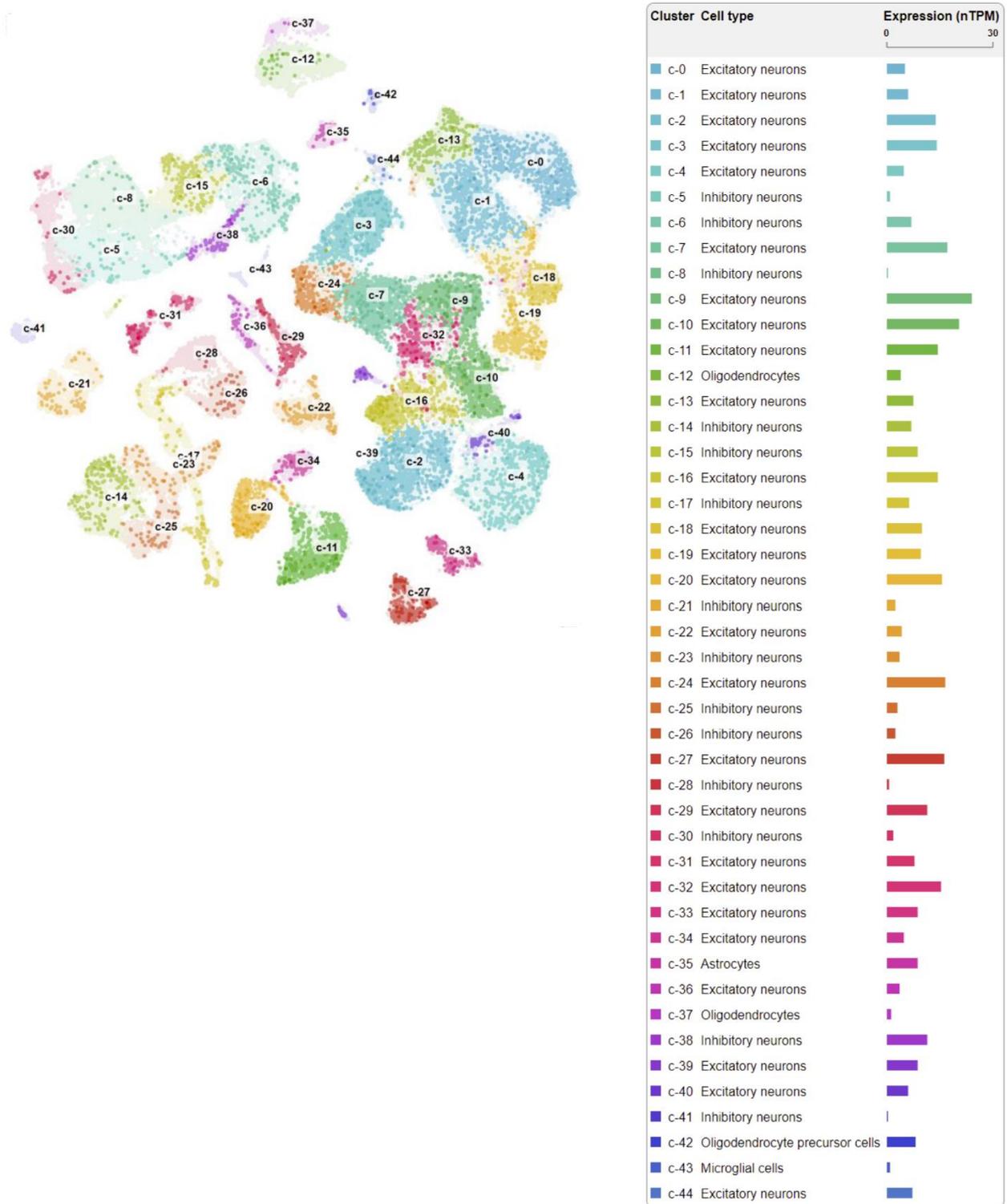
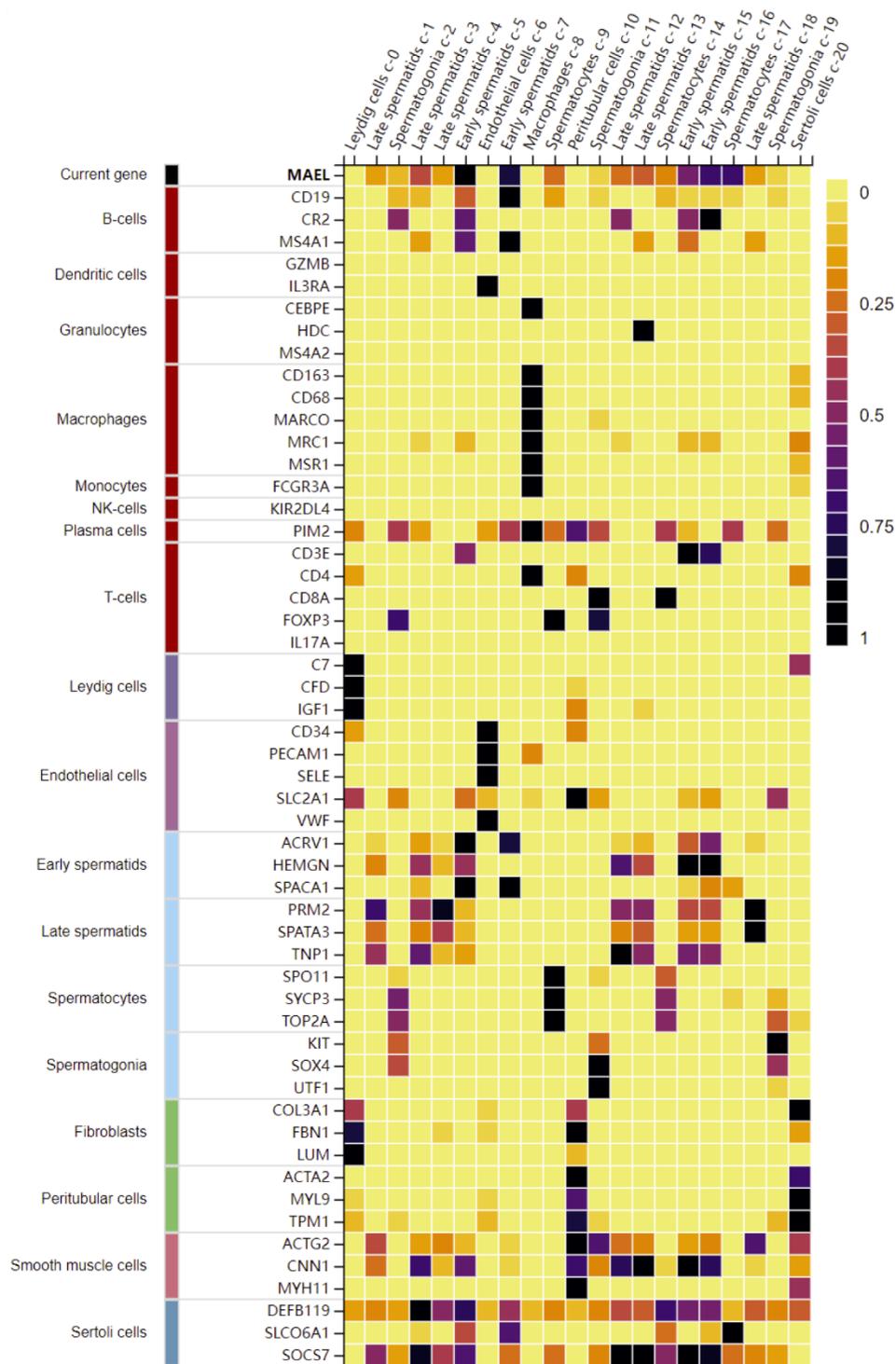


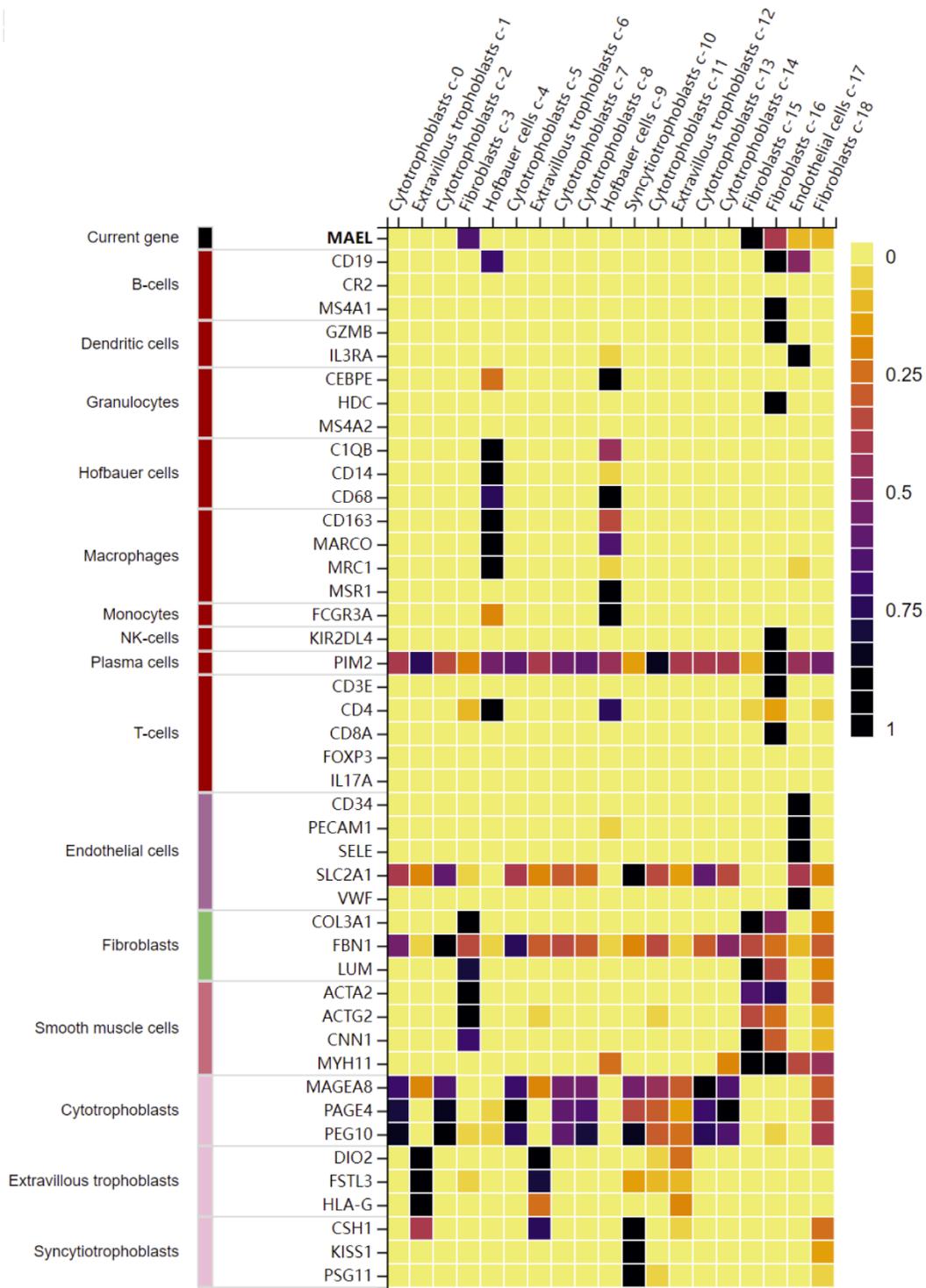
