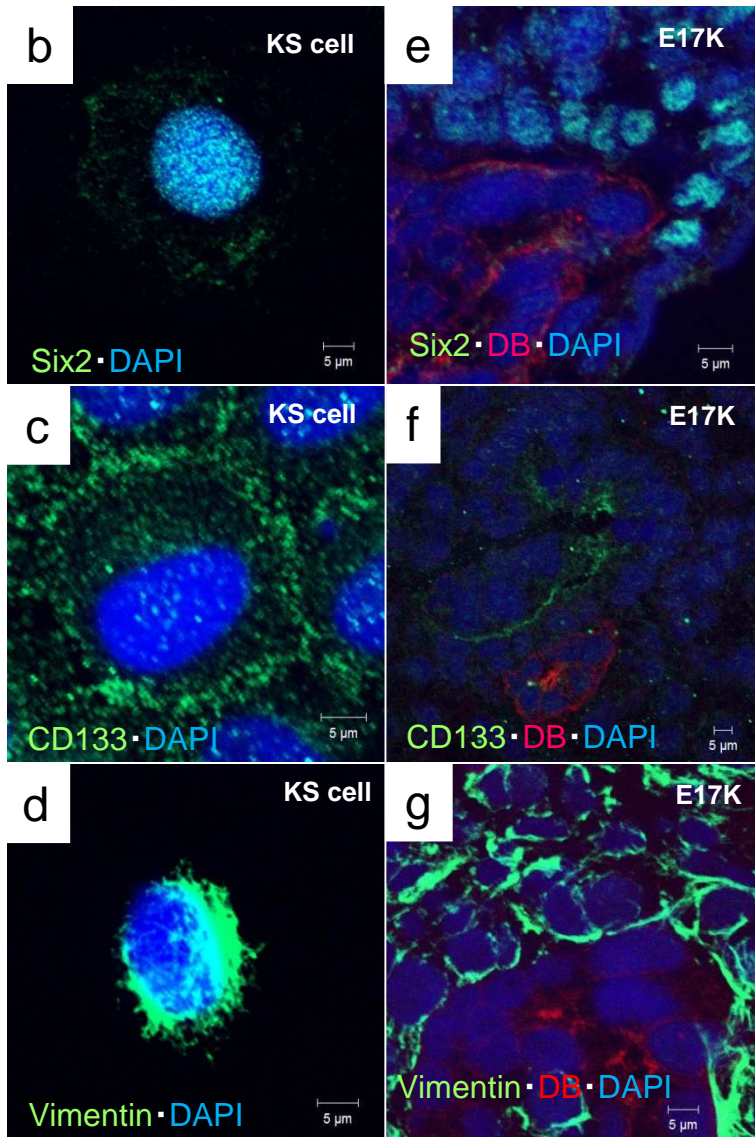
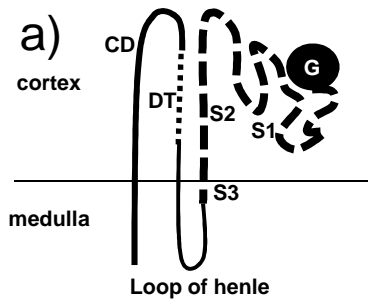


