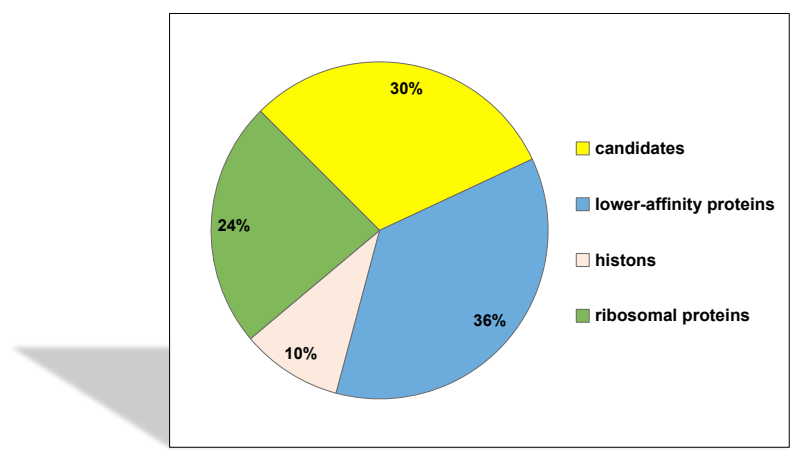


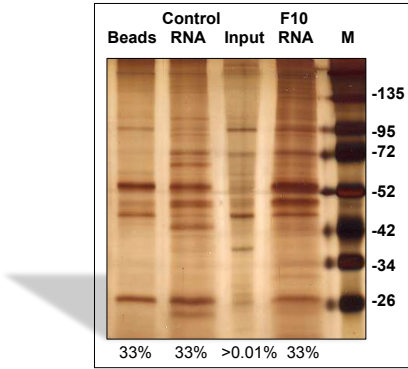
SM5-A Table. The top candidate proteins' lists. The MS data from the RNA-centric affinity chromatography experiment is included in the table. The table shows total numbers of MS matches/hits for each candidate protein as well as number of hits after correction with the control reaction (red font).

