Dataset S1: Enrichment of nuclear proteins by anti-HBc precipitation

Gene names	Cross-linking Fold-enrichment	Cross-linking / no cross-linking
ABHD12	5.6566	5.0473
ACAA2	7.8989	12.975
ACAD10	4.166	7.6103
ACAD9	12.093	4.1860
ACADVL	5.9003	10.601
ACAT1	14.113	10.444
ACIN1	3.4386	4.2490
ACO2	7.8032	18.118
ACOT1;ACOT2	6.2785	15.491
ACP1	7.8293	6.2132
ACSL3	6.6419	6.3999
ACSM2B;ACSM2A	5.1981	13.567
ACTC1;ACTA1	5.9782	7.1620
ACTG1;ACTB	5.5922	7.1326
ACTR3;ACTR3B	5.0191	8.1953
ADH5	3.1552	4.8671
AGMAT	4.4064	5.0933
AHCY	3.9484	7.2470
AK2	8.2466	14.570
AK3	3.2178	7.4665
AK4	5.9073	8.6736
AKR1C3;AKR1C1;AKR1C4	3.9223	9.8288
ALDH18A1	7.6726	9.9750
ALDH1L1	30.015	28.849
ALDH2	3.4746	6.5575
ALDH5A1	4.0714	6.7823
ALDH6A1	9.2066	9.8122
ALDOA	3.4647	5.0934
ALDOC	3.4726	4.9857
ANXA4	7.1205	17.181
AP2A1	7.6963	16.666
APEX1	8.8808	14.274
APLP2	4.9785	5.9048
ARMCX3	7.5148	8.9491

ASPH	8.2892	11.275
ATAD3A	7.5644	8.5836
ATIC	6.7674	14.984
ATP5B	10.93	4.6773
ATP5SL	17.884	16.133
ATP6V0D1	6.2719	6.6647
AUH	19.665	9.6524
BABAM1	6.4504	5.8438
BCAS2	5.2213	8.3447
BCKDK	8.0325	5.9681
BCLAF1	12.99	20.874
BHMT;BHMT2	5.956	7.6620
BUB3	10.955	12.139
C14orf166	6.2376	5.2847
C1QBP	27.118	21.760
C4B;C4A	13.764	13.666
CALCOCO2	8.7198	9.3796
CALM1;CALM2	7.3664	13.579
CALU	4.2558	4.0274
CAMK2D	4.0576	5.9696
CANX	4.8595	7.1404
CBX3	7.0701	6.6970
CCAR2	4.2872	5.9416
CCT2	5.0841	8.3905
CCT5	3.8453	4.1000
CCT6A	3.7118	5.3986
CDKN2AIP	7.7753	4.8950
CFL1	3.6693	5.3910
CHCHD1	25.046	20.519
CIRBP	7.1158	12.072
CKAP4	4.5489	4.3933
CLTC	4.4108	8.0408
CNBP	4.2261	4.6985
CNP	9.1921	8.4712
CNPY2	4.5315	9.9427
COA1	9.5769	5.9919
COA5	3.582	4.6927
COASY	7.1412	17.798
COLGALT1	7.1436	19.162
COPB2	4.3649	4.3225