Fig. 2

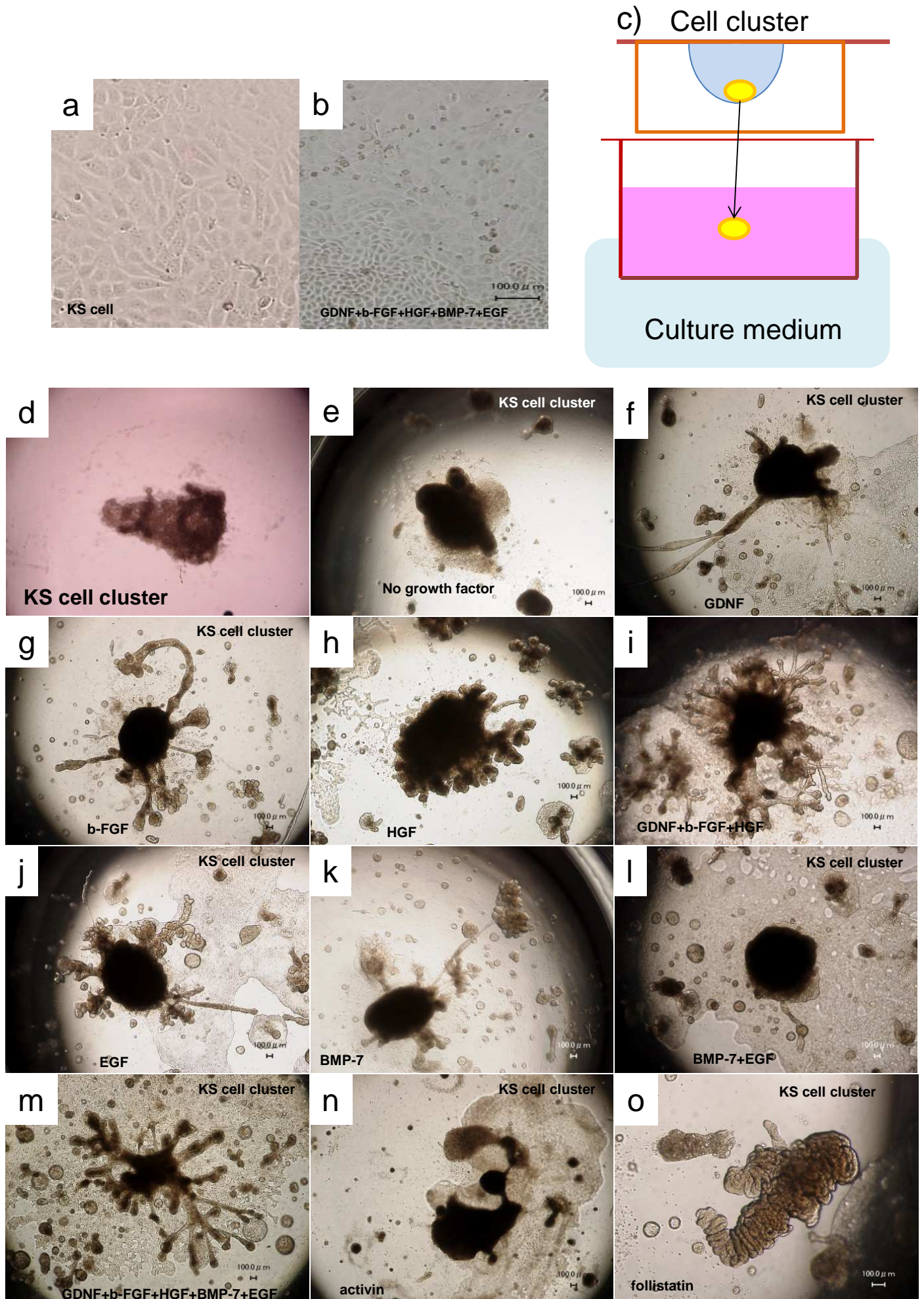




Fig. 3

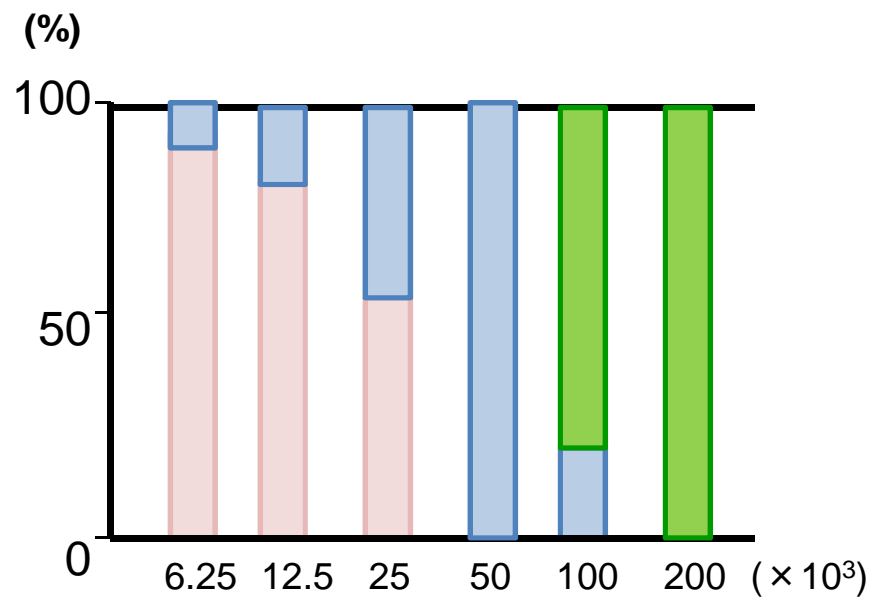
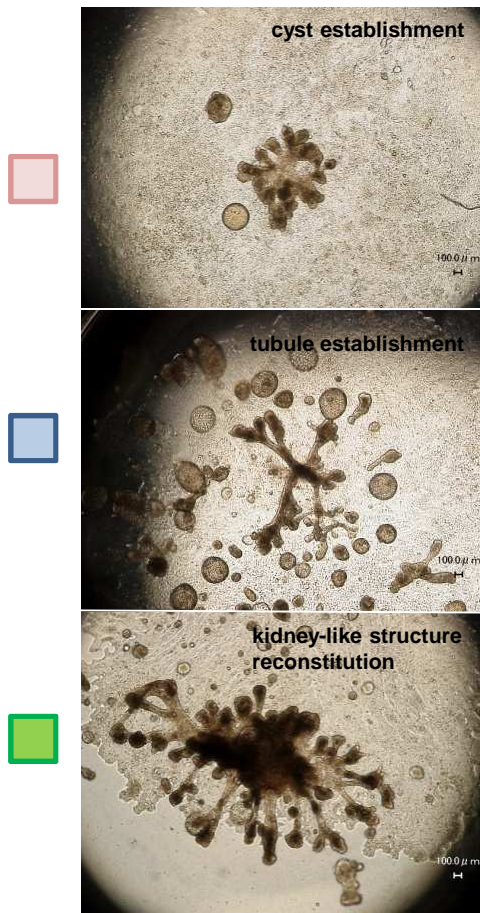


