

**Table S2: qPCR primers, Related to STAR Methods sections on Protein capture, siRNA experiments for SRP19 and SRP54, and Interferon stimulation experiments .**

target	F primer	R primer
GAPDH	ATTCCACCCATGGCAAATTC	TGGGATTTCATTGATGACAAG
IFN-beta	TTCAGTGTTCAGAAGCTCCTGTGG	CTGCTTAATCTCCTCAGGGATGTCA
ISG54	CTTCCCAGTCTATCATCAACCTT	CCGTCGCTTCTAGCTATGTATCT
18S_1	CAT TCG AAC GTC TGC CCT AT	ACCCTGATTCCCCGTCAC
18S_2	ATT GGA GGG CAA GTC TGG T	CCAAGATCCAACACTACGAGCTTT
LBR	AGT ATA GCC TTC GTC CAA GAA GA	CAAAGGTTTCTCACTGCCAGTT
CALM3	GAC CAT TGA CTT CCC GGA GTT	GATGTAGCCATTCCCATCCTTG
SRP19	GCCGACCAGGACAGGTTTATT	TCTCTGTAGCTGTAGGATTTTCAAC
SRP54	TGGATTGCAAGGGAGTGGTAA	GGTCAAAGCCCCTGCTCT

**Table S3: Addgene ORFs, Related to STAR Methods sections on Generation of RNA binding maps, Cloning of expression constructs.**

Gene Symbol	Synthesized CDS Name	Addgene clone number	URL	RRID
ORF1AB (split into 16 protein)	NSP1	141255	<a href="http://n2t.net/addgene:141255">http://n2t.net/addgene:141255</a>	RRID:Addgene_141255
	NSP2	141256	<a href="http://n2t.net/addgene:141256">http://n2t.net/addgene:141256</a>	RRID:Addgene_141256
	PLPRO (NSP3)	141257	<a href="http://n2t.net/addgene:141257">http://n2t.net/addgene:141257</a>	RRID:Addgene_141257
	NSP4	141258	<a href="http://n2t.net/addgene:141258">http://n2t.net/addgene:141258</a>	RRID:Addgene_141258
	NSP5	141259	<a href="http://n2t.net/addgene:141259">http://n2t.net/addgene:141259</a>	RRID:Addgene_141259
	NSP6	141260	<a href="http://n2t.net/addgene:141260">http://n2t.net/addgene:141260</a>	RRID:Addgene_141260
	NSP7	141261	<a href="http://n2t.net/addgene:141261">http://n2t.net/addgene:141261</a>	RRID:Addgene_141261
	NSP8	141262	<a href="http://n2t.net/addgene:141262">http://n2t.net/addgene:141262</a>	RRID:Addgene_141262
	NSP9	141263	<a href="http://n2t.net/addgene:141263">http://n2t.net/addgene:141263</a>	RRID:Addgene_141263
	NSP10	141264	<a href="http://n2t.net/addgene:141264">http://n2t.net/addgene:141264</a>	RRID:Addgene_141264
	NSP11	151991	<a href="http://n2t.net/addgene:151991">http://n2t.net/addgene:151991</a>	RRID:Addgene_151991
	RNA-pol (NSP12)	141265	<a href="http://n2t.net/addgene:141265">http://n2t.net/addgene:141265</a>	RRID:Addgene_141265
	Heli (NSP13)	141266	<a href="http://n2t.net/addgene:141266">http://n2t.net/addgene:141266</a>	RRID:Addgene_141266
	NSP14	141267	<a href="http://n2t.net/addgene:141267">http://n2t.net/addgene:141267</a>	RRID:Addgene_141267
	NSP15	141268	<a href="http://n2t.net/addgene:141268">http://n2t.net/addgene:141268</a>	RRID:Addgene_141268
	NSP16	141269	<a href="http://n2t.net/addgene:141269">http://n2t.net/addgene:141269</a>	RRID:Addgene_141269
ORF3A	3A	141271	<a href="http://n2t.net/addgene:141271">http://n2t.net/addgene:141271</a>	RRID:Addgene_141271
ORF3B	3B	141272	<a href="http://n2t.net/addgene:141272">http://n2t.net/addgene:141272</a>	RRID:Addgene_141272