SUPPLEMENTARY FIGURES



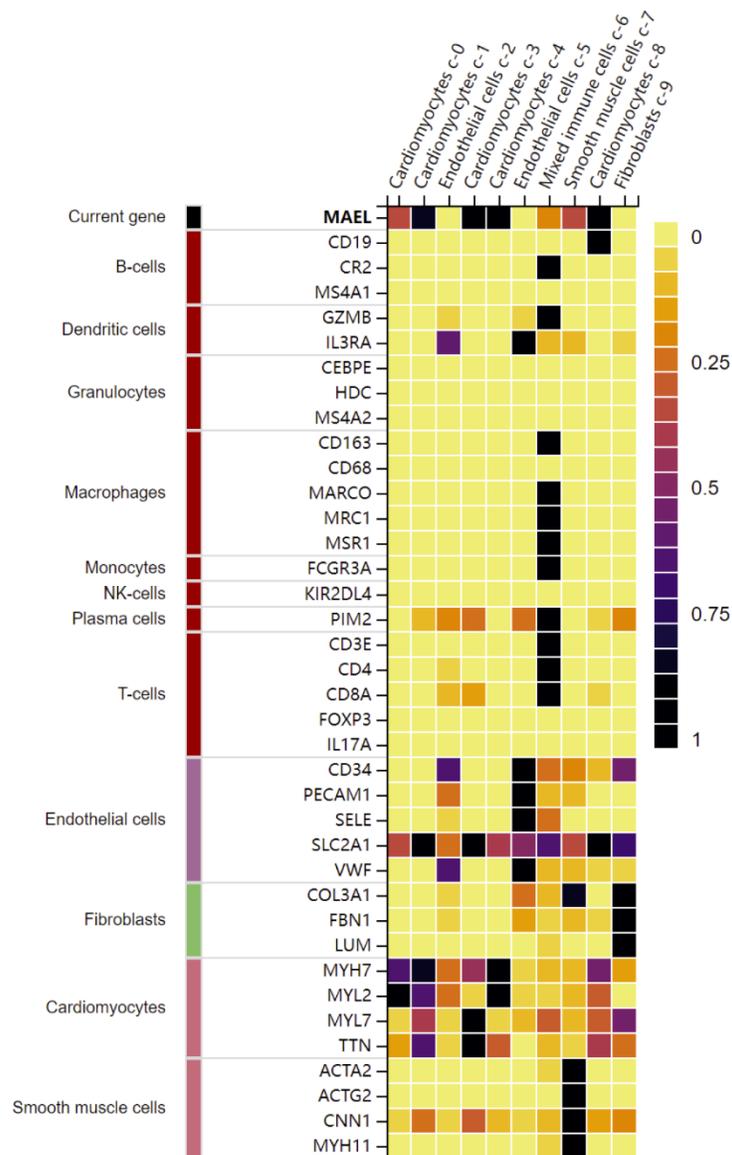
Supplementary Figure 1. UMAP plot and MAEL expression in the single cell clusters