COX20	44.738	19.326
COX5B	6.7483	4.7283
COX6C	5.9542	12.005
CPNE1	4.0305	8.2619
CPSF1	11.239	11.449
CPT1A	11.455	5.9683
CRAT	9.2246	21.508
CS	4.2743	8.9360
CSNK2A1;CSNK2A3	5.406	9.1625
CSNK2B-LY6G5B-1181;CSNK2B;CSNK2B-LY6G5B--991	4.2764	8.4647
CSTF1	7.8726	6.1241
CTNND1	6.5279	6.6081
CYB5R3	4.3975	6.3068
CYCS	6.4601	4.6462
CYP20A1	15.998	7.2787
CYP27A1	12.57	19.138
CYP2W1	7.418	7.2647
CYP4F12;CYP4F3	4.6381	4.6979
DAP3	26.302	20.546
DARS	3.4048	5.4164
DAZAP1	11.049	6.4003
DDX1	6.3754	7.9379
DDX17	7.5408	9.6989
DDX23	7.5436	4.6345
DDX27	15.788	25.865
DDX39B	9.7088	17.907
DDX5	8.6273	11.573
DDX6	8.4314	5.2297
DENR	8.4758	11.115
DHRS2	10.42	11.313
DHRS7	7.1265	7.7778
DHX15	7.8913	10.814
DLAT	3.9027	4.9865
DLD	5.6024	4.7182
DLG1	5.64	5.3729
DLST	5.4534	8.7325
DNAJA3	17.857	17.006
DPM1	13.272	16.591
DYRK2	23.808	19.198
ECH1	4.0128	4.9964

ECI1;DCI	3.6635	6.2195
ECSIT	13.192	5.8122
EEF1D	3.3455	5.2021
EEF1D	5.4006	8.4028
EEF1G	4.0457	5.3113
EHD1	4.4233	6.1278
EHHADH	11.196	4.2523
EIF2S1	6.0262	4.8512
EIF2S2	7.7404	7.5678
EIF2S3	6.6745	5.2361
EIF3I	3.2779	6.0742
EIF4A1;EIF4A2	4.0481	10.232
EIF4A3	7.4952	11.071
EIF4E	10.442	8.7497
EIF4H	5.9628	15.457
EIF5	3.3668	6.7523
EIF6	5.4184	7.0044
ELAVL1	6.0224	5.2528
ENO1	6.2681	8.8660
EPHX1	5.5407	5.8474
ERGIC1	9.3982	5.5436
ERH	10.892	19.151
ERP29	3.525	5.2313
ERP44	7.8259	14.152
ESD	3.9983	7.7272
ETFA	5.0687	9.1900
ETFB	3.7093	4.5556
ETFDH	12.099	15.181
EWSR1	6.8007	12.646
FAF2	10.252	5.4973
FAM213A	4.2905	6.2363
FAM98B	5.0136	5.2866
FARP1	10.165	13.191
FARSA	10.274	5.1010
FASN	4.0315	9.6685
FGB	3.9782	4.0934
FH	5.7977	13.255
FNDC3A	5.2475	4.0709
FOXRED1	22.75	7.7541
FTSJ3	12.927	23.490

FUBP1	7.1495	4.4892
FUBP3	5.7016	4.1739
FUS	3.9472	7.9611
FXR1	11.292	20.362
G3BP1	19.614	23.528
G3BP2	10.79	19.385
GADD45GIP1	35.131	26.840
GALNT2	4.9321	6.4728
GANAB	3.0314	7.1984
GAPDH	10.375	11.158
GDI2	5.5452	10.301
GLG1	7.963	10.763
GLS	5.5625	9.3753
GLUD1;GLUD2	8.6986	16.379
GNAI3	7.3217	4.8869
GNB2L1	9.8019	7.3307
GPR179	4.0248	5.9976
GRHPR	4.8325	6.8920
GRPEL1	3.0564	6.9682
GSTK1	3.2589	4.3810
HADHA	10.175	8.2912
HADHB	11.779	15.407
hCG_1984214;MRPS17	36.396	66.393
HDLBP	15.65	30.416
HIBADH	4.5489	5.6809
HIST1H1C;HIST1H1E;HIST1H1D	16.8	17.889
HIST1H2BI;HIST1H2BN;HIST1H2BL;HIST1H2BM;HIST1H2BH;HIST2H2BF;HIST1H2BC;HIST1H2BD;H2BFS;HIST1H2BK;HIST1H2BA	9.8252	14.734
HK2	8	4.8256
HKDC1	6.0231	4.9880
HMGA1	7.1917	13.340
HMGA2	10.475	19.862
HNF4A	12.812	6.2239
HNRNPA0	5.0932	5.8819
HNRNPA1;HNRNPA1L2	5.8287	8.5459
HNRNPA2B1	6.0145	9.4077
HNRNPA3	6.239	9.2669
HNRNPAB	7.7167	7.0795
HNRNPC;HNRNPCL4;HNRNPCL1;HNRNPCL3;HNRNPCL2	5.5526	6.2346 7325

