

Table S1. Susceptibility of LQT2 frameshift and nonsense mutations to NMD

Exon	Reported LQT2 Mutation	Nucleotide Change	Amino Acid Change	NMD	Reference
1	G24fs+34X	c.73del	p.Q25Rfs*35	No	17
2	N33fs+25X	c.100del	p.A34Lfs*26	No	17
2	C39X	c.117C>A	p.C39*	No	9
2	C44X	c.132C>A	p.C44*	No	23, 33
2	E50fs+10X			No	24
2	R73fs+39X	c.219_226delinsT	p.T74Afs*40	No	17
2	R73fs/31	c.221_251del	p.T74Rfs*32	No	33, 38
2	A78fs+62X	c.234_241del	p.A79Dfs*63	Yes	17
2	A83fs/37	c.234_250dup	p.E84Lfs*38	No	23, 33
2	p.A79Dfs*63	c.235_242del	p.A79Dfs*63	Yes	34
2	Q81X	c.241C>T	p.Q81*	No	33
2	Q84X	c.250C>T	p.Q84*	No	20
3	V131fs/185	c.395_456del	p.V132Efs*179	Yes	38
3	P141fs/2	c.422_423insC	p.A142Gfs*3	Yes	33
3	P151fs+179X	c.446_447insG	p.T152Hfs*180	Yes	17, 24
3	T152Pfs*14	c.453del	p.T152Pfs*14	Yes	9, 19, 27, 34, 36
3	P151fs/179	c.453_454insC	p.T152Hfs*180	Yes	17, 22, 33, 38, 42
3	I51fs/14	c.453_454insCC	p.T152Pfs*15	Yes	38
4	P168fs+4X	c.506del	p.A169Gfs*5	Yes	17
4	p.Glu177X	c.529G>T	p.E177*	Yes	32
4	R181fs/20	c.544_545insGGTGC	p.S182Wfs*22	Yes	38
4	S182X	c.545C>A	p.S182*	Yes	17, 20, 38
4	S182fs+17X	c.548del	p.G183Afs*18	Yes	17
4	A185fs+143X	c.557_566delinsTTCCG	p.G186Vfs*144	Yes	25
4	G192fs+7X	c.576del	p.A193Pfs*8	Yes	25
4	G192fs+135X	c.578_582del	p.A193Gfs*137	Yes	15, 25, 40
4	L200fs/144	c.558_600dup	p.T201Rfs*145	Yes	12, 33, 40
4	T216 fs/120			Yes	40
4	E214X	c.640G>T	p.E214*	Yes	17
4	E229X	c.685G>T	p.E229*	Yes	3, 17, 38
4	P241fs/89	c.724_725insC	p.R242Pfs*90	Yes	33
4	P245fs+114X	c.735_736insCC	p.G246Pfs*115	Yes	25
4	Gly246AlafsX114	c.735del	p.G246Afs*114	Yes	20
4	P251 fs/107	c.754del	p.R252Gfs*108	Yes	16, 40
4	A253fs+76X	c.759_760del	p.H254Qfs*77	Yes	17
4	R273X	c.817 C>T	p.R273*	Yes	9
4	C276fsX359	c.823del	p.S275Afs*85	Yes	39
4	Cys276AlafsX84	c.826del	p.C276Afs*84	Yes	20
4	p.D287Gfs*47	c.853_859dup	p.D287Gfs*47	Yes	34
4	E289X	c.865G>T	p.E289*	Yes	20
4	V295fs/63	c.885del	p.L296Cfs*64	Yes	23, 33
5	M308fs+50X	c.925del	p.H309Tfs*51	Yes	17
5	p.S320X	c.959C>A	p.S320*	Yes	22
5	R326fs/0	c.981_991del	p.Y327*	Yes	38
5	Q335X	c.1003C>T	p.Q335*	Yes	30
5	Q335fs+23X	c.1006del	p.I336Sfs*24	Yes	17
5	K364fs+3X			Yes	24

Table S1. Susceptibility of LQT2 frameshift and nonsense mutations to NMD (continued)

