## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: RPPA data from U2OS and HCT116 cells treated with IR

File Name: Supplementary Data 2

Description: Regression and correlation analysis on RPPA data

File Name: Supplementary Data 3

Description: The matrix generated from the IPA network

File Name: Supplementary Data 4

Description: MATLAB results-CCNB1 as the downstream target

File Name: Supplementary Data 5

Description: MATLAB results-CCND1 as the downstream target

File Name: Supplementary Data 6

Description: RPPA data from ELT3 cells treated with rapamycin

File Name: Supplementary Software

Description: R code and MATLAB code used for RPPA data analysis