Fig. 4

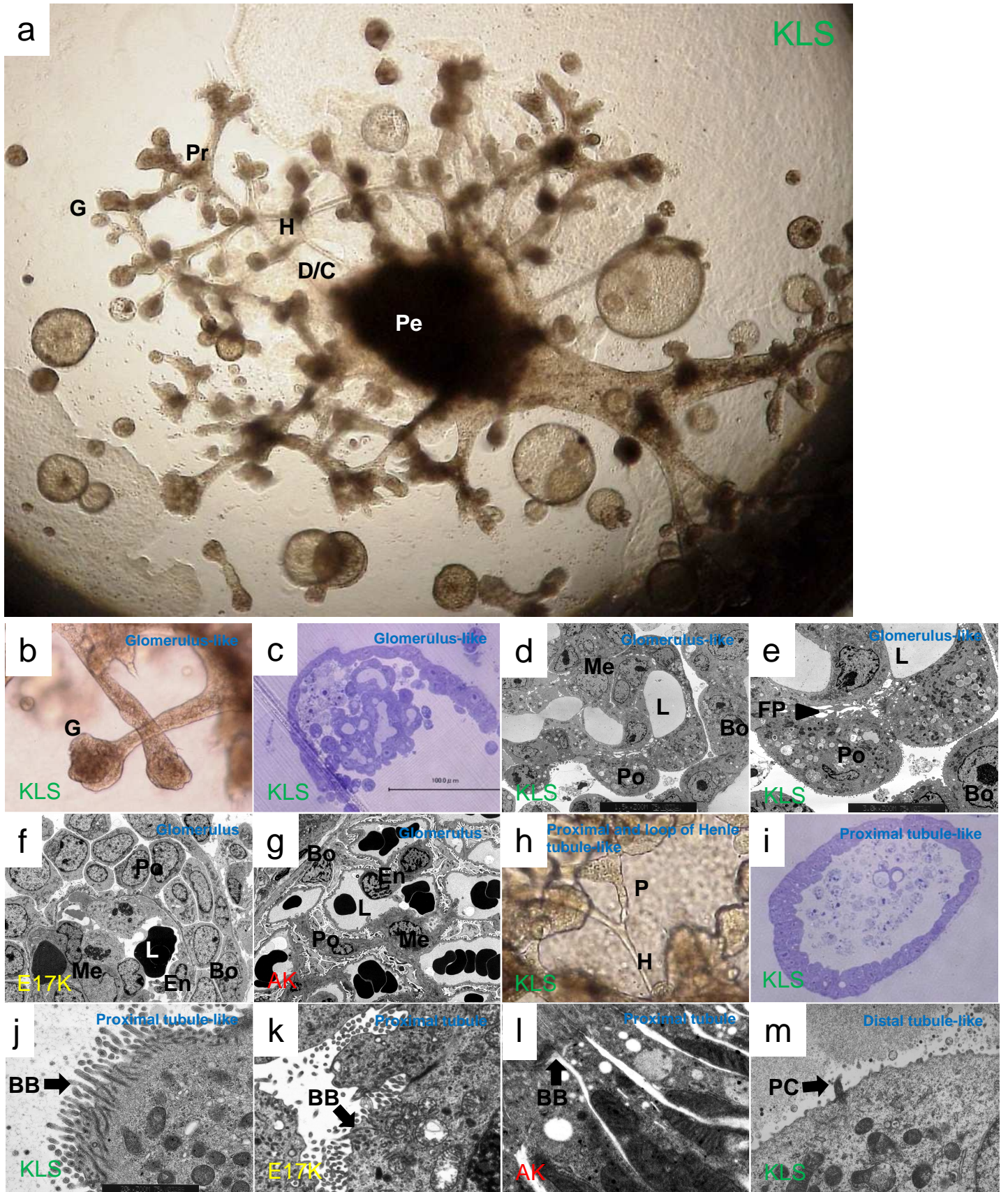




Fig.5

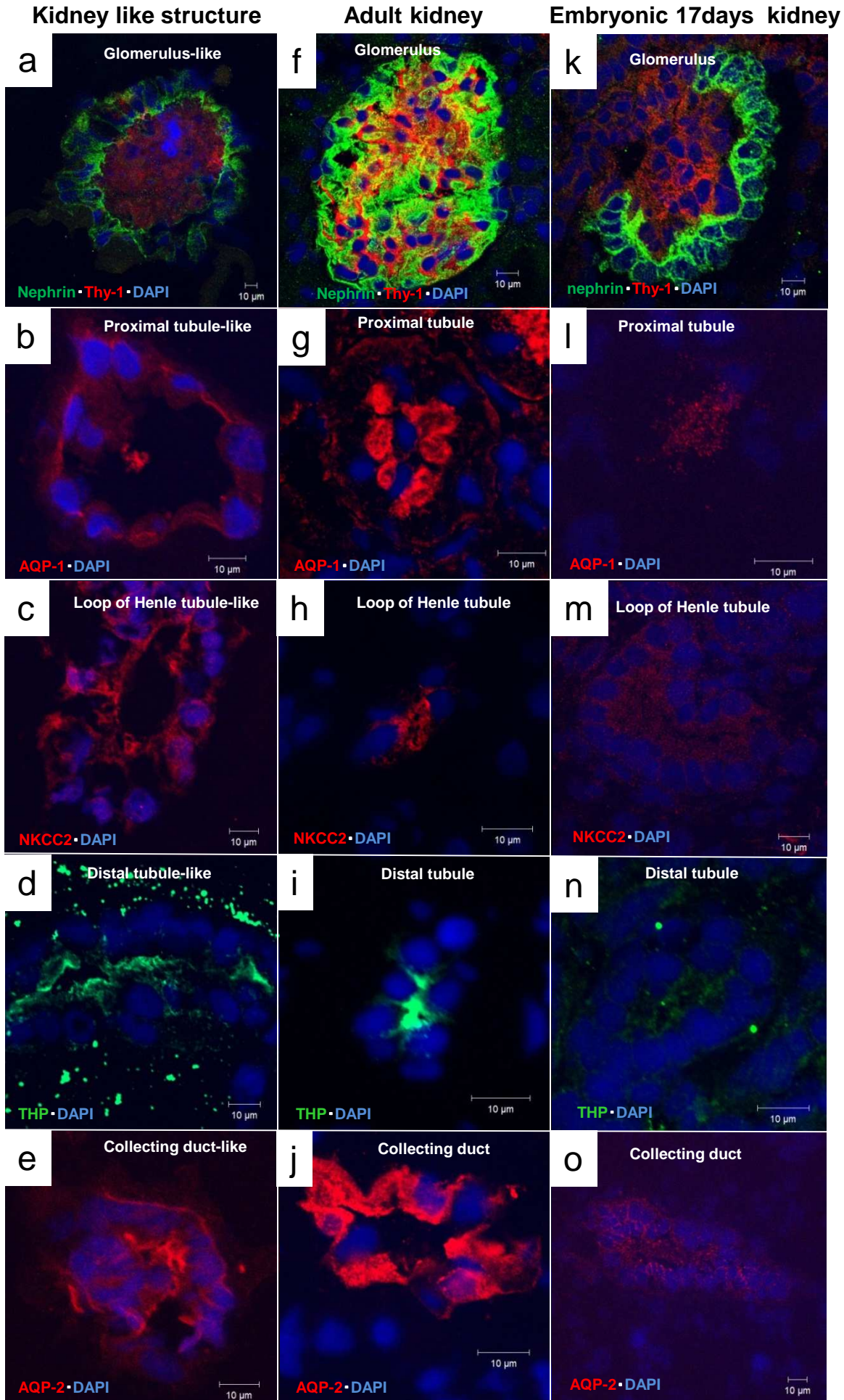


