Figure S1: Overall number and density of sites for RNA-binding proteins.

(A) Density of *SRSF1*-binding sites, fragments f1-f5 are determined as in Figureure 2. (B) Overall number of *SRSF1* binding sites. (C) Density of *SRSF2* binding sites. (D) Overall number of *SRSF2*-binding sites. (E) Density of *SRSF5*-binding sites. (F) Overall number of *SRSF5*-binding sites.
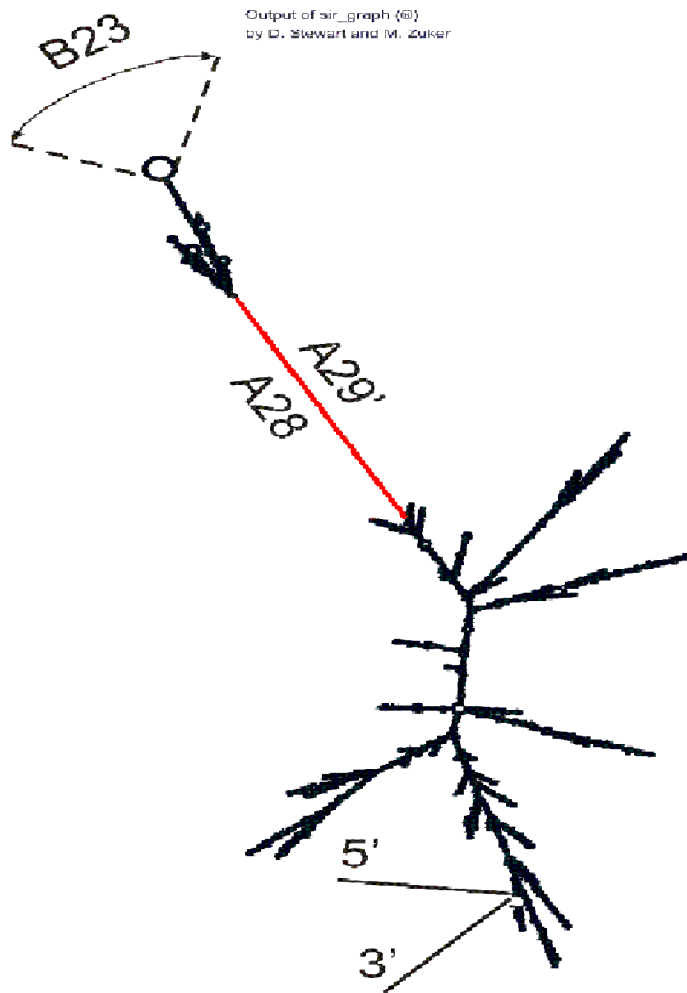
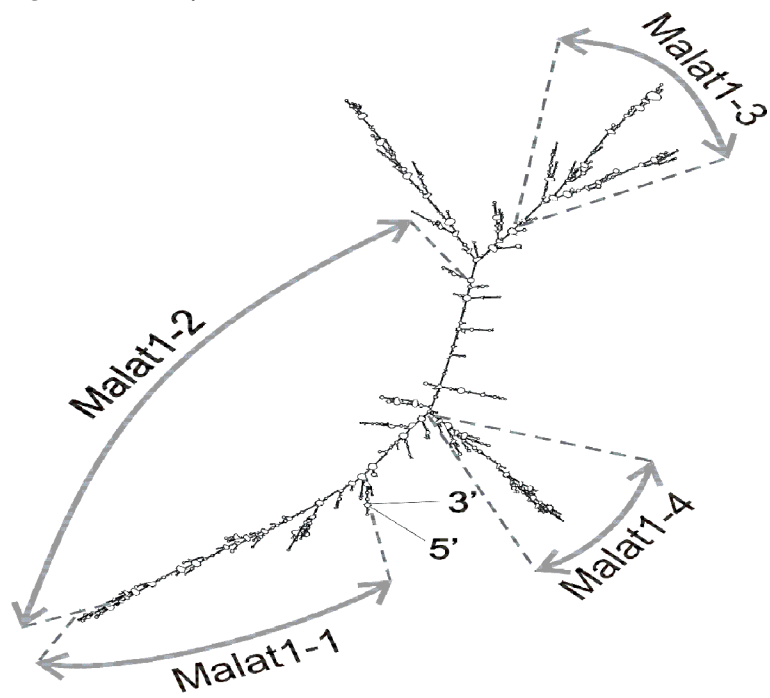**Figure S2:** Secondary structure of intron 8-exon 9 (Gene id).

