

Table S1

Identified spliceosomal proteins. The list comprises spliceosomal proteins and their presence in the complexes A [Behzadnia 2007], B [Deckert 2006], BΔU1, B*, C and 35S U5 [Makarova 2004] is indicated by a cross (x). Small grey crosses (✗) represent proteins, only found once in four preparations of the spliceosomal B complex [Deckert 2006]. Comparison with proteins, precipitated with the GYF domain or U5-15K allows an estimation of the possible architecture of retained subcomplexes. Proteins, found by pulldowns with: WT GYF domain, in the presence or absence of PD1 peptide, with WT versus mutant GYF domain or with U5-15K in the presence or absence of PD1 peptide are indicated by circles. Filled circle (●) represent ¹³C-Arg/Lys labeled proteins, dotted circles (◎) stand for proteins with a mixed isotopic pattern and open circles (○) indicate unlabeled (¹²C-Arg/Lys) proteins, which co-precipitate independent of the PRS recognition site. The labeled SmB peptides found in the GYF +/- PD1 experiment were below our selection criteria and for the GYF mutant, no peptides were identified. Additional evidence for selective binding from other experiments (Fig. 4c) lead to the classification of SmB protein as labeled and is represented as filled circle in brackets. The number of in vitro binding sites for the GYF domain [Kofler 2004] is shown in the column 'CD2BP2 GYF'. Columns 'CA150 WW' to 'FBP21 WW2' indicated interactions with spliceosomal WW domains [Ingelham 2005]. SwissProt protein names are given. For each protein identified in our experiments, the accession number, the number of unique peptides and the sequence coverage (in %) are given in Supplementary Tables S6 to S8, corresponding to the three pulldown experiments GYF +/- PD1, GYF/GYF-mutant and U5-15K +/- PD1.

90K	PRPF3_HUMAN	x	x	x			●	●		x
61K	PRP31_HUMAN		x	x			●	●		x
60K	PRP4_HUMAN		x	x	x		●	●		x
20K	PPIH_HUMAN		x	x			●			
15.5K	NH2L1_HUMAN		x	x						
tri-snRNP										
110K	SNUT1_HUMAN		x	x	x	x	●	●	○	x
65K	SNUT2_HUMAN		x				●	●	○	
SNRNP27	SNR27_HUMAN		x							
hSnu23	ZMAT2_HUMAN		x	x	x					
TFIP11	TFP11_HUMAN		x		x	x				
hPRP38	PR38A_HUMAN		x							
hPRP19/CDC5L complex										
CCAP1	HSP7C_HUMAN	x	x			x	●	○	○	
CCAP2	Q9UI29_HUMAN	x	x		x	x	x			
CDC5L	CDC5L_HUMAN	x	x	x	x	x	x			
hPRP19	PRP19_HUMAN	x	x	x	x	x	x		○	
Catenin, β-like 1	CTBL1_HUMAN	x	x							
PRL1	PLRG1_HUMAN		x		x	x	x			
BCAS2	SPF27_HUMAN	x	x		x		x			
Npw38BP	WBP11_HUMAN	x	x	x			●	●	○	4
Npw38	PQBP1_HUMAN	x	x	x			●	●		x
FBP21	WBP4_HUMAN	x	x							
hPRP4-Kinase	PRP4B_HUMAN		x	x						
TBLR1	TBL1R_HUMAN			x				●		
SMC1	SMC1A_HUMAN			x						
p220(NPAT)	Q14207_HUMAN			x				●		
N-CoR1	NCOR1_HUMAN			x				●		
hPRP19/CDC5L-related										
CRNKL1/hSYF3	CRNL1_HUMAN		x	x	x	x	x			
Cyp-E	PPIE_HUMAN		x		x	x	x			
GCIP p29 (fSAP29)	SYF2_HUMAN		x		x	x	x			
G10 (fSAP17)	BUD31_HUMAN		x		x		x			
hIsy1 (fSAP133)	ISY1_HUMAN		x		x	x	x			
XAB2	SYF1_HUMAN		x		x	x	x			
KIAA0560 (fSAP164)	AQR_HUMAN		x		x	x	x			
MGC23918	CCD12_HUMAN		x		x		x			
PPIase-like 1	PPIL1_HUMAN		x		x	x	x			
PRCC	PRCC_HUMAN	x	x							
RBM22 (fSAP47)	RBM22_HUMAN		x		x	x	x			1
SKIP	SNW1_HUMAN		x	x	x	x	x			
hnRNP										
E1B-AP5	HNRL1_HUMAN						●		○	
hnRNP A0	ROA0_HUMAN		x				●	●		
hnRNP A1	ROA1_HUMAN	x	x		x	x	●	●		