Fig. 6

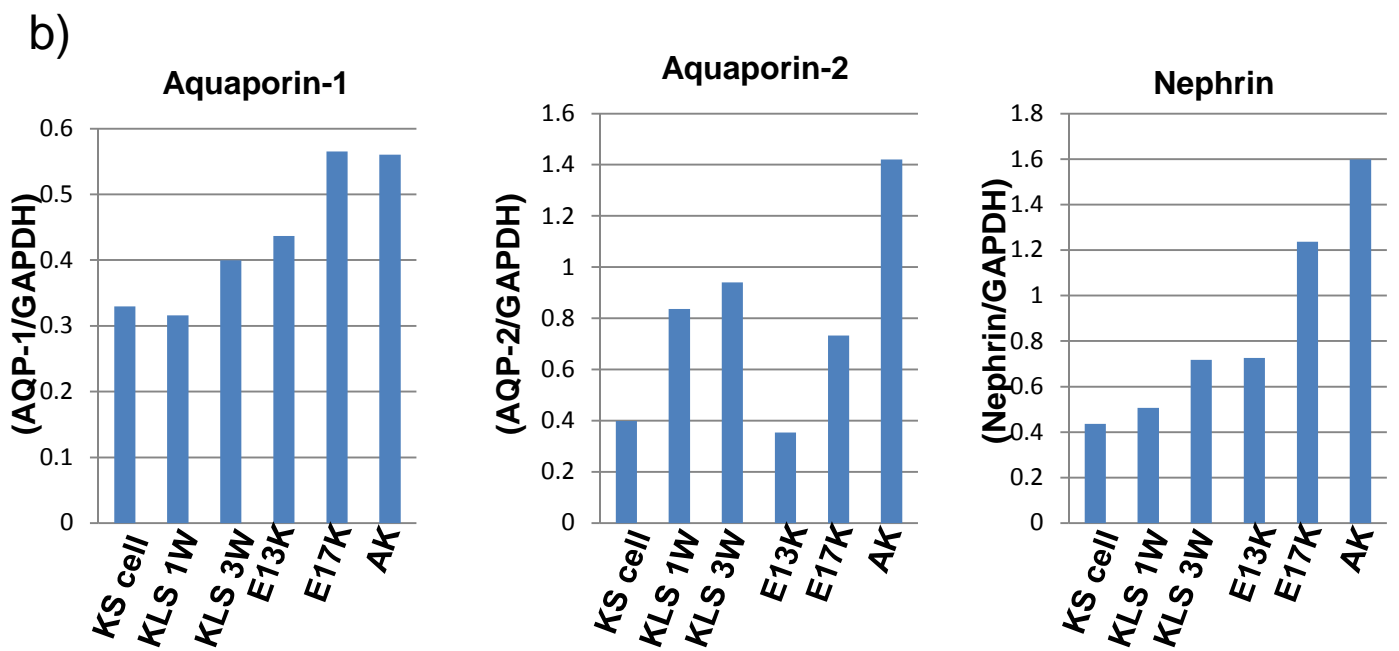
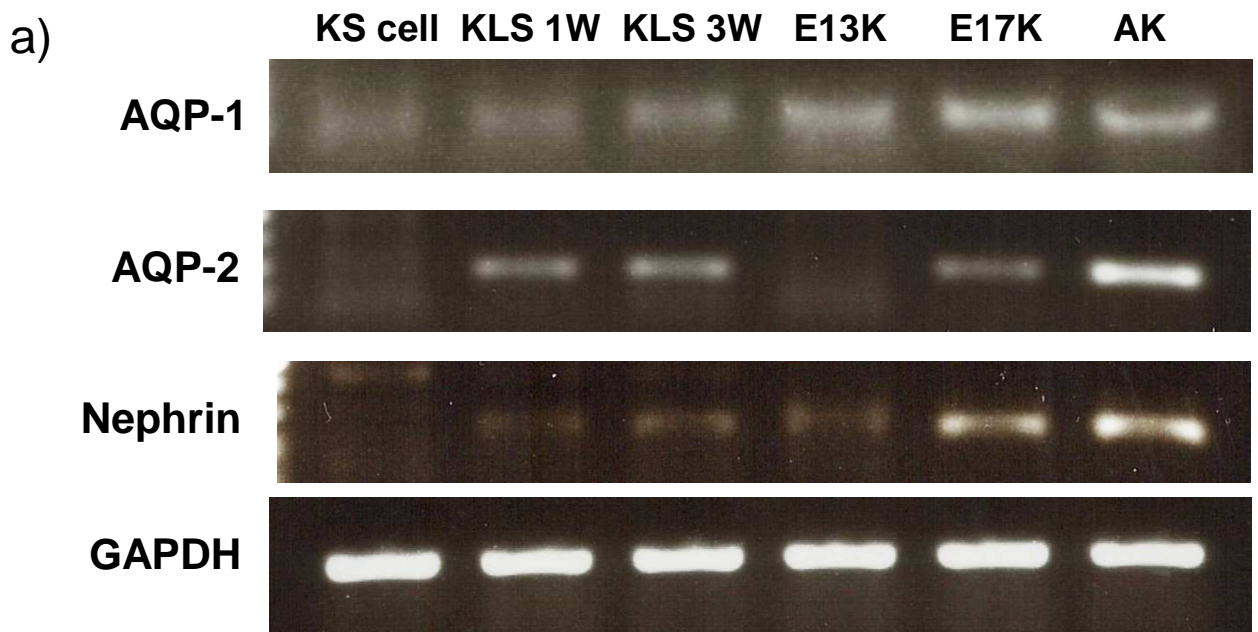