GABRB3 (chr15)	Strand	GenBank, hg38	GenBank, hg38	Variants	Variants
B1	-	26761400	26761833	var1&var2&CR749803	
B2	-	26749050	26752225	var1&var2&CR749803	
B3	-	26744725	26746706	var1&var2&CR749803	
B4	-	26739444	26743766	var1&var2&CR749803	
B5	-	26733001	26733955	var1&var2&CR749803	
B6(Loop1)	-	26731993	26732330	var1&var2&CR749803	
B7	-	26730501	26731375	var1&var2&CR749803	
B8	-	26723905	26726840	var1&var2&CR749803	
B9	-	26719652	26723773	var1&var2&CR749803	
B10	-	26713425	26717035	var1&var2&CR749803	
B11-14	-	26701070	26709480	var1-var3&CR749803	
B11	-	26707441	26709480	var1-var3&CR749803	
B12	-	26704675	26706740	var1-var3&CR749803	
B13	-	26703179	26704674	var1-var3&CR749803	
B14	-	26701071	26703178	var1-var3&CR749803	
B15	-	26694420	26696650	var1-var3&CR749803	
B16	-	26690988	26693607	var1-var3&CR749803	
B17	-	26688340	26690574	var1-var3&CR749803	
B18	-	26678100	26680345	var1-var3&CR749803	
B19	-	26671051	26674228	var1-var3&CR749803	
B20	-	26661086	26663500	var1-var3&CR749803	
B21	-	26659951	26661086	var1-var3&CR749803	
B22	-	26656621	26657910	var1-var3&CR749803	
B23(Loop2)	-	26654770	26654843	var1-var3&CR749803	
B24	-	26652861	26654252	var1-var3&CR749803	
B25	-	26649001	26651125	var1-var3&CR749803	
B26	-	26640291	26641813	var1-var3&CR749803	
B27	-	26631351	26632790	var1-var3&CR749803	
B28	-	26614606	26618588	var1-var4,GABRB3	
B29-B30	-	26607857	26611524	var1-var4,GABRB3	
B31-B33	-	26601400	26604479	var1-var4,GABRB3	
B34	-	26595601	26599714	var1-var4,GABRB3	
B34_1	-	26596754	26598019	var1-var4,GABRB3	
B34_2	-	26595604	26596758	var1-var4,GABRB3	
B34_3	-	26594474	26595603	var1-var4,GABRB3	
B34'	-	26595524	26601100	var1-var4,GABRB3	
B35	-	26586269	26592759	var1-var4,GABRB3	

B35_1	-	26591369	26592029	var1-var4,GABRB3	
B35_2	-	26589789	26590994	var1-var4,GABRB3	
B35_3	-	26588463	26589789	var1-var4,GABRB3	
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B37	-	26577489	26577825	var1-var4,GABRB3	
B38	-	26572412	26573680	var1-var4,GABRB3	
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B40	-	26565511	26566441	var1-var4,GABRB3	
B41	-	26564436	26565380	var1-var4,GABRB3	
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B43	-	26556073	26558606	var1-var4,GABRB3	
B44	-	26553442	26554924	var1-var4,GABRB3	
B45	-	26548792	26552003	var1-var4,GABRB3	
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B47	+	26660250	26664692	chr15.137	Genscan
B48	+	26678766	26680322	chr15.137	Genscan
B49	-	26823960	26832305	part of intron1	CR749803,GenBank
B50	-	26846613	26850412	part of intron1	CR749803,GenBank
B51	+	26823959	26832314	chr15.140, intron1	Genscan
B52	+	26847090	26849890	chr15.140, intron2	Genscan
B53	+	26887682	26893425	intron4, GABRA5	EU176251,Genbank
B54	+	26893425	26895478	intron4,GABRA5	EU176251,Genbank
B55	+	26899197	26902752	intron4, GABRA5	EU176251,Genbank
B56	+	26906023	26910407	intron4,GABRA5	EU176251,Genbank
B57	+	26919150	26922781	intron5, GABRA5	EU176251,Genbank
B58	+	26923697	26926394	intron5, GABRA5	EU176251,Genbank
B59	+	26931196	26933931	intron5, GABRA5	EU176251,Genbank
Malat1_chr11	+	65497762	65506468		EF177381,GenBank
Malat1_1	+	65497842	65499833		EF177381,GenBank
Malat1_2	+	65499829	65500529		EF177381,GenBank
Malat1_3	+	65500709	65501949		EF177381,GenBank
Malat1_4	+	65502279	65503924		EF177381,GenBank
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Alu2(+*)	-	26763864	26764179	var1-var2&CR749803	
Alu3(-*)	-	26761833	26762131	var1-var2&CR749803	
Alu4(+*)	-	26761113	26761405	var1-var2&CR749803	
Alu5(-*)	-	26759265	26759558	var1-var2&CR749803	
Alu6(+*)	-	26756288	26756586	var1-var2&CR749803	
Alu7(-*)	-	26755006	26755304	var1-var2&CR749803	
Alu8	-	26752219	26752569	var1-var2&CR749803	
Alu9	-	26748737	26749062	var1-var2&CR749803	
Alu10	-	26746712	26746992	var1-var2&CR749803	