hnRNP A3	ROA3_HUMAN	x	x			●			
hnRNP A/B	ROAA_HUMAN	x	x			●	●		
hnRNP A2/B1	ROA2_HUMAN	x	x	x	x	●	●		
hnRNP C1/C2	HNRPC_HUMAN	x	x	x	x	●	●		
hnRNP F	HNRPF_HUMAN		x		x	●	●	○	x x
hnRNP G	HNRPG_HUMAN	x		x	x	●	●	○	
hnRNP H	HNRH1_HUMAN				x			●	
hnRNP H2	HNRH2_HUMAN		x						
hnRNP K	HNRPK_HUMAN				x	●	●	○	x x x
hnRNP L	HNRPL_HUMAN			x		●			
hnRNP M	HNRPM_HUMAN	x	x		x	●		○	
hnRNP Q	HNRPQ_HUMAN	x	x			●	●	○	
hnRNP R	HNRPR_HUMAN		x		x	●			
hnRNP U	HNRPU_HUMAN	x			x	●	●	○	x x x
PCBP1	PCBP1_HUMAN	x	x			●	●	○	
RALY	RALY_HUMAN		x						

B*/C complex and step II proteins

Prp16	PRP16_HUMAN			x				○	
Prp17	PRP17_HUMAN	x			x	x			
hPrp22	DHX8_HUMAN			x	x				
hSLU7	O95391_HUMAN	x		x					

Cap binding complex

CBP20	NCBP1_HUMAN	x	x	x	x	●			
CBP80	NCBP2_HUMAN	x	x	x	x	●			

Proteins related to EJC

ALY	THOC4_HUMAN			x	x				
Magoh	MGN_HUMAN	x			x				
Nuk-34/eIF4A3	IF4A3_HUMAN	x		x	x				
Y14	RBM8A_HUMAN	x			x				

SR proteins

9G8	SFRS7_HUMAN	x	x	x	x	●	●		
SRp20	SFRS3_HUMAN	x	x	x	x	●	●		
SRp30c	SFRS9_HUMAN	x	x		x				
hTra-2 alpha	TRA2A_HUMAN	x		x					
SF2/ASF	SFRS1_HUMAN	x	x			●	●		
SRp40	SFRS5_HUMAN	x	x			●	●		
SRp55	SFRS6_HUMAN	x	x			●	●		
SRp75	SFRS4_HUMAN	x	x						
SC35 (SFRS2)	SFRS2_HUMAN	x	x			●	●		
hTra-2 beta/SFRS10	TRA2B_HUMAN	x	x			●	●		

SR-related proteins

ARGLU1	ARGL1_HUMAN	x	x						
SRm160	AAC0932.1 (???)	x	x		x				
SRm300	SRRM2_HUMAN	x	x		x				

<u>RES complex</u>								
SNIP1	SNIP1_HUMAN	x						
MGC13125	BUD13_HUMAN	x	x	x	x			
CGI-79	RBMX2_HUMAN	x						
<u>Non-snRNP proteins</u>								
ASR2B	ARS2_HUMAN	x	x			●		
p68 (DDX5)	DDX5_HUMAN	x	x	x	x	●	●	◎
SF4 (F23858)	SF04_HUMAN	x	x					
RNPC2	RBM39_HUMAN	x	x					
TLS/FUS	FUS_HUMAN	x	x			●	●	◎
ELAV (HuR)	ELAV1_HUMAN	x	x			●	●	
YB-1	YBOX1_HUMAN	x	x			●	●	◎
NFAR	ILF3_HUMAN	x	x			●	●	○
DDX9	DHX9_HUMAN	x	x			●	●	◎
RBM5/LUCA15	RBM5_HUMAN	x						
FLJ10839	CCAR1_HUMAN	x						
tat SF1	HTSF1_HUMAN	x	x			●	●	
CDC2L2	CD2L2_HUMAN	x	x	x				
RBM10	RBM10_HUMAN	x	x			●		
CA150	TCRG1_HUMAN	x	x	x		●	●	1
NRIP2	NRIP2_HUMAN	x	x					
LOC124245	EAW66801.1 (???)	x	x					
NIPP1	PP1R8_HUMAN	x	x					
HCNGP	S30BP_HUMAN	x	x					
PPP1CA	PP1A_HUMAN	x	x					
NF45	ILF2_HUMAN	x	x			●	●	○
p72/DDX17	DDX17_HUMAN	x	x			●	●	◎
Acinus	ACINU_HUMAN	x	x					
Pinin	PININ_HUMAN	x	x	x	x			
DNaJ homolog	AUXI_HUMAN	x						
BUB3	BUB3_HUMAN	x				●	●	
MGC2803 (fSAP18)	CS043_HUMAN	x						
RNPS1	RNPS1_HUMAN	x						
SF1	SF01_HUMAN	x				●	●	2 x x x x
ZNF207	ZN207_HUMAN	x				●	●	1 x
<u>Miscellaneous</u>								
p30 DBC	K1967_HUMAN	x				●		
SEC31-like 2	SC31B_HUMAN	x						
AGGF1	AGGF1_HUMAN	x						
CIRP	CIRBP_HUMAN	x				○		
TAFIIB	Q9Y6A4_HUMAN	x						
MFAP1	MFAP1_HUMAN	x		x	x			
RED	RED_HUMAN	x		x	x	●	●	
hSmu-1	SMU1_HUMAN	x		x	x			
hsp27	HSPB1_HUMAN	x						
LOC84081	CCD55_HUMAN	x						
UBL5	UBL5_HUMAN	x	x	x				
ZNF830	ZN830_HUMAN	x						