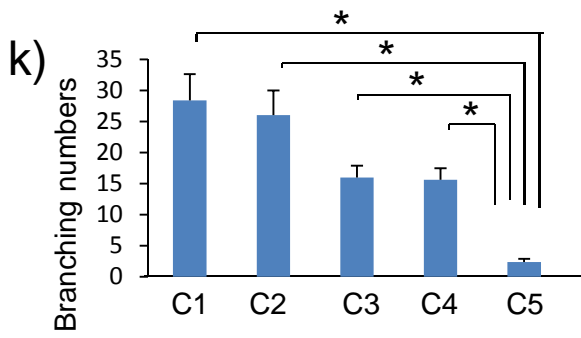
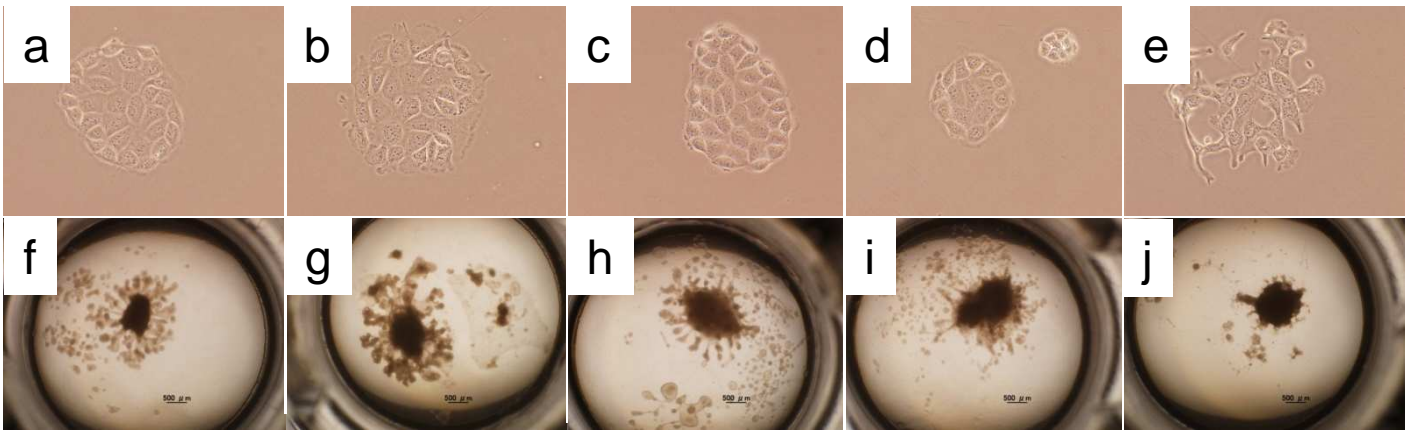