HNRNPD	7.0031	5.1218
HNRNPDL	5.1058	7.2245
HNRNPF	7.9058	5.9188
HNRNPH1	7.3584	5.4864
HNRNPH2	7.4042	7.1614
HNRNPH3	3.4706	6.5536
HNRNPK	9.1354	12.722
HNRNPL	5.1087	5.8670
HNRNPM	4.2871	9.8188
HNRNPR	8.2508	9.9738
HNRNPU	12.485	14.453
HNRNPUL2;HNRNPUL2-BSCL2	7.44	8.2512
HP;HPR	25.219	5.9616
HSD17B10	7.5521	12.334
HSD17B4	6.6805	6.7500
HSP90AA1	4.0809	10.016
HSPA9	11.564	12.110
HSPB1	3.6846	6.7402
HSPD1	3.0593	4.8293
HSPE1	4.2561	6.0910
HSPH1	75.911	179.67
HTRA2	8.6805	7.9930
IARS2	9.481	14.300
ICT1	31.002	28.581
IDH1	4.1271	7.3310
IDH3A	4.6764	6.7523
IGF2BP1	10.102	17.119
IGF2BP2	9.714	15.253
IGF2BP3	6.8935	12.145
ILF2	6.6558	10.037
ILF3	11.306	12.189
ILVBL	10.815	4.6135
INSR	3.9848	5.8090
IQGAP2	3.7526	5.7728
ISY1	9.1333	10.451
JUP	5.2926	4.5859
KHSRP	6.6947	5.4825
KPNB1	5.441	5.1407
KTN1	6.112	6.8299
LAP3	5.0025	9.4649

LARP4	10.916	12.763
LDHA	7.3066	12.699
LEPRE1	8.6503	14.024
LETM1	7.3245	4.6214
LGALS8	7.264	9.5108
LIN7C	5.5845	4.6217
LMAN1	6.5711	10.321
LMAN2	7.8478	12.552
LONP1	5.2569	11.402
LRPPRC	22.077	12.968
LRRC59	7.6347	9.5461
LSM2	4.913	5.2031
LSM3	7.0494	7.8972
LUC7L2;C7orf55-LUC7L2	34.945	37.194
LYAR	10.801	17.785
MAGT1	8.7962	8.7524
MAOB	9.2366	5.8641
MAPRE2	16.679	19.320
MATR3	5.7609	8.4552
MCUR1	5.609	4.8282
MDH2	8.1507	4.7360
METTL17	17.784	16.369
MFN2	13.7	6.8520
MIF	12.394	14.476
MLEC	4.5844	6.2217
MOGS	7.3026	9.8188
MPG	7.9993	6.2275
MPI	10.251	4.1210
MRPL1	34.045	38.390
MRPL10	30.244	31.219
MRPL11	25.685	36.804
MRPL12;SLC25A10	27.894	19.485
MRPL13	34.564	27.691
MRPL14	27.52	21.569
MRPL15	41.133	43.203
MRPL18	36.681	38.829
MRPL19	21.19	16.544
MRPL22	50.454	86.201
MRPL24	34.216	28.784
MRPL28	26.9	22.094

