## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

**Description:** Summary of eEF1A N-terminal interactome data (Related to Fig 1b)

File Name: Supplementary Data 2

**Description:** Description of peptides for array based profiling of MT13-C activity (Related to Fig. 3b-c)

File Name: Supplementary Data 3

Description: Summary of proteome data from HAP-1 WT and METTL13 KO cells (Related to

Supplementary Fig. 7b)

File Name: Supplementary Data 4

Description: MS Support for lysine methylation sites detected in HAP-1 WT and METTL13 KO cells

(Related to Fig 5A)

File Name: Supplementary Data 5

Description: Summary of eEF1A WT interactome data (Related to Supplementary Fig 14)

File Name: Supplementary Data 6

Description: Summary of eEF1A-5KR interactome data (Related to Supplementary Fig 14)

File Name: Supplementary Data 7

**Description:** Plasmids generated for and used in the current study