No	ID	Gene name	Protein name	MS spectra numbers		
				BEADS	F10RNA	F10RNA minus beads
1	P19338	NCL	Nucleolin	6	73	67
2	P09429	HMGB1 HMG1	High mobility group protein B1	3	60	57
3	P61978	HNRNPK HNRPK	Heterogeneous nuclear ribonucleoprotein K	12	60	48
4	Q96AE4	FUBP1	Far upstream element-binding protein 1	5	53	48
5	Q92945	KHSRP FUBP2	Far upstream element-binding protein 2	1	46	45
6	P62280	RPS11	40S ribosomal protein S11	2	25	23
7	P62701	RPS4X CCG2, RPS4, SCAR	40S ribosomal protein S4, X isoform	3	23	20
8	P26373	RPL13 BBC1, OK/SW-cl.46	60S ribosomal protein L13	1	19	18
9	P62269	RPS18 D6S218E	40S ribosomal protein S18	4	21	17
10	P09651	HNRNPA1 HNRPA1	Heterogeneous nuclear ribonucleoprotein A1	2	18	16
11	P62753	RPS6 OK/SW-cl.2	40S ribosomal protein S6	2	18	16
12	P61247	RPS3A FTE1, MFTL	40S ribosomal protein S3a	1	17	16
13	P06748	NPM1 NPM	Nucleophosmin	5	17	12
14	Q13283	G3BP1 G3BP	Ras GTPase-activating protein-binding protein 1	2	14	12
15	Q13435	SF3B2 SAP145	Splicing factor 3B subunit 2	1	13	12
16	P39019	RPS19	40S ribosomal protein S19	8	19	11
17	P26583	HMGB2 HMG2	High mobility group protein B2	4	15	11
18	P68371	TUBB4B TUBB2C	Tubulin beta-4B chain	54	64	10
19	P23396	RPS3 OK/SW-cl.26	40S ribosomal protein S3	6	16	10
20	P52597	HNRNPF HNRPF	Heterogeneous nuclear ribonucleoprotein F	2	12	10
21	P47914	RPL29	60S ribosomal protein L29	1	11	10
22	Q13765	NACA HSD48	Nascent polypeptide-associated complex subunit	1	10	9
23	E9PAV3	NACA	Nascent polypeptide-associated complex subunit	1	10	9
24	P11940	PABP1 PAB1, PABP1, PABPC2	Polyadenylate-binding protein 1	3	10	7
25	RS_P29353	SHC1 SHC, SHCA	SHC-transforming protein 1	5	12	7
26	P31943	HNRNPH1 HNRPH, HNRPH1	Heterogeneous nuclear ribonucleoprotein H1	2	8	6
27	P62241	RPS8 OK/SW-cl.83	40S ribosomal protein S8	1	7	6
28	P62851	RPS25	40S ribosomal protein S25	1	7	6
29	P07814	EPRS1 EPRS, GLNS, PARS, QARS,	Bifunctional glutamate/proline--tRNA ligase	2	8	6
30	P07437	TUBB TUBB5, OK/SW-cl.56	Tubulin beta chain	61	66	5
31	Q15366	PCBP2	Poly(rC)-binding protein 2	12	17	5
32	Q8NC51	SERBP1 PAIRBP1, CGI-55	Plasminogen activator inhibitor 1 RNA-binding protein	5	10	5
33	Q13263	TRIM28 KAP1, RNF96, TIF1B	Transcription intermediary factor 1-beta	6	11	5
34	P05198	EIF2S1 EIF2A	Eukaryotic translation initiation factor 2 subunit 1	2	6	4
35	P62244	RPS15A OK/SW-cl.82	40S ribosomal protein S15a	2	6	4
36	P60866	RPS20	40S ribosomal protein S20	1	5	4
37	Q15643	TRIP11 CEV14	Thyroid receptor-interacting protein 11	4	7	3
38	Q16777	H2AC20 H2AFQ, HIST2H2AC	Histone H2A type 2-C	1	4	3
39	Q9BTM1	H2AJ H2AFJ	Histone H2AJ	1	4	3
40	Q6F113	H2AC18, H2AC19	Histone H2A type 2-A	1	4	3
41	P0C0S8	H2AC11, H2AC13, H2AC15,	Histone H2A type 1	1	4	3
42	Q99878	H2AC14 H2AFE, HIST1H2AJ	Histone H2A type 1-J	1	4	3
43	Q96KK5	H2AC12 HIST1H2AH, HIST1H2AI	Histone H2A type 1-H	1	4	3
44	P20671	H2AC7 H2AFG, HIST1H2AD	Histone H2A type 1-D	1	4	3
45	P68104	EEF1A1 EEF1A, EF1A, LENG7	Elongation factor 1-alpha 1	11	13	2
46	Q5VTE0	EEF1A1P5 EEF1AL3	Putative elongation factor 1-alpha-like 3	11	13	2
47	P46379	BAG6 BAT3, G3	Large proline-rich protein BAG6	10	12	2
48	P67809	YBX1 NSEP1, YB1	Nuclease-sensitive element-binding protein 1	7	9	2
49	P62829	RPL23	60S ribosomal protein L23	2	4	2
50	P60903	S100A10 ANX2LG, CAL1L, CLP11	Protein S100-A10	1	3	2
51	P62266	RPS23	40S ribosomal protein S23	1	3	2
52	O75822	EIF3J EIF3S1, PRO0391	Eukaryotic translation initiation factor 3 subunit J	1	3	2
53	P42166	TMPO LAP2	Lamina-associated polypeptide 2, isoform alpha	1	3	2
54	Q9BQE3	TUBA1C TUBA6	Tubulin alpha-1C chain	37	38	1
55	Q71U36	TUBA1A TUBA3	Tubulin alpha-1A chain	37	38	1
56	P68363	TUBA1B	Tubulin alpha-1B chain	37	38	1
57	P52272	HNRNPM HNRPM, NAGR1	Heterogeneous nuclear ribonucleoprotein M	32	33	1
58	Q9H853	TUBA4B TUBA4	Putative tubulin-like protein alpha-4B	5	6	1
59	Q969Q0	RPL36AL	60S ribosomal protein L36a-like	7	8	1
60	Q14444	CAPRIN1 GPIAP1, GPIP137,	Caprin-1	4	5	1
61	O75340	PDCD6 ALG2	Programmed cell death protein 6	5	6	1
62	P49588	AARS1 AARS	Alanine-tRNA ligase, cytoplasmic	4	5	1
63	P50991	CCT4 CCTD, SRB	T-complex protein 1 subunit delta	4	5	1
64	P52943	CRIP2 CRP2	Cysteine-rich protein 2	1	2	1
65	P08590	MYL3	Myosin light chain 3	1	2	1
66	P05976	MYL1	Myosin light chain 1/3, skeletal muscle isoform	1	2	1
67	P48643	CCT5 CTCE, KIAA0098	T-complex protein 1 subunit epsilon	1	2	1
68	P51572	BCAP31 BAP31, DXS1357E	B-cell receptor-associated protein 31	2	3	1
69	Q9Y224	RTRAF C14orf166, CGI-99	RNA transcription, translation and transport factor	1	2	1
70	Q96DB5	RTDN1 FAM82B, CGI-90	Regulator of microtubule dynamics protein 1	1	2	1
71	P25398	RPS12	40S ribosomal protein S12	1	2	1
72	P49368	CCT3 CCTG, TRIC5	T-complex protein 1 subunit gamma	1	2	1



	number of proteins	%
candidate	22	30,55556
lower-affinity proteins	26	36,11111
histons	7	9,72222
ribosomal proteins	17	23,61111
total	72	100

SM5-B. Distribution of proteins identified by F10-CVB3 RNA affinity chromatography and MS analysis for untreated MCF-7 cells.



SM5-C. F10-CVB3 RNA affinity chromatography for untreated MCF-7 cells. Total cytoplasmic fractions and the protein eluates were incubated for 5 min at 95°C and then loaded on a 10% SDS-PAGE gel. After electrophoresis the gel was silver stained according to manufacturer's protocol (Pierce Silver Stain Kit).

Figure SM5. RNA affinity chromatography and MS analysis.