of normal brain (Allen brain map).



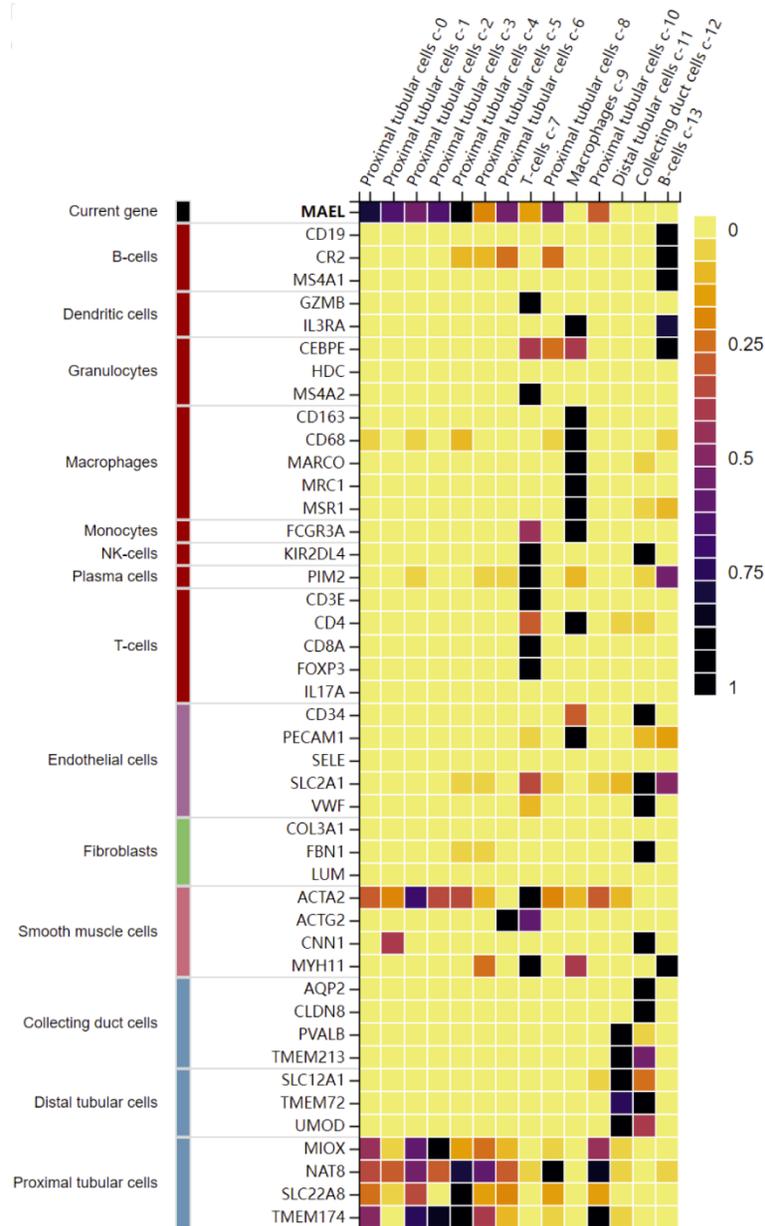
Supplementary Figure 2. mRNA expression of *MAEL* and cell type markers in different single cell type clusters of normal testis (GSE120508). Color legend: fraction of the highest expression.



