Supplementary material

Cap-related modifications of RNA regulate binding to IFIT proteins

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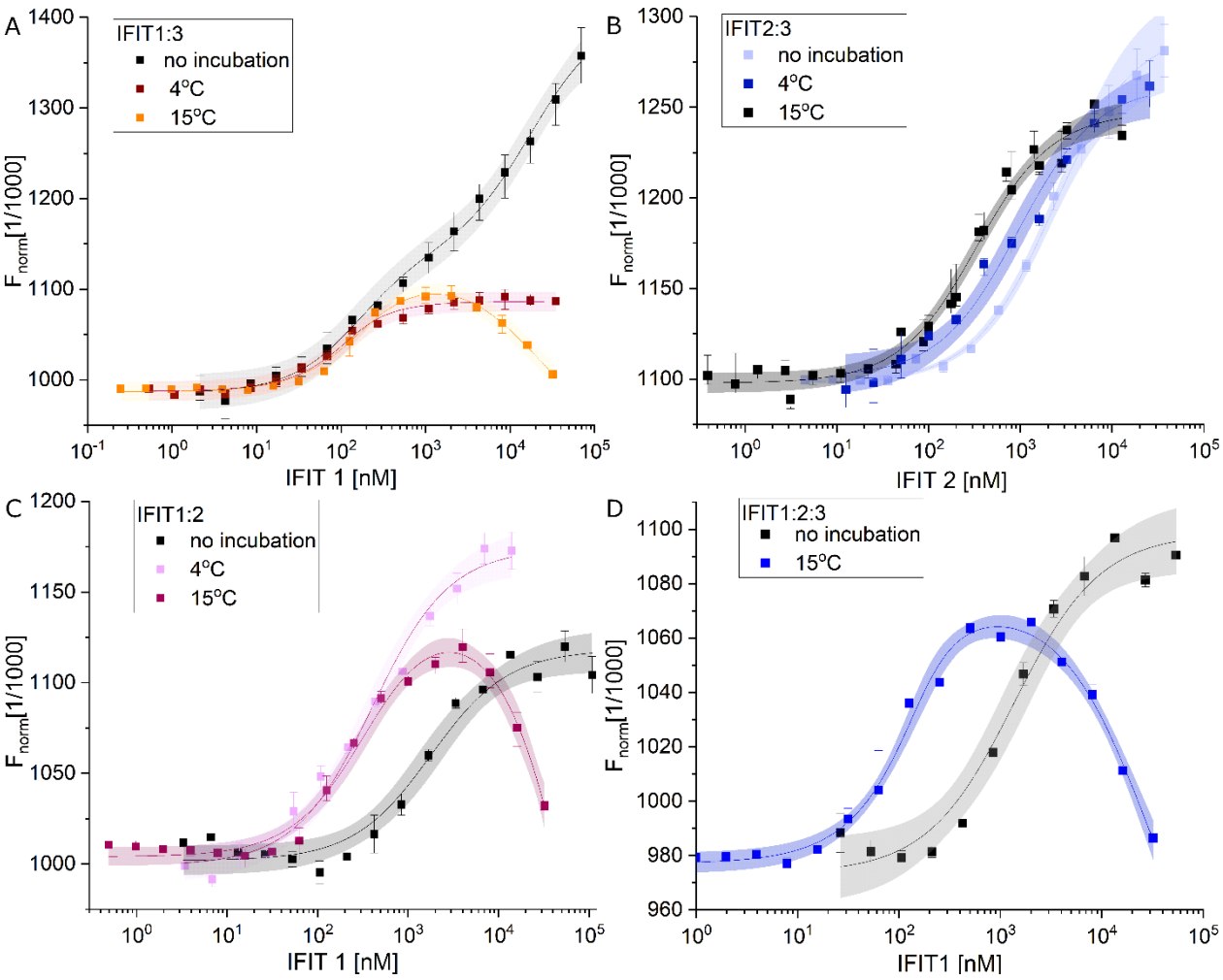


Figure S1

Representative MST pseudo-titration data for the formation of IFIT complexes. The measurements were conducted at 22 °C, after 30 minutes pre-incubation at 4 °C and 15 °C or without the pre-incubation step. Squares represent experimental points, solid lines represent results of fitting and color area represents 95% confidence bands for the used model. IFIT1 added in the increasing concentration range served as a ligand protein in experiments (A), (C) and (D). Formation of IFIT1/IFIT2/IFIT3 trimer was examined with the preformed IFIT2/IFIT3 complex (D). For IFIT2/IFIT3 complex formation, IFIT2 was used as a ligand protein (B).