Exon	Reported LQT2 Mutation	Nucleotide Change	Amino Acid Change	NMD	Reference
5	R366X	c.1096C>T	p.R366*	Yes	17, 38
6	S379fs+53X	c.1138del	p.L380Wfs*54	Yes	17
6	S379fs+53X	c.1139del	p.L380Rfs*54	Yes	17
6	K386fs+3X			Yes	24
6	Q391X	c.1171C>T	p.E391*	Yes	24, 25
6	W398X	c.1193G>A	p.W398*	Yes	17
6	W412X	c.1235G>A	p.W412*	Yes	25
6	I414fs+98X	c.1243_1256del	p.L416Hfs*98	Yes	10
6	Y420fs/12	c.1261del	p.T421Rfs*13	Yes	8, 33
6	A422fs+10X	c.1266del	p.V423Sfs*11	Yes	17
6	S428STOP	c.1283C>A	p.S428*	Yes	23, 29, 33
6	E438fs+81X	c.1316del	p.G439Afs*82	Yes	17
6	E444X	c.1330G>T	p.E444*	Yes	20
6	I335delTG	c.1335_1336del	p.C445Wfs*73	Yes	3
6	Tyr447stop	c.1341C>A	p.Y447*	Yes	15, 17
6	Q450X	c.1348C>T	p.Q450*	Yes	17
6	V459fs+60X	c.1379del	p.D460Afs*61	Yes	17
6	I382delA	c.1382del	p.I461Tfs*60	Yes	9
6	F471fs+50X			Yes	24
6	T473fs+26X	c.1419_1472delinsA	p.T474Pfs*27	Yes	17
6	Y493X	c.1479C>G	p.Y493*	Yes	14, 33
6	Y493X	c.1479C>A	p.Y493*	Yes	20
6	W497X	c.1490G>A	p.W497*	Yes	9, 24
7	R537fs+24X	c.1613_1619del	p.K538Ifs*25	Yes	17, 25
7	L539 fs/47	c.1619_1637del	p.D540Afs*48	Yes	43
7	I631delAG	c.1631_1632del	p.E544Vfs*110	Yes	2, 9, 19, 36
7	T556fs/7	c.1671del	p.F557Lfs*8	Yes	31, 33
7	W563X	c.1688G>A	p.W563*	Yes	3, 17, 34
7	I567fs+26X	c.1701del	p.W568Gfs*26	Yes	25
7	W568X	c.1704G>A	p.W568*	Yes	17
7	Met579GlyX75	c.1735_1736del	p.M579Gfs*75	Yes	11
7	S581X	c.1742C>A	p.S581*	Yes	17
7	R582fs/11	c.1746_1747insGC	p.I583Afs*12	Yes	39
7	I593X		p.I593*	Yes	23
7	Y611X		p.Y611*	Yes	31, 33
7	T634fs/78	c.1902del	p.N635Tfs*79	Yes	39
8	L650fs/2	c.1951_1952del	p.M651Vfs*3	Yes	14, 33
8	M651fs+68X	c.1955_1960delinsT	p.Y652Lfs*69	Yes	17
8	M651fs+X	c.1956del	p.Y652fs*	Yes	17
8	Y652X		p.Y652*	Yes	35
8	Y667X	c.2001C>A	p.Y667*	Yes	28
8	E682X	c.2044G>T	p.E682*	Yes	33
8	Q688X		p.Q688*	Yes	30
8	Glu698stop	c.2092G>T	p.E698*	Yes	15, 40
8	His703ProfsX11	c.2108del	p.H703Pfs*11	Yes	20
8	p.W705X	c.2114G>A	p.W705*	Yes	22
9	K718fs+13X	c.2156del	p.G719Afs*14	Yes	17

Table S1. Susceptibility of LQT2 frameshift and nonsense mutations to NMD (continued)