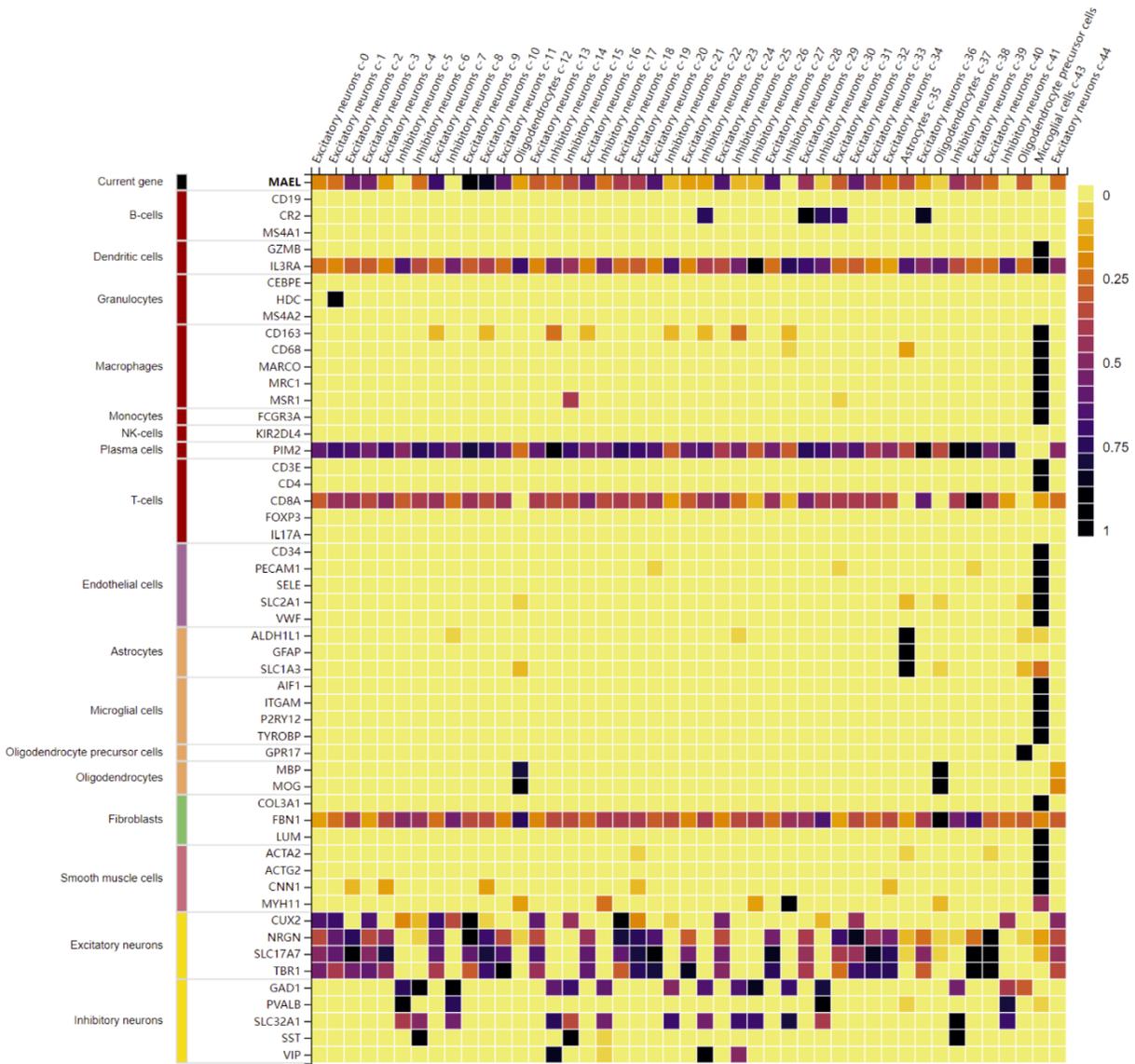
Supplementary Figure 3. mRNA expression of *MAEL* and cell type markers in different single cell type clusters of normal placenta (E-MTAB-6701). Color legend: fraction of the highest expression.



