Title: Supplementary Data 1

Description: The full easyCLIP protocol and oligonucleotide sequences.

Title: Supplementary Data 2

Description: Description of high-throughput sequencing datasets included in this study.

Title: Supplementary Data 3

Description: Raw counts, counts per million reads, and counts per ten billion proteins for all

proteins.

Title: Supplementary Data 4

Description: P values for all proteins across all RNAs, determined by negative binomial fits to

random non-RBPs in all cases.

Title: Supplementary Data 5

Description: Peak locations for all proteins in all RNAs.

Title: Supplementary Data 6

Description: Cross-linking molecule number estimates.

Title: Supplementary Data 7

Description: EdgeR analysis of easyCLIP data for wild-type and mutant forms of recurrently

mutated RBPs. P values were calculated with the EdgeR function glmQLFTest.

Title: Supplementary Data 8

Description: RNA-seq analysis of recurrent missense mutations. Adjusted P values calculated

by DESeq2 (see methods).