E	E	141273	<a href="http://n2t.net/addgene:141273">http://n2t.net/addgene:141273</a>	RRID:Addgene_141273
M	M	141274	<a href="http://n2t.net/addgene:141274">http://n2t.net/addgene:141274</a>	RRID:Addgene_141274
ORF6	6	141275	<a href="http://n2t.net/addgene:141275">http://n2t.net/addgene:141275</a>	RRID:Addgene_141275
ORF7A	7A	141276	<a href="http://n2t.net/addgene:141276">http://n2t.net/addgene:141276</a>	RRID:Addgene_141276
ORF7B	7B	141277	<a href="http://n2t.net/addgene:141277">http://n2t.net/addgene:141277</a>	RRID:Addgene_141277
ORF8	8	141278	<a href="http://n2t.net/addgene:141278">http://n2t.net/addgene:141278</a>	RRID:Addgene_141278
ORF9B	9B	141280	<a href="http://n2t.net/addgene:141280">http://n2t.net/addgene:141280</a>	RRID:Addgene_141280
N	N	149330	<a href="http://n2t.net/addgene:149330">http://n2t.net/addgene:149330</a>	RRID:Addgene_149330

**Table S4: Primers used in mRNA generation, Related to STAR Methods sections on *In vivo* translation assays and Leader NGFR measurements.**

mRNA	F primer	R primer	template
- Leader mCherry	TAATACGACTCACTATAGGCTAGCACC ATGGTGA	CTACTACTACTTGTA CAGCTCGT	Leader mCherry Gblock
- Leader GFP	TAATACGACTCACTATAGGCTAGCACC ATGGCCACATCGTGATGGT	CTTGTACAGCTCGTC CATGCCGA	Spytag-eGFP cDNA
+ Leader mCherry	TAATACGACTCACTATAGATTAAGGT TTATACCTTCCCAGG	CTACTACTACTTGTA CAGCTCGT	Leader mCherry Gblock
+ Leader GFP	TAATACGACTCACTATAGATTAAGGT TTATACCTTCCCAGGTAACAAACCAAC CAACTTTCGATCTCTTGTAGATCGCACC ATGGCCACATCGTGATG	CTTGTACAGCTCGTC CATGCCGA	Spytag-eGFP cDNA
+5nt-SL1 mCherry	TAATACGACTCACTATAGAATTATTA AGGTTTATACCTTCCCAGGTAACAAAC CAACCAACTTTCGATCTCTTGTAGATCG GCTAGCACCATGGTGA	CTACTACTACTTGTA CAGCTCGT	Leader mCherry Gblock
+SL1 mCherry	TAATACGACTCACTATAGATTAAGGT TTATACCTTCCCAGGTAACAAACCGGC TAGCACCATGGTGA	CTACTACTACTTGTA CAGCTCGT	Leader mCherry Gblock
+SL2-SL1 mCherry	TAATACGACTCACTATAGATTAAGAT CTCTTGTAGATCAACCAACTTTCGGTTT ATACCTTCCCAGGTAACAAACCGGCTA GCACCATGGTGA	CTACTACTACTTGTA CAGCTCGT	Leader mCherry Gblock
Nsp1	AAAAGGATCCATGGAGAGCCTGGTGCC	AAAACTCGAGTTAGC CACCGTTCAGTTCAC	Nsp1 mammalian expression vector
+ Leader NGFR	ATTAAAGGTTTATACCTTCCCAGGTAA CAAACCGGCTAGCACCATGGCCACAAC CATGGA	TTATCGATAAGCTTG GCTGCAG	pB-Halo-eGFP- IRES-NGFR mammalian expression vector