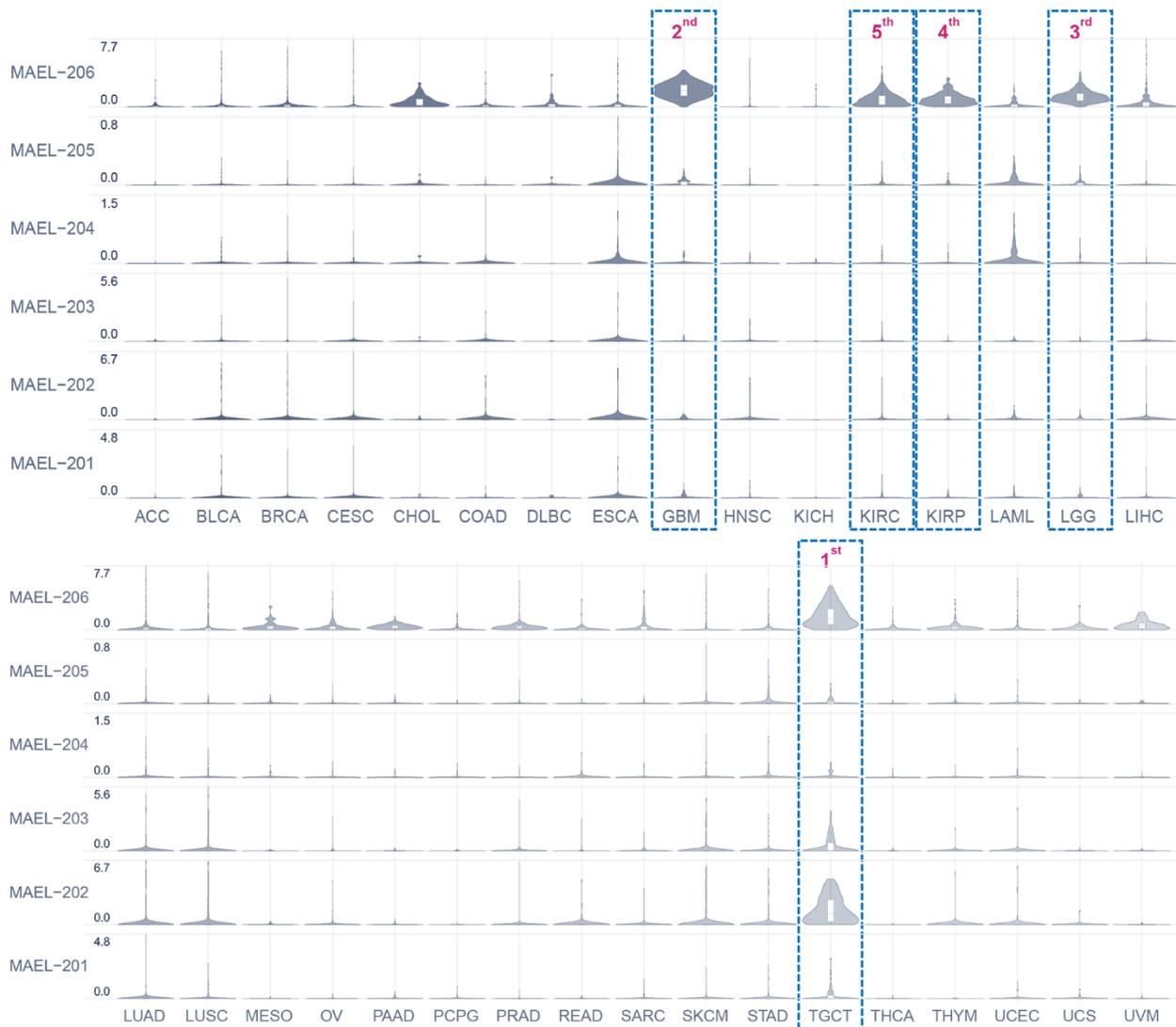
Supplementary Figure 4. mRNA expression of *MAEL* and cell type markers in different single cell type clusters of normal heart muscle (GSE109816). Color legend: fraction of the highest expression.



