

Legends for Supplementary Data 1-7:

Title: Supplementary Data 1

Description: List of primer names and sequences used in high-throughput screens.

Title: Supplementary Data 2

Description: Interaction perturbation results for ExAC variants.

Title: Supplementary Data 3

Description: Interaction perturbation results for somatic mutations from COSMIC.

Title: Supplementary Data 4

Description: Interaction perturbation results for disease-associated mutations from HGMD.

Title: Supplementary Data 5

Description: DUAL-FLUO assay results for protein stability screen.

Title: Supplementary Data 6

Description: Protein Complementation Assay results for retested SNV-interaction pairs.

Title: Supplementary Data 7

Description: List of disruptive variants occurring in drug target-relevant genes.