Amicoumacin A induces cancer cells death by targeting the eukaryotic ribosome

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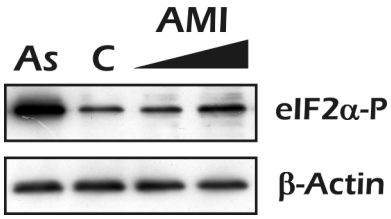
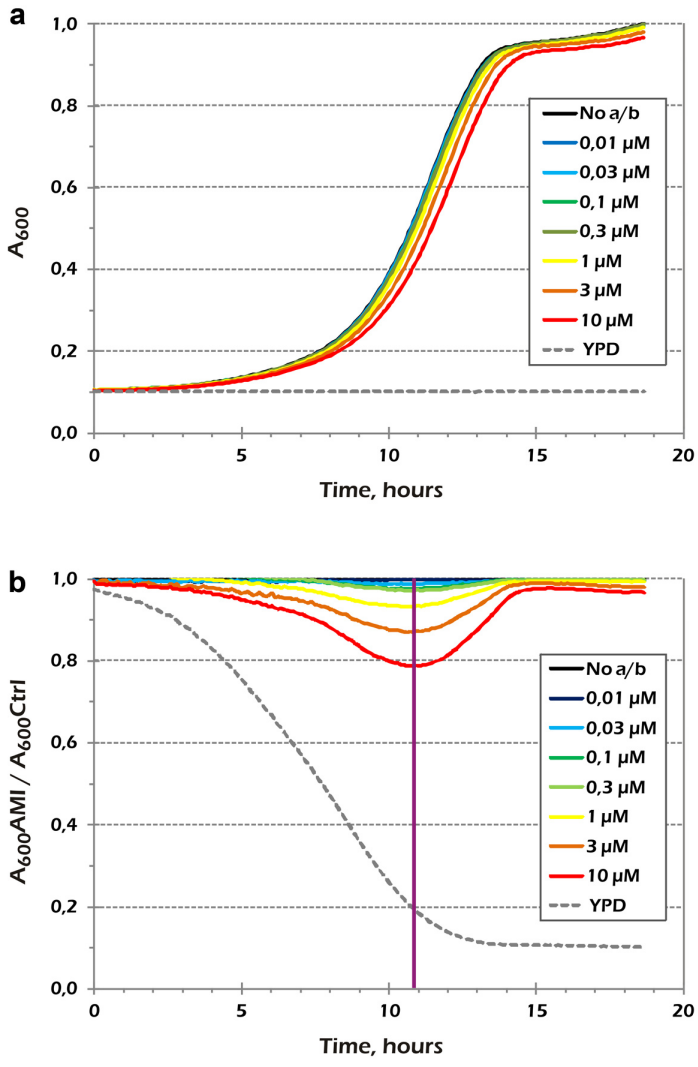
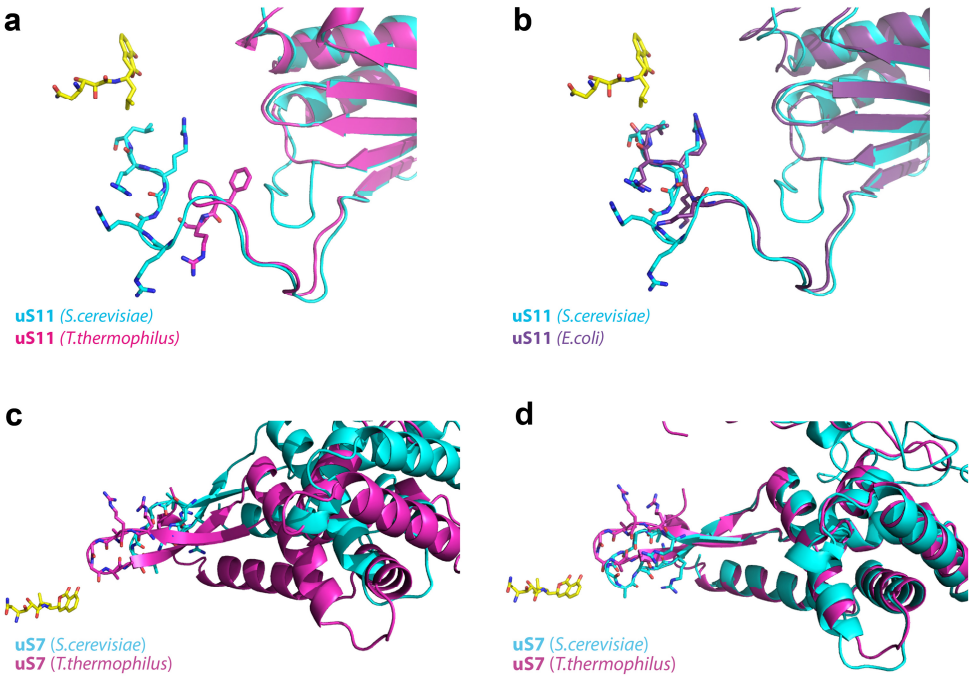
SUPPLEMENTARY FIGURES



Supplementary Figure 1. Induction of eIF2 phosphorylation in HEK293T cells by amicoumacin A. C – untreated cells; As – 2 h incubation with 200 µM sodium arsenite; AMI – 2 h incubation with 1 µM or 5 µM amicoumacin A.



Supplementary Figure 2. Yeast culture growth curves. Yeast cells were grown in a microplate reader (in 24-well plate) at 30 °C with continuous shaking with or without amicoumacin A. (**a**) OD600 values measured every 5 min are shown. (**b**) The ratios of the OD600 values in amicoumacin A containing wells and antibiotic-free ones were calculated.



Supplementary Figure 3. Interactions of uS11 and uS7 proteins in eukaryotic and bacterial ribosome with amicoumacin A. The antibiotic is shown in yellow. (**a-c**) Structures of 80S and 70S ribosomes were aligned based on the helix 23 in 18S or 16S rRNA. (**a**) Yeast uS11 protein is shown in blue, uS11 from *T.thermophilus* is shown in pink (PDB entry 4W2F), and other ribosomal components are omitted for clarity. (**b**) Yeast uS11 protein is shown in blue, and uS11 from the structure of *E.coli* ribosome is shown in violet (PDB entry 4YBB). (**c**) Yeast uS7 is shown in blue, and uS7 from *T.thermophilus* is shown in pink (PDB entry 4W2F). (**d**) Alignment of the structure of uS7 protein from yeast ribosome on the structure of uS7 in bacterial ribosome. Amicoumacin A is shown in yellow, yeast uS7 is shown in blue, uS7 from *T.thermophilus* is shown in pink (PDB entry 4W2F), and other ribosomal components are omitted for clarity.

Supplementary Figure 4. Alignment of the structure of yeast 40S ribosomal subunit in complex with amicoumacin A and the structure of human 40S subunit in complex with HCV IRES (PDB entry 5A2G). Yeast 40S subunit is shown in wheat, amicoumacin A in yellow, HCV IRES in red, and the human 40S subunit is omitted for clarity.