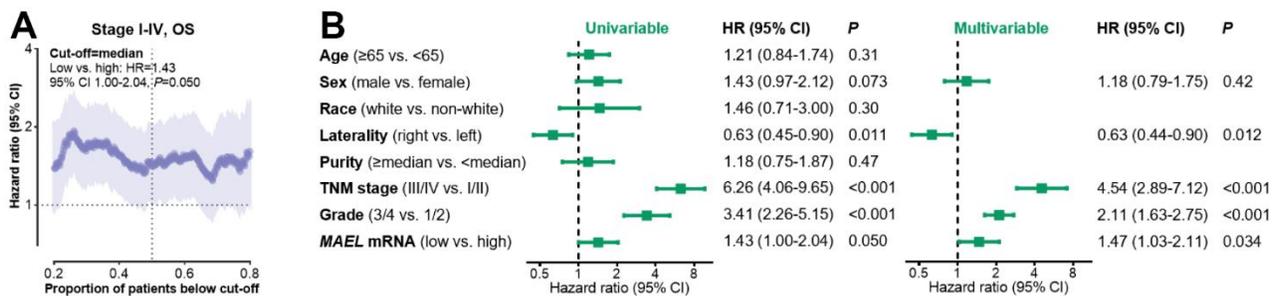
Supplementary Figure 5. mRNA expression of *MAEL* and cell type markers in different single cell type clusters of normal kidney (GSE131685). Color legend: fraction of the highest expression.



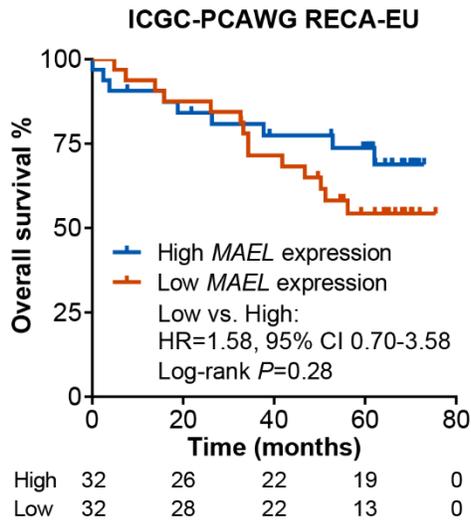
Supplementary Figure 6. mRNA expression of *MAEL* and cell type markers in different single cell type clusters of normal brain (Allen brain map). Color legend: fraction of the highest expression.



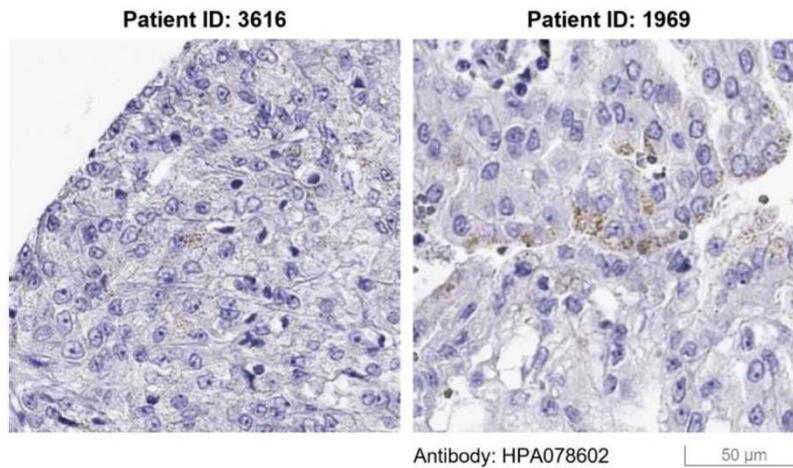
Supplementary Figure 7. mRNA expression of the six transcripts of *MAEL* among 33 types of cancer (unit: $\log_2[\text{TPM}+1]$).