Exon	Reported LQT2 Mutation	Nucleotide Change	Amino Acid Change	NMD	Reference
9	Q725X	c.2173C>T	p.Q725*	Yes	14, 33
9	Q738X	c.2212C>T	p.Q738*	Yes	24
9	H739fs/63	c.2218_2219insT	p.C740Lfs*64	Yes	33
9	p.R744EfsX13	c.2230del	p.R744Efs*13	Yes	13, 42
9	R744stop	c.2230C>T	p.R744*	Yes	17, 23
9	F743fs+12X	c.2231del	p.R744Qfs*13	Yes	25
9	G745fs+54X	c.2235_2245delinsTTT	p.A746Lfs*55	Yes	42
9	A753fs+6X	c.2249_2259dup	p.K754Afs*7	Yes	17
9	R783 fs/24			Yes	40
9	V796fs/22	c.2356_2386dup	p.A797Hfs*17	Yes	14, 33
9	I798fs/10	c.2395del	p.L799Wfs*11	Yes	33, 38
10	2399delG	c.2399del	p.K801Rfs*9	Yes	3
10	G806fs+2X	c.2419del	p.E807Sfs*3	Yes	17
10	Arg823fs828	c.2470_2471insG	p.A824Gfs*6	Yes	15
10	K832X	c.2494A>T	p.K832*	Yes	17, 25
10	W853fs+14X			Yes	24
10	R863X	c.2587C>T	p.R863*	Yes	17, 20, 24, 37, 38, 40
11	Pro872fs877	c.2616del	p.G873Afs*5	Yes	15
11	p.E876fs	c.2619_2626dup	p.E876Afs*5	Yes	22
11	E876X	c.2626G>T	p.E876*	Yes	20, 38
11	G879fs+38X	c.2637_2638del	p.G880Lfs*39	Yes	42
11	G879fs+35X	c.2638_2648del	p.G880Afs*36	Yes	25
11	Q884X	c.2650C>T	p.Q884*	Yes	3
11	K886fs+88X	c.2659_2660insCAAGC	p.R887Pfs*89	Yes	17
11	K886fs/85	c.2660del	p.R887Pfs*87	Yes	33
11	R892fs+79X	c.2676_2682del	p.R894Tfs*78	Yes	25
11	R893fs+81X	c.2676_2680dup	p.R894Pfs*82	Yes	17
11	p.R894fsX920	c.2680_2681insAGGC	p.R894Qfs*27	Yes	26
12	Q901fs/71	c.2705del	p.P902Qfs*72	Yes	38
12	A907fs+12X	c.2718_2721dup	p.L908Gfs*13	Yes	17
12	G909fs+58X	c.2729_2744del	p.P910Qfs*59	Yes	17
12	P910fs/16	c.2728_2762del	p.R911Afs*17	Yes	38
12	L911fs+6X			Yes	24
12	R912fs+55X	c.2736_2751del	p.A913Vfs*56	Yes	17
12	R912fs+63X			Yes	24
12	G914fs+60X	c.2734_2738dup	p.A915Rfs*61	Yes	17
12	p.A915fs	c.2742_2775del	p.A915Rfs*48	Yes	22
12	R920fs/51	c.2762del	p.G921Afs*53	Yes	23, 33, 38
12	R922fs+50X	c.2766del	p.P923Rfs*51	Yes	38
12	P923RfsX51	c.2768del	p.P923Rfs*51	Yes	13, 18
12	Gly925ValfsX49	c.2774_2775delinsT	p.G925Vfs*49	Yes	20
12	G925fs/13	c.2775_2776insG	p.P926Afs*14	Yes	22, 33
12	fsGly925	c.2775del	p.P926Rfs*48	Yes	23, 25
12	W927X	c.2780G>A	p.W927*	Yes	17
12	W927X	c.2781G>A	p.W927*	Yes	25
12	G928fs+44X	c.2784del	p.E929Rfs*45	Yes	17
12	G928fs/10	c.2785_2786insG	p.E929Rfs*11	Yes	38

Table S1. Susceptibility of LQT2 frameshift and nonsense mutations to NMD (continued)

