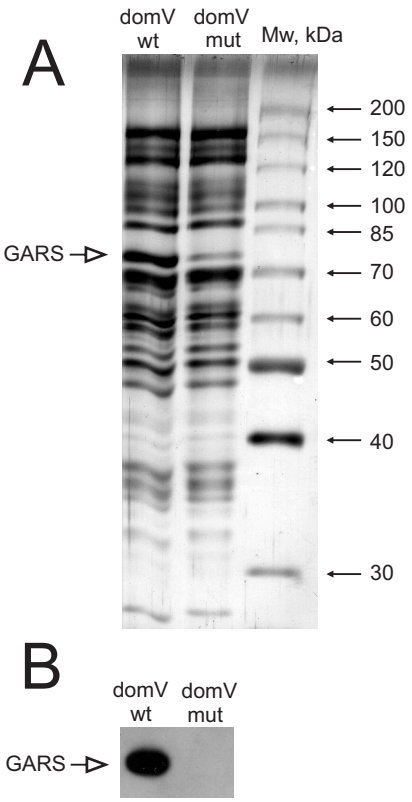
P1	5’ TCCGAGGTTGGGATTAGCCGC 3’
P2	5’ GCAGGTGGTCACAATAGAGTGATTGG 3’
P3	5’ ATTAGGATCCATGGACGGCGCGGGGGCTGAGG 3’
P4	5’ TGATCTCGAGTCATTCCTCGATTGTCTCTTTTTTACC 3’
P5	5’ATTAGGATCCGACCGAGCAAAAATGGAAGATACC 3’
P6	5’ TGATCTCGAGTCATTCCTCGATTGTCTCTTTTTTACC 3’
P7	5’ ATTAGGATCCATGGACGGCGCGGGGGCTGAGG 3’
P8	5’TGATCTCGAGTCACATGATCCTACCCAGGCCGAAGG 3’
P9	5’ CGCCGTAATACGACTCACTATAGGGAGCTTATCGATACCGTCG 3’
P10	5' $(T)_{50}$AACTTGTTTATTGCAGCTTATAATGG 3'
P11	5’ ATTGTTCCAGGAACCAGGGCG 3’
P12	5’ CGCCGTAATACGACTCACTATAGGGCCTATTGAGCTACATAAGAATCC 3’
P13	5’ GATTGTCACCATAAGCAGCCAC 3’
P14	5’ CGCCGTAATACGACTCACTATAGCATTGGTGGTTCAGTGGTAGAATTCTCGCCTGCCACGCGGGAGGCCCGGG 3’
P15	5’ TGGTGCATTGGCCGGGAATCGAACCCGGGCCTCCCGCGTGGCAGGCG 3’
P16	5’ AAACAGATAGATAATGAGTC 3’
P17	5’ TGCAGTTGCTCTCCAGCG 3’

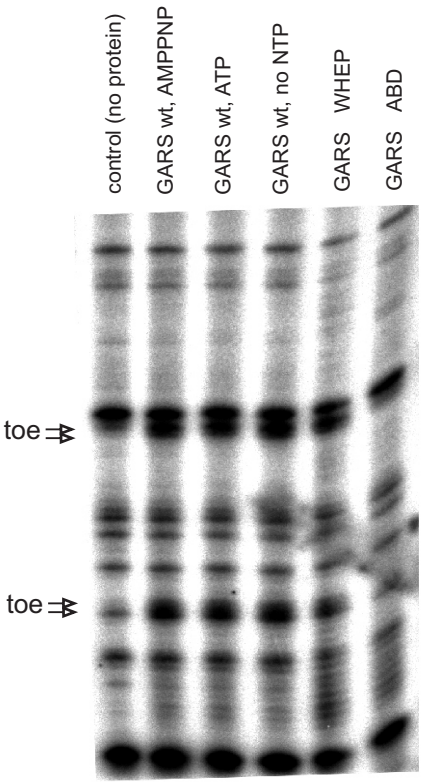
Table of primers used in this study

Andreev_Supplementary table 1

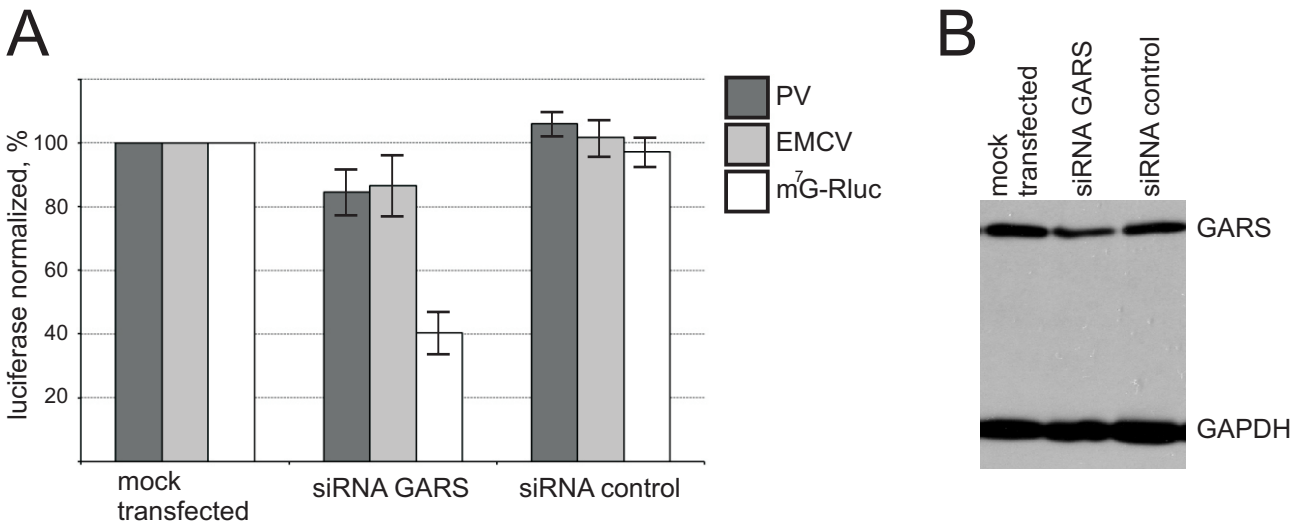
Andreev_Supplementary Fig1 AB



Andreev_Supplementary Fig2



Andreev_supplementary fig 3AB



Legends to supplemental figures.

Supplemental Table 1. Sequences of primers used in this study.

Supplemental Fig. 1. Proteins bound to domV wt and domV with mutated "Gly-anticodon" (domV mut) after incubation in RRL + HeLa. (A) Proteins eluted by micrococcal nuclease from the domV wt and domV mut RNA. The position of GARS is indicated by an arrow. Molecular mass markers are presented in the right lane. The weak band at the position coinciding with that for GARS in the lane PV mut is PABP rather than GARS (as determined by mass-spectrometry analysis). (B) Western blot for the presence of GARS in the protein fractions eluted from domV wt and domV mut.

Supplemental Fig. 2. Effects of ATP, its non-hydrolysable analog, AMPPNP, and deletions of individual domains of GARS on the formation of its binary complex with the PV IRES as revealed by primer extension inhibition. Positions of stops of reverse transcriptase (designated "toe") are marked with arrows. Control: no protein or nucleotides added

Supplemental Fig. 3. siRNA interference against GARS demonstrates inhibition of general cap-dependent translation. (A) transfection of repoter mRNAs in Hek293T cells 24h after transfection of either siRNA GARS or control siRNA, or mock transfection. Fluc and Rluc values for mock-transfected cells were set as 100%. (B) Western blot against GARS and GAPDH (control).