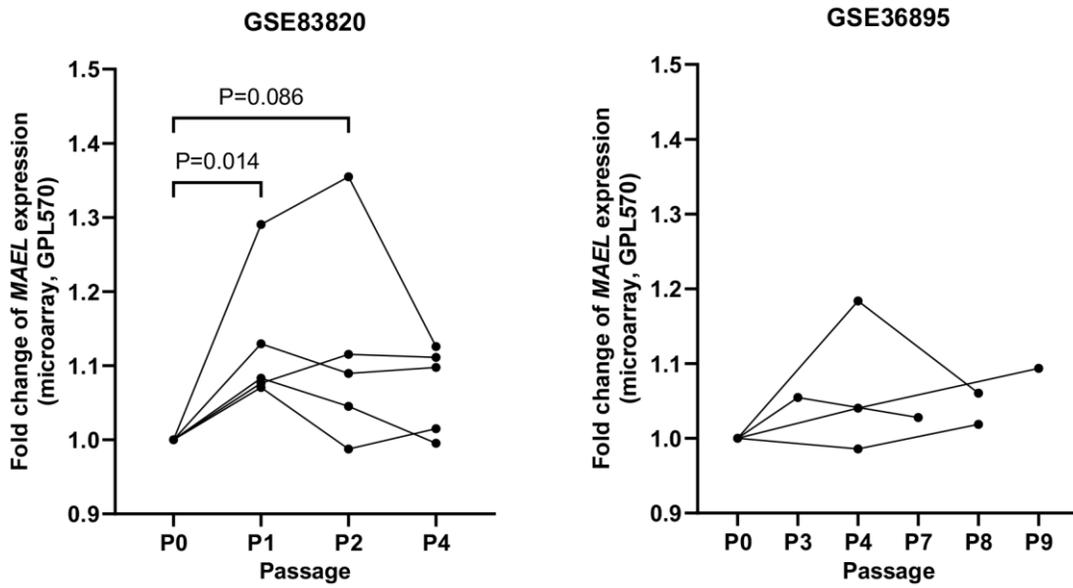
Supplementary Figure 8. Association between *MAEL* expression and recurrence-free survival in the clear cell renal cell carcinomas of the TCGA-KIRC cohort.



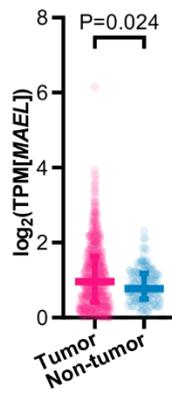
Supplementary Figure 9. Association between *MAEL* expression and overall survival in the clear cell renal cell carcinomas of the ICGC-PCAWG RECA-EU cohort.



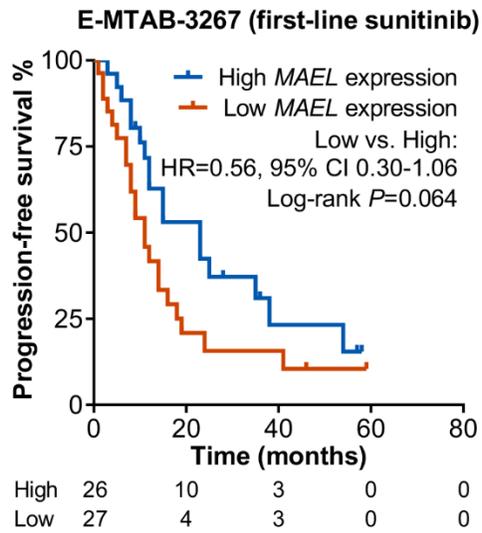
Supplementary Figure 10. Immunohistochemical staining of *MAEL* in ccRCC samples.



Supplementary Figure 11. Expression of *MAEL* in ccRCC xenograft models.



Supplementary Figure 12. *MAEL* expression in clear cell renal cell carcinomas (TCGA-KIRC) and normal kidneys (TCGA-KIRC and GTEx).



Supplementary Figure 13. High *MAEL* expression was associated with favorable progression-free survival on first-line sunitinib in advanced clear cell renal cell carcinomas (E-MTAB-3267).