**Table S5: Templates used in mRNA generation, Related to STAR Methods sections on *In vivo* translation assays.**

<p>Leader mCherry Gblock</p>	<p>TCAGTCGCGATCGAACCCCTGGAATTCATTAAAGGTTTATACCTTCCCAGGT  AACAAACCAACCAACTTTCGATCTCTTGTAGATCTGTTCTCTAAACGAACG  GCTAGCACCATGGTGAGCAAGGGCGAGGAGGATAACATGGCCATCATCAA  GGAGTTCATGCGCTTCAAGGTGCACATGGAGGGCTCCGTGAACGGCCACG  AGTTCGAGATCGAGGGCGAGGGCGAGGGCCGCCCTACGAGGGCACCAG  ACCGCCAAGCTGAAGGTGACCAAGGGTGGCCCCCTGCCCTTCGCCTGGGA  CATCCTGTCCCCTCAGTTCATGTACGGCTCCAAGGCCTACGTGAAGCACCC  CGCCGACATCCCCGACTACTTGAAGCTGTCCCTCCCCGAGGGGCTTCAAGTG  GGAGCGCGTGATGAACTTCGAGGACGGCGGCGTGGTGACCGTGACCCAGG  ACTCCTCCCTGCAGGACGGCGAGTTCATCTACAAGGTGAAGCTGCGCGGC  ACCAACTTCCCCTCCGACGGCCCCGTAATGCAGAAGAAGACCATGGGCTG  GGAGGCCTCCTCCGAGCGGATGTACCCCGAGGACGGCGCCCTGAAGGGCG  AGATCAAGCAGAGGCTGAAGCTGAAGGACGGCGGCCACTACGACGCTGA  GGTCAAGACCACCTACAAGGCCAAGAAGCCCGTGCAGCTGCCCGGCGCCT  ACAACGTCAACATCAAGTTGGACATCACCTCCCACAACGAGGACTACACC  ATCGTGGAACAGTACGAACGCGCCGAGGGGCCCGCCACTCCACCGGCGGCAT  GGACGAGCTGTACAAGTAGTAGTAGGCGGCCGCATAAAAATTAAAGA</p>
<p>Spytag-eGFP cDNA</p>	<p>AGCGGATAACAATTTACACAGGAAACAGCTATGACCATGATTACGCCAA  GCTTATACGAAATTAATACGACTCACTATAGGGAGACCACAACGGTTTCCC  GAATTGTGAGCGGATAACAATAGAAATAATTTTGTTTAACTTTAAGAAGG  AGATATATCCATGGCCACATCGTGATGGTGGACGCCTACAAGCCTACTAA  GGGCAGCGGCTCTAGAATGGCCACAACCATGGTGAGCAAGGGCGAGGAG  CTGTTACCGGGGTGGTGCCCATCCTGGTTCGAGCTGGACGGCGACGTAAA  CGGCCACAAGTTCAGCGTGTCTGGCGAGGGCGAGGGCGATGCCACCTACG  GCAAGCTGACCCTGAAGTTCATCTGCACCACCGGCAAGCTGCCCGTGCCCT  GGCCCACCCTCGTGACCACCCTGACCTACGGCGTGCAGTGCTTCAGCCGCT  ACCCCGACCACATGAAGCAGCACGACTTCTTCAAGTCCGCCATGCCCGAA  GGCTACGTCCAGGAGCGCACCATCTTCTTCAAGGACGACGGCAACTACAA  GACCCGCGCCGAGGTGAAGTTCGAGGGCGACACCCTGGTGAACCGCATCG  AGCTGAAGGGCATCGACTTCAAGGAGGACGGCAACATCCTGGGGCACAAG  CTGGAGTACAACACTAACAGCCACAACGTCTATATCATGGCCGACAAGCA  GAAGAACGGCATCAAGGCGAACTTCAAGATCCGCCACAACATCGAGGACG  GCAGCGTGCAGCTCGCCGACCACTACCAGCAGAACACCCCATCGGCGAC  GGCCCCGTGCTGCTGCCCGACAACCACTACCTGAGCACCCAGTCCGCCCTG  AGCAAAGACCCCAACGAGAAGCGCGATCACATGGTCTGCTGGAGTTCGT  GACCGCCGCGGGATCACTCTCGGCATGGACGAGCTGTACAAGGGATTCG  GATCCGAACAAAACACTCATCTCAGAAGAGGATCTGGCGGCCGCTGGATCT  GGTGGCCAGAAGCAAGCTGAAGAGGCGGCAGCGAAAGCGGCGGCAGATG  CTAAAGCGAAGGCCGAAGCAGATGCTAAAGCTGCGGAAGAAGCAGCGAA  GAAAGCGGCTGCAGACGCAAGAAAAAAGCAGAAGCAGAAGCCGCCAAA  GCCGCAGCCGAAGCGCAGAAAAAAGCCGAGGCAGCCGCTGCGGCACTGA  AGAAGAAAGCGGAAGCGGCAGAAGCAGCTGCAGCTGAAGCAAGAAAGAA  AGCGGCAACTGAAACCGCACACCTTACTGGTGTGCGGGGCATCCCGACAT  GGACGTTGAATTATGAATCACTGGCCGTCGTTTTACA</p>