MRPL3	29.667	37.932
MRPL32	25.279	19.832
MRPL37	20.612	15.087
MRPL38	31.647	33.895
MRPL39	36.959	26.908
MRPL41	32.699	35.055
MRPL42	30.189	23.969
MRPL44	31.81	33.522
MRPL45	31.567	30.785
MRPL46	31.352	30.453
MRPL49	29.391	24.344
MRPL50	29.822	21.439
MRPL53	33.824	18.837
MRPL54	35.04	38.587
MRPL55	34.723	32.769
MRPL57	47.959	85.723
MRPS10	28.686	30.104
MRPS16	20.201	26.475
MRPS18B	35.846	39.168
MRPS2	26.069	31.215
MRPS21	52.472	92.022
MRPS22	31.674	39.978
MRPS23	32.34	38.224
MRPS25	27.034	33.365
MRPS26	35.928	50.635
MRPS27	24.657	31.101
MRPS30	25.739	17.741
MRPS35	28.242	30.678
MRPS6	21.341	26.121
MRPS7	16.487	20.171
MRPS9	32.741	33.842
MT-CO2	8.3142	6.6502
MTERF4	13.516	20.009
MTIF2	20.72	16.801
MTPAP	35.402	36.615
MYH10	4.163	11.816
MYO1B	10.924	31.221
MYO1D	4.9553	13.164
NACA	7.4978	10.637
NANS	4.8731	12.629

NAP1L4	7.088	13.355
NAT10	11.602	25.351
NCL	16.678	21.710
NCOA3	27.44	6.0125
NDUFAB1	8.3024	4.0519
NDUFAF1	9.4424	4.4430
NDUFB3	4.3025	4.0987
NDUFB4	7.3849	7.3423
NDUFB6	6.1515	4.5062
NDUFB7	5.9948	4.4327
NDUFB9	5.9353	4.3857
NFS1	6.2772	4.8375
NHP2	6.5958	8.7254
NHP2L1	4.9895	7.6152
NIPSNAP1	5.2029	5.2723
NMNAT1	7.3849	13.990
NNT	6.3558	4.8351
NO66	14.875	28.887
NOP56	7.3915	14.435
NPM1	9.5687	14.082
NSUN4	15.04	10.765
NUDT21	3.2921	5.0258
NUP37	13.752	17.133
OGDH	6.2153	9.4699
OXA1L	11.363	4.6581
P4HA1	5.5279	11.271
PA2G4	6.3167	13.578
PABPC1;PABPC3	11.641	15.895
PABPC4	8.0672	12.865
PABPN1	9.5472	11.302
PARP1	5.9776	14.526
PC	7.7919	14.157
PCBP1	19.694	8.2263
PCBP2;PCBP3	13.671	8.1906
PCK2	8.1158	16.226
PCK2	8.8606	18.603
PCYT1A;PCYT1B	4.0068	8.7408
PDF	9.7748	7.7369
PDHA1	12.001	10.376
PDHB	10.47	10.052

PDHX	4.0385	4.3648
PDIA3	3.1958	8.0836
PDIA3	3.5797	8.4492
PDLIM2	3.3095	4.8783
PGAM5	8.888	9.7276
PGK1	7.0357	15.858
PGRMC1	6.9487	7.3254
PGRMC2	6.081	5.1841
PHF5A	10.606	6.1713
PIN1	3.1247	4.7883
PIPOX	3.149	5.6976
PKM	6.3094	9.6660
PKP2	3.7733	6.0348
PKP3	5.2426	7.5855
PLEC	6.4736	11.436
PLOK	4.0294	7.4751
PLRG1	5.863	6.5225
POLDIP2	8.5434	6.0402
POLR1A	12.441	16.640
POR	5.9435	8.0015
PPIA	5.9875	9.1631
PPIB	3.4619	7.4882
PPP1CA;PPP1CC;PPP1CB	6.7604	9.8836
PPP1R8	4.6534	5.5798
PRDX3	6.3759	8.1032
PRKAR1A	4.0694	8.2851
PRKAR2A	4.4033	6.2143
PRKDC	26.287	24.017
PROS1	3.8673	4.2996
PRPF19	5.2765	6.0861
PRPF40A	5.6107	7.2517
PSMA3	3.189	4.2746
PTBP1	6.4362	8.8571
PTCD3	30.752	36.097
PTPN1	6.0949	5.7651
PTRF	5.9752	5.3767
PTRH2	5.7043	4.1103
PURA	14.288	18.227
PYCR1	5.8306	11.328
RAB10	10.919	12.314