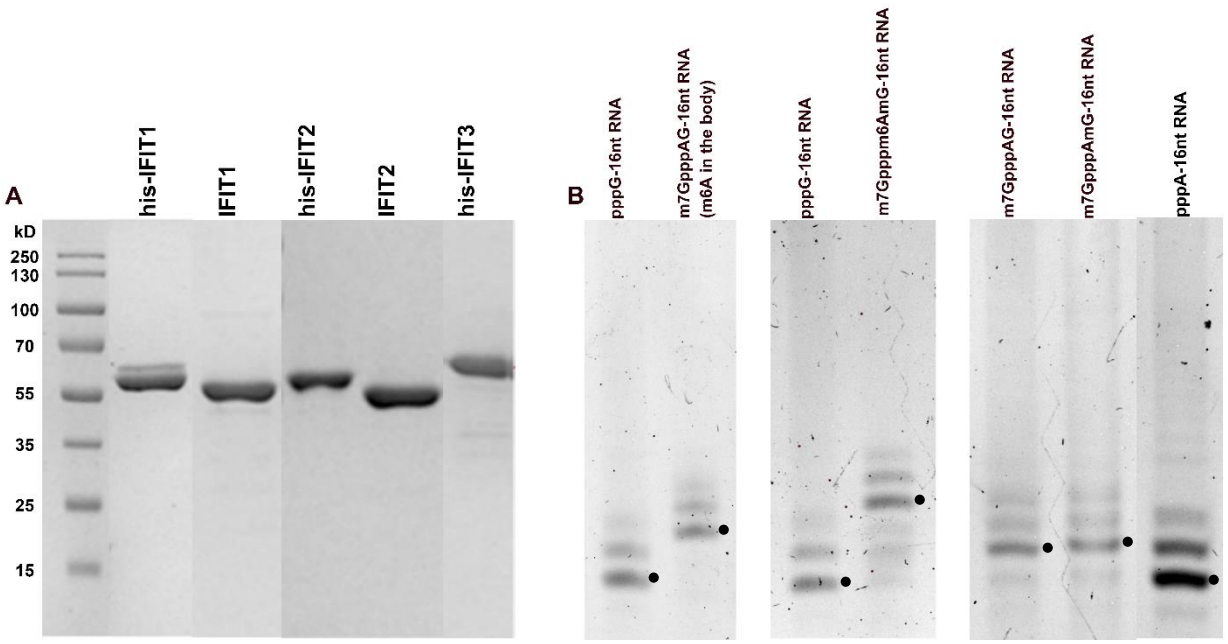
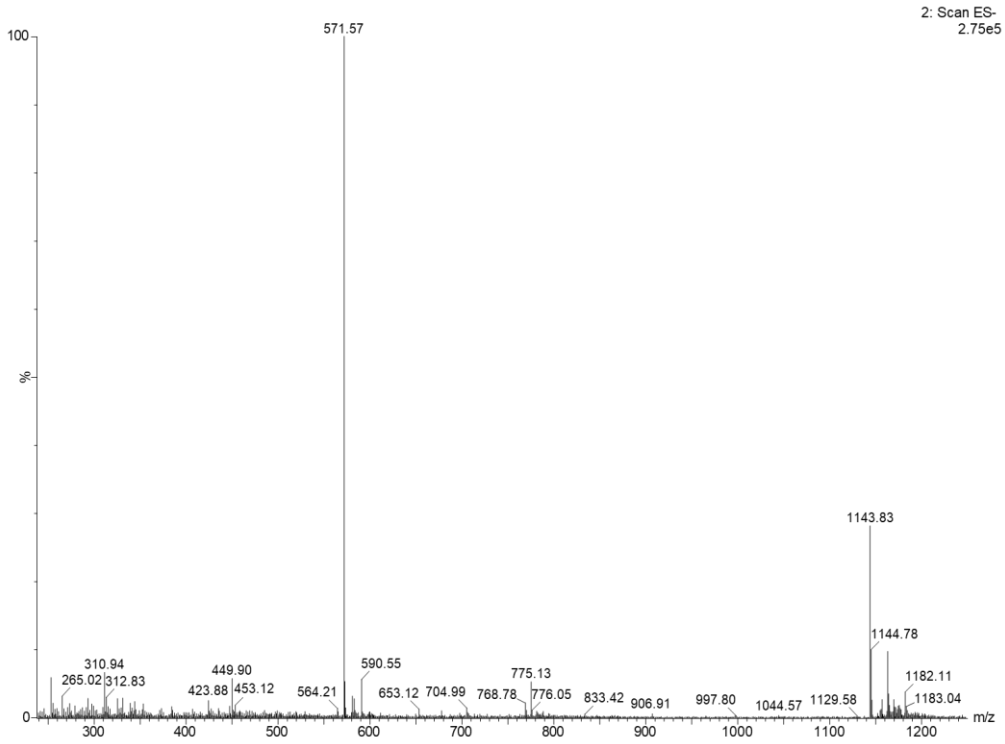


Figure S2.

IFIT proteins and short RNA bearing various modifications of the cap structure at the 5' end used in this work. (A). SDS-page of IFIT proteins after purification by Ni-NTA and size exclusion chromatography. From left to right: IFIT1 with his-tag, IFIT1 without his-tag, IFIT2 with his-tag, IFIT2 without his-tag and IFIT3 with his-tag. (B). Denaturing polyacrylamide gel of short 16-nt RNAs with different cap analogues (marked with dots). Additional n + 1 and n + 2 bands originated from nontemplated addition of nucleotides during in vitro transcription.

$m^7Gppp(A_m)pG$

MS $[M-H]^-$ ESI



$m^7Gppp(m^6A_m)pG$

MS $[M-H]^-$ ESI