



Supplemental Figure 13.  $\text{CB}^2$  detects essential genes missed by other leading methods: the case of *RPL27*. sgRNA quantification for *RPL27* in cell line (A) RT112, (B) UMUC3 using CRISPRn and (C) RT112 using the CRISPRi library. The top panels show CPM (count per million) of sgRNAs that target *RPL27* for each group ( $T_0$  and  $T_1$ ), and the bottom panels indicate the reported FDR for *RPL27* in each screen across all the methods. A horizontal line at  $\text{FDR} = 0.01$  is used as a threshold for statistical cutoff.  $\text{CB}^2$  outperforms all other methods of identifying *RPL27* as an essential gene across CRISPR benchmark datasets.