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Alu14	-	26732689	26732995	var1-var2&CR749803	
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Alu43	-	26554924	26555206	var1-var4&CR749803	
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Alu45	-	26552007	26552319	var1-var4&CR749803	
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L2(line)	-	26559132	26559405	var1-var4&CR749803	
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Intron2, Figure3	-	26772468	26772677	chr15_99.1, Gene id	var1&var2
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Intron6, Figure 3	-	26684141	26723775	chr15_99.1, Gene id	var1&var2
Intron7, Figure3	-	26658637	26684107	chr15_99.1, Gene id	var1&var2
Intron8, Figure3	-	26644917	26658472	chr15_99.1, Gene id	var1&var2
Intron9, Figure	-	26621535	26644938	chr15_99.1, Gene id	var1&var2
Intron1	-	26816365	26939237	chr15_99.1, Gene id	CR749803,GenBank
part of intron1	-	26820221	26866420		CR749803,GenBank
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Intron1	-	26772773	26772883	M82919, var1	GenBank
Intron2	-	26772470	26772682	M82919 , var1	GenBank
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Intron (1), Figure4	-	26621535	26628977		(AK295167,var4)
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intron5(3), Figure4	-	26580457	26583332	var1-var2	(AK295167,var4)
Intron6(4), Figure4	-	26567733	26580319	var1-var2	(AK295167,var4)
Intron7(5)m Figure4	-	26561176	26567581	var1-var2	(AK295167,var4)
Intron8(6), Figure .4	-	26548134	26560932	var1-var2	(AK295167,var4)
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Intron1(7), Figure5	-	26658637	26684107	AK302822, var3	(chr15_99.1, Gene id)
Intron1(8), Figure5	-	26644917	26658472	AK302822, var3	(chr15_99.1, Gene id)
Intron1(9), Figure5	-	26621535	26644938	AK302822, var3	(chr15_99.1, Gene id)
Intron2, Figure5	-	26583444	26621314	AK302822, var3	GenBank
Intron3, Figure5	-	26580457	26583332	AK302822, var3	GenBank
Intron4, Figure5	-	26567733	26580319	AK302822, var3	GenBank
Intron5, Figure5	-	26561176	26567581	AK302822, var3	GenBank
Intron6, Figure5	-	26548134	26560932	AK302822, var3	GenBank
Intron1	+	26640605	26666945	Chr15.137	Genescan
Intron2	+	26667032	26670030	Chr15.137	Genescan
Intron3	+	26670191	26673580	Chr15.137	Genescan
Intron4	+	26673691	26683070	Chr15.137	Genescan
Intron5	+	26683151	26683550	Chr15.137	Genescan
Intron6	+	26683882	26684306	Chr15.137	Genescan
Intron7	+	26684367	26691084	Chr15.137	Genescan
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Intron3	+	26866608	26867008	Chr15.140	Genescan

Intron4	+	26867385	26875306	Chr15.140	Genescan
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Intron7	+	26883234	26883337	Chr15.140	Genescan
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Intron12	+	26907517	26914803	Chr15.140	Genescan
Intron13	+	26914886	26937185	Chr15.140	Genescan
Intron14	+	26937329	26939229	Chr15.140	Genescan
Intron15	+	26939382	26939925	Chr15.140	Genescan
Intron16	+	26940078	26943215	Chr15.140	Genescan
Intron17	+	26943427	26947788	Chr15.140	Genescan
Intron18	+	26947877	26977002	Chr15.140	Genescan
Intron19	+	26977151	26981769	Chr15.140	Genescan
GABRA5	+	26869249	26948232		EU176251,Genbank
Intron1, Figure7	+	26869334	26880845		EU176251,Genbank
Intron2, Figure7	+	26880967	26883165		EU176251,Genbank
Intron3, Figure 7	+	26883233	26883336		EU176251,Genbank
Intron4, Figure7	+	26883558	26914802		EU176251,Genbank
Intron5, Figure 7	+	26914982	26937184		EU176251,Genbank
Intron6, Figure7	+	26937328	26939924		EU176251,Genbank
Intron7, Figure7	+	26940077	26943214		EU176251,Genbank
Intron8, Figure7	+	26943426	26947933		EU176251,Genbank
* concerning (+) ** alternative splicing					

Table S1: Nucleotide sequence localization of elements for the *Homo sapiens* locus 15q11-12.