RAB11A;RAB11B	8.5809	13.460
RAB1A;RAB1B	7.6969	11.457
RAB22A	10.775	10.071
RAB5C	6.4399	7.0595
RAB6A;RAB6B;RAB39A	4.9046	6.6563
RAB7A	6.8133	8.9095
RABL3	6.5358	5.2657
RAC1;RAC2;RAC3	8.2082	7.3359
RAD50	107.38	60.506
RALA	4.4734	5.4390
RALGAPA2	12.259	5.7681
RALY	5.4513	6.5794
RANGAP1	7.0584	5.4907
RAP1A	8.1238	8.6928
RBBP4	5.6994	7.0260
RBM25	5.733	5.9426
RBM39	11.697	11.710
RBM47	10.106	9.6019
RBMX;RBMXL1	4.7274	7.2378
RCN2	4.8404	4.8887
RDX;MSN	6.2587	7.0993
RHOA	8.7813	7.9771
RPL10	13.711	23.769
RPL10A	20.408	35.523
RPL11	8.5617	6.0536
RPL12	6.1907	6.2088
RPL13	6.1798	14.103
RPL14	7.0442	13.818
RPL15	6.0564	11.653
RPL17;RPL17-C18orf32	14.285	26.337
RPL18A	7.5218	13.722
RPL21	10.405	18.748
RPL22	10.45	17.629
RPL23	10.267	14.937
RPL23A	18.187	25.542
RPL26;RPL26L1	7.8764	13.779
RPL27	15.892	24.317
RPL27A	5.7073	10.434
RPL28	11.207	24.487
RPL29	19.734	27.052

RPL3	11.04	24.589
RPL30	9.6276	16.876
RPL31	18.553	26.399
RPL32	5.5349	9.8192
RPL34	9.2173	16.847
RPL38	4.345	4.3371
RPL5	6.6924	13.096
RPL6	12.546	20.813
RPL7	11.516	21.260
RPL7A	9.0496	19.941
RPL8	13.124	20.859
RPL9	8.5212	11.016
RPLP0;RPLP0P6	7.262	10.313
RPLP2	7.9768	8.8453
RPN2	7.8348	6.0138
RPS10;RPS10P5	7.6124	9.7187
RPS11	13.856	22.409
RPS12	17.323	5.2231
RPS14	18.635	16.106
RPS16;ZNF90	11.778	22.557
RPS17	5.2164	6.2889
RPS18	8.0833	12.851
RPS19	5.0947	5.7210
RPS2	12.809	18.607
RPS20	13.98	5.5390
RPS25	17.059	23.087
RPS26;RPS26P11	10.025	20.426
RPS27	11.169	9.7020
RPS27A;UBB;UBC;UBA52	4.0594	6.5116
RPS27L	8.3125	8.5121
RPS3A	16.503	27.132
RPS4X	13.168	18.084
RPS5	9.2084	7.6538
RPS6	15.563	31.098
RPS8	12.848	26.266
RPSA	5.1995	6.0874
RRBP1	9.7828	13.024
RSAD1	14.26	5.5884
RSL1D1	15.181	24.384
RTCB	7.1733	7.7326