matrin 3	MATR3_HUMAN	x					
PPIL2/Cyp-60	PPIL2_HUMAN	x	x				
hPRP2	DHX16_HUMAN	x			●	●	●
DDX3	DDX3X_HUMAN	x			●	●	●
HSP70	HSP71_HUMAN	x			●	○	
RBM4	RBM4_HUMAN	x					
RBM7	RBM7_HUMAN	x					
MEP50	MEP50_HUMAN	x			●	●	
PRMT5 (SKB1)	ANM5_HUMAN	x			●	●	
PPIL4	PPIL4_HUMAN	x					
CyP64/PPWD	PPWD1_HUMAN	x	x				
KIAA1604	Q9HCG8_HUMAN	x	x				
Abstrakt	DDX41_HUMAN	x	x				
Cactin	CS029_HUMAN		x				
DGSI protein	DGC14_HUMAN		x				
MGC4238	MORG1_HUMAN		x				
SDCCAG10	Q6UX04_HUMAN		x				
FRG1	FRG1_HUMAN		x				
DKFZp434E2220	ZCHC8_HUMAN		x				
DDX35	DHX35_HUMAN		x	x			
FLJ10206	GPTC1_HUMAN		x	x			
FAM131B	F131B_HUMAN			x			
C25A1.10.p	CJ071_HUMAN			x			
S100 A8	S10A8_HUMAN			x			
S100 A9	S10A9_HUMAN			x			
SRp38	FUSIP_HUMAN	x					
DBPA	DBPA_HUMAN	x			○		
THOC4	THOC4_HUMAN	x					
UAP56	DDX39_HUMAN	x					
MT-A70	NP_066012.1 (???)	x					
Nm23	NDKA_HUMAN	x					
NPM1	NPM_HUMAN	x			●	●	○
PCBP2	PCBP2_HUMAN	x					
PABP	PABP1_HUMAN	x	x	x	●	●	○
HsKin17	O60870_HUMAN	x	x	x			
GCFC/fSAP105	GCFC_HUMAN	x					
NY-CO-10	Q6UX04_HUMAN	x					
PAPB2	PABP2_HUMAN		x	x			
hDbp5	DD19B_HUMAN			x			
PSF	SFPQ_HUMAN			x	●	●	○
HDB/DICE1	INT6_HUMAN		x				3
CPSF 160K	CPSF1_HUMAN		x		●	●	
PPIase-like 3	PPIL3_HUMAN		x	x			
KIF16B	KI16B_HUMAN	x	x				
Tip-48	RUVB2_HUMAN	x					
ZC3H13	ZC3HD_HUMAN		x				
p55PIK	P55G_HUMAN		x				
TPX2	TPX2_HUMAN		x				
TIP-49	RUVB1_HUMAN		x				
LOC56912	CK060_HUMAN		x				
RACK1	GBLP_HUMAN		x				
NOSIP	NOSIP_HUMAN		x		●		

DKFZP586O0120 FA32A_HUMAN X
IFPS X

Translation initiation factors

EIF3EIP IF3EI_HUMAN X
EIF3E EIF3E_HUMAN X
EIF3B EIF3B_HUMAN X
EIF3I EIF3I_HUMAN

Ribosomal proteins

S17	RS17_HUMAN	X
S18	RS18_HUMAN	X
S19	RS19_HUMAN	X
S20	RS20_HUMAN	X
S21	RS21_HUMAN	X
S25	RS25_HUMAN	X
L14	RL14_HUMAN	X
SA	RSSA_HUMAN	X
S2	RS2_HUMAN	X
S3	RS3_HUMAN	X
S3a	RS3A_HUMAN	X
S4	RS4Y2_HUMAN	X
S5	RS5_HUMAN	X
S6	RS6_HUMAN	X
S7	RS7_HUMAN	X
S12	RS12_HUMAN	X
S13	RS13_HUMAN	X

