



**Figure S4.** PCR verification of gene deletion strains from Bioneer collection. A total of 18 strains sensitive to 5FU were randomly selected to check whether the appropriate target gene was disrupted. PCR experiments using specific primers for 5' upstream and 3' downstream of the deletion cassette and common primers at the KanMX4 module allowed us to estimate that approximately 90% of the strains had the correct deletion.