RUVBL2	13.486	6.4240
SAFB	5.1493	7.4291
SART1	5.2033	7.3896
SCD	9.7241	4.5743
SCP2	3.0663	6.7550
SDC4	5.7953	4.5496
SEC13	5.5185	9.3957
SEC22B	6.2346	7.6198
SERBP1	5.1523	8.0110
SET	56.699	47.506
SETDB1	24.029	29.617
SF3B1	6.0253	7.8887
SFPQ	4.571	6.8673
SFXN4	15.274	4.0966
SLC25A19	13.095	4.6507
SLC25A20	23.66	5.8622
SLC25A22	16.38	4.2698
SLC25A24	12.858	6.0820
SLC25A4	20.623	4.7337
SLC25A5	19.094	8.2876
SLC27A2	6.3827	6.3138
SLFN5	20.113	22.224
SLIRP	16.823	8.6828
SND1	11.035	23.458
SNRK	41.9	192.12
SNRNP200	7.1945	4.6100
SNRNP40	8.0474	5.0485
SNRNP70	4.3954	4.8195
SNRPA1	3.0885	4.2214
SNRPD2	3.7984	4.7767
SNRPD3	5.6649	7.8215
SNRPF	4.5035	5.2789
SNRPG;SNRPGP15	5.5008	7.1266
SNTB1	13.005	10.948
SON	3.9034	4.3864
SORL1	12.834	9.2630
SRC	6.4712	4.3410
SRP14	8.4334	14.314
SRP68	5.8732	6.2864
SRPRB	11.848	4.7214

SRRM2	7.6902	9.1731
SRRT	5.2493	7.4357
SRSF1	4.5663	4.9814
SRSF10;SRSF12	12.23	16.259
SRSF2;SRSF8	9.2968	8.8633
SRSF3	12.228	11.769
SRSF6;SRSF4	10.557	14.713
SRSF7	6.1741	8.7803
SRSF9	6.9256	11.850
SSBP1	7.6189	8.2948
SSRP1	6.0428	12.248
STARD9	22.8	19.726
SUB1	3.8801	6.3714
SYNCRIP	8.731	13.447
TAF15	4.1629	7.8521
TARDBD	7.8166	6.4344
TCEB1	10.055	5.9609
TCEB3	5.956	10.168
TF	18.025	31.186
TFAM	9.0559	11.580
TFRC	9.8691	6.4787
THRAP3	10.457	17.966 4278
TIMM10B	8.7311	4.2934
TIMM23B;TIMM23	15.494	4.2676
TIMM50	5.4961	4.7039
TJP1	4.4303	11.953
TOMM20	5.6359	4.3587
TOR1AIP1	6.9151	4.5300
TRA2A	6.1621	8.3445
TRA2B	7.3613	9.8474
TRAP1	6.723	17.757
TRIM25	13.507	17.654
TRIM28	7.5069	7.7036
TRIO	12.051	13.299
TRMT10C	13.976	26.120
TRMT61B	10.982	4.0140
TUBG1;TUBG2	10.059	9.0785
TUFM	5.8246	4.6377
TXNL1	5.8522	11.018

U2AF1	5.3372	5.7191
U2AF2	4.7899	5.3637
UCHL3	3.0983	6.0584
UGT1A3;UGT1A5	6.2226	4.1315
UGT2B7;UGT2B4	10.141	4.4806
UPF1	9.9602	13.037
UQCRB	7.9211	4.3044
UQCRC1	11.844	8.7909
UQCRC2	16.242	7.1415
UQCRFS1;UQCRFS1P1	22.238	6.3900
USO1	21.529	24.436
USP7	4.4757	5.8405
VIL1	7.3211	15.704
VWA8	17.068	10.396
WARS2	9.7112	17.198
WBSCR16	22.491	12.374
WDR1	12.576	29.501
WDR12	5.81	10.025
WDR33	8.5641	9.3447
WDR61	5.669	6.8960
WTAP	4.5109	5.8167
XRCC5	7.1676	10.868
XRCC6	6.7857	11.306
YBX1;YBX3;YBX2	25.566	26.516
YME1L1	9.1378	5.2013
YTHDF3;YTHDF2;YTHDF1	7.3944	10.645
YWHAB	3.8406	7.0294
YWHAG	3.7605	5.3714
YWHAZ	3.0477	4.9964
ZC3H18	13.459	16.922
ZC3HAV1	8.7916	11.026
ZFR	11.472	8.6626
ZNF207	3.7591	4.3503
ZNF830	7.6724	5.7509