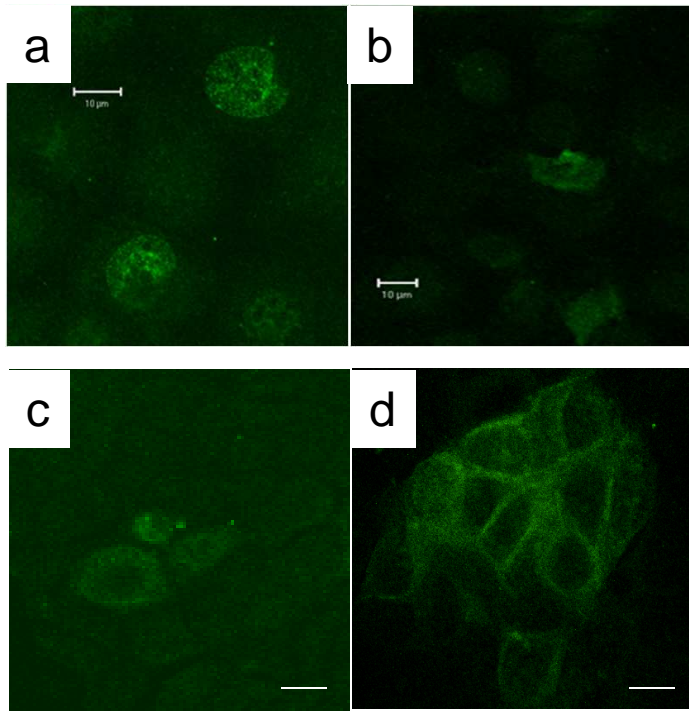


Fig.7

KLS formation from single KS cell colony

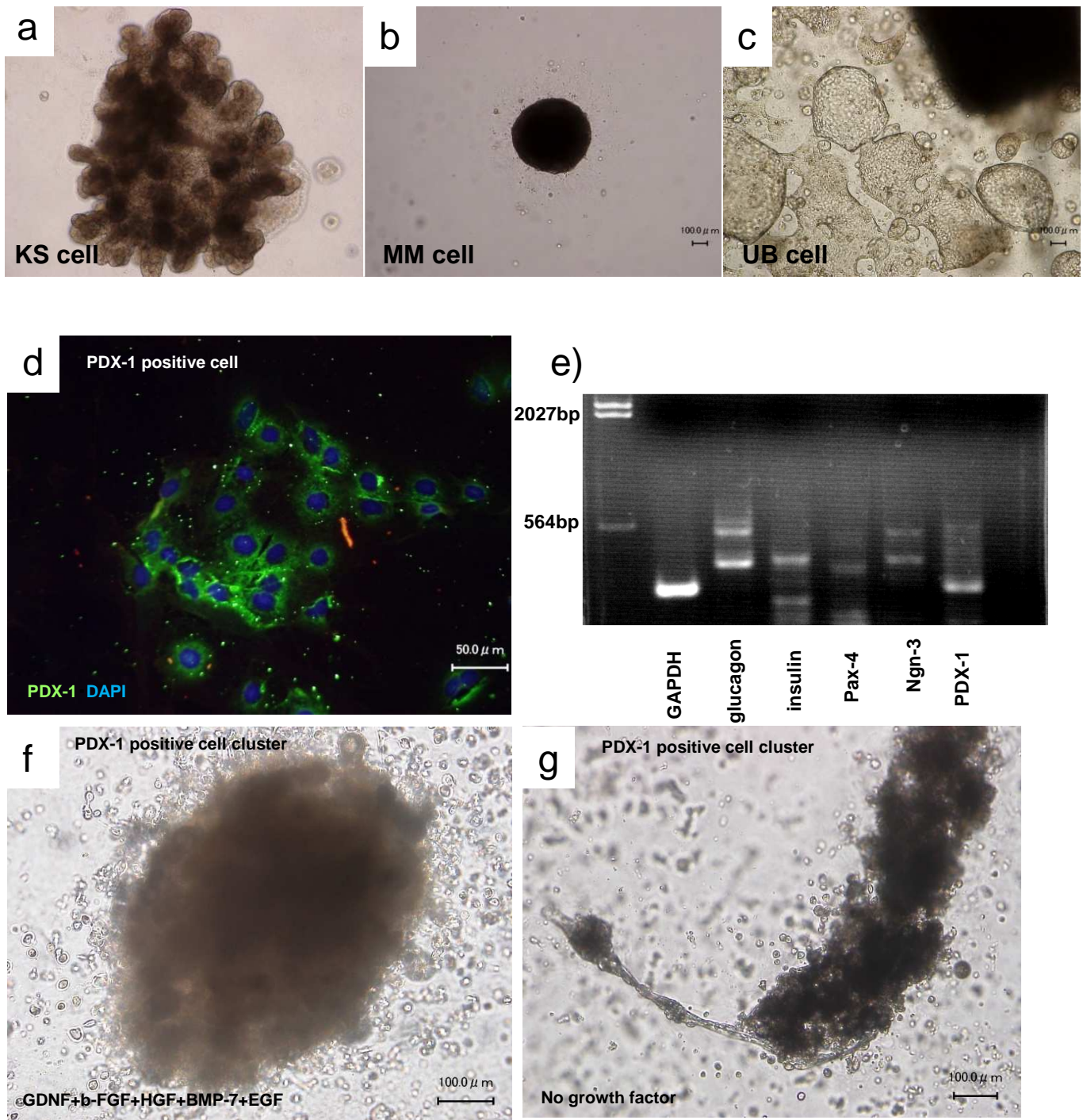


# Supplementary Fig. S1

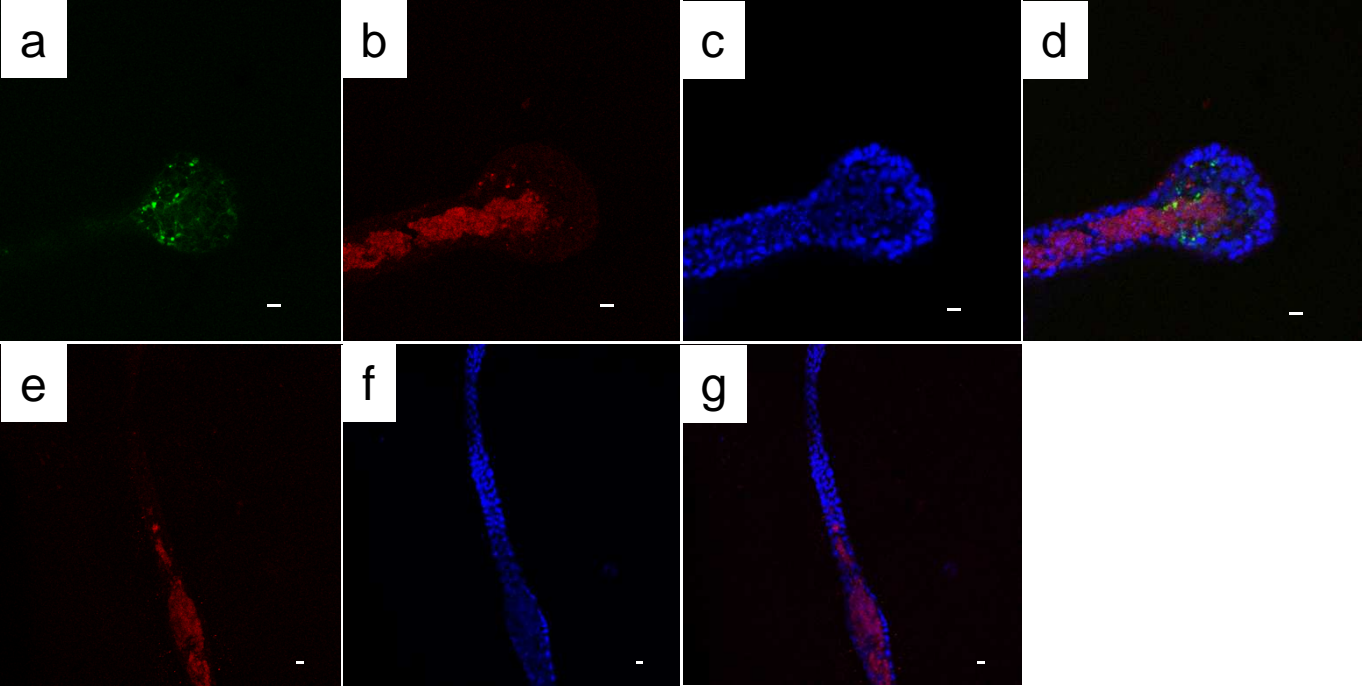




# Supplementary Fig. S2

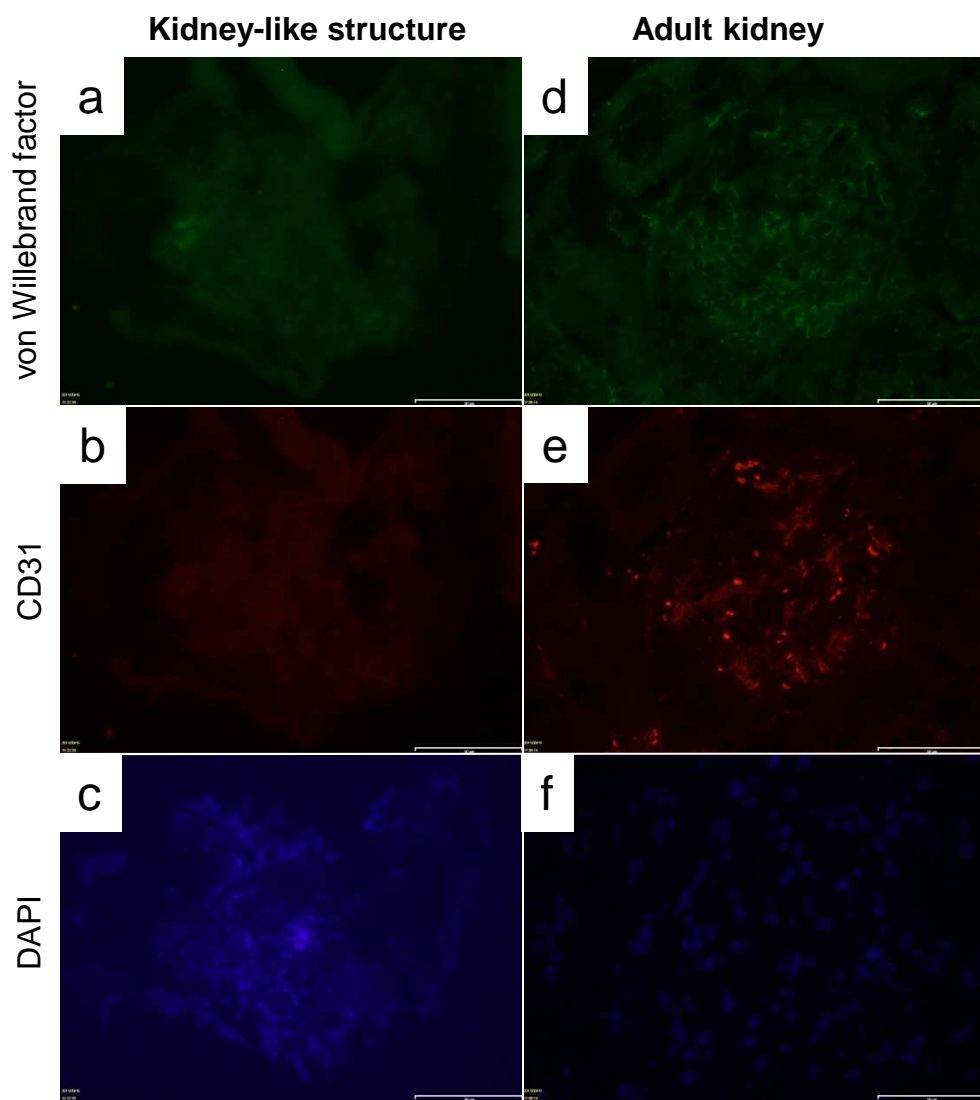


Supplementary Fig. S3





# Supplementary Fig. S4



## Supplementary Table. 1

Gene Name	Forward	Reverse
Aquaporin-1	GCTGTCATGTATATCATCGCCCAG	AGGTCATTTCCGGCCAAGTGAGT
Aquaporin-2	TTGCAGGAACCAGACACTTG	GCGGAGACGAGCACTTTTAC
Nephrin	GGCGTAGCTTAGGGAC	CCTAGCCGCCAATCAC
PDX-1	CTCGCTGGGAACGCTGGAACA	GCTTTGGTGGATTTTCATCCACGG
Ngn-3	TGGCGCCTCATCCCTTGGATG	CAGTCACCCACTTCTGCTTCG
Pax-4	TGGCTTTCTGTCCTTCTGTGAGG	TCCAAGACTCCTGTGCGGTAGTAG
insulin	TCCTGCCCCTGCTGGCCCTGC	AGTTGCAGTAGTTCTCCAG
glucagon	ATCATTCCCAGCTTCCCAGA	CGGTTCCCTTGGTGTTCAT
GAPDH	TGATGACATCAAGAAGGTGGTGAAG	TCCTTGGAGGCCATGTAGGCCAT