Exon	Reported LQT2 Mutation	Nucleotide Change	Amino Acid Change	NMD	Reference
12	P964fs+8X	c.2892del	p.G965Efs*9	Yes	17, 20
12	P964fs+153X	c.2892_2893insC	p.G965Rfs*154	No	17
12	G965X	c.2893G>T	p.G965*	Yes	6
12	G965+148X	c.2895_2905del	p.E966Wfs*149	No	25
12	2900_2901insC	c.2900_2901insC	p.P968Afs*151	No	3
12	P968fs/4	c.2906del	p.G969Vfs*5	Yes	23, 33
12	P972fs+1X	c.2918_2919insCC	p.L973Pfs*2	Yes	17
12	P986fs/130	c.2959_2960del	p.L987Vfs*131	No	17, 33, 34
12	Ser988ProfsX71	c.2956_2960dup	p.S988Pfs*71	Yes	20
13	F1000fs+117X	c.3001_3002insT	p.W1001Lfs*118	No	17
13	W1001stop	c.3002G>A	p.W1001*	Yes	7, 17, 20, 23
13	R1005fs/50	c.3014del	p.G1006Afs*51	Yes	38
13	R1007fs+1056X	c.3019del	p.R1007Afs*50	Yes	42
13	Q1010fs+45X	c.3032del	p.E1011Gfs*46	Yes	17
13	R1014PfsX39	c.3036_3048del	p.R1014Pfs*39	Yes	6
13	Arg1014ProfsX101	c.3039_3049del	p.R1014Pfs*101	No	20
13	R1014X	c.3040C>T	p.R1014*	Yes	17, 20, 33, 38
13	C1015X	c.3045C>A	p.C1015*	Yes	25
13	Ser1021AlafsX36	c.3060del	p.S1021Afs*36	Yes	20
13	L1021fs+34X	c.3065del	p.L1022Pfs*35	Yes	41, 42
13	S1029fs+27X	c.3086_3087dup	p.P1030Afs*28	Yes	17
13	G1031fs+87X	c.3090_3093dup	p.R1032Gfs*88	No	17
13	G1031fs/24	c.3094del	p.R1032Gfs*25	Yes	17, 33
13	p.R1032fs	c.3096_3112del	p.R1033Gfs*80	No	22
13	R1032fs+85X	c.3097_3098insC	p.R1033Pfs*86	No	17
13	R1033fs+79X	c.3093_3106del	p.P1034Gfs*80	No	17
13	R1033fs/23	c.3098_3099insCG	p.P1034Gfs*24	Yes	38
13	P1034fs+21X	c.3099del	p.R1035Gfs*22	Yes	17, 20, 25
13	R1033fs+79X	c.3099_3112del	p.P1034Gfs*80	No	17
13	R1033fs+23X	c.3099_3100insCG	p.P1034Rfs*24	Yes	17
13	R1033fs+82X	c.3100_3107delinsGGC	p.P1034Gfs*83	No	17
13	R1033fs/81	c.3101_3108del	p.P1034Rfs*82	No	17, 38
13	P1034fs+18X	c.3102_3111del	p.R1035Wfs*19	Yes	17
13	P1034fs+21X	c.3103del	p.R1035Gfs*22	Yes	17, 24, 38
13	P1034fs+83X	c.3103_3104insC	p.R1035Pfs*84	No	17
13	G1036AfsX21	c.3107del	p.G1036Afs*21	Yes	20
13	G1036fs/82	c.3107_3108insG	p.D1037Rfs*82	No	4, 17, 21, 33, 34
13	D1037fs+23X	c.3099_3112dup	p.V1038Gfs*24	Yes	17
13	p.D1037fs	c.3106_3109dup	p.D1037Gfs*83	No	22
13	V1038fs/80	c.3106_3112dup	p.V1038Gfs*83	No	38
13	V1038AfsX21	c.3107_3111dup	p.V1038Afs*21	Yes	6
14	R1051fs+4X	c.3154del	p.L1052Wfs*5	Yes	25
14	E1053X	c.3157G>T	p.E1053*	Yes	38
14	3160insA	c.3159_3160insA	p.T1054Nfs*65	No	9
14	p.T1054fsX2	c.3161del	p.R1055Gfs*2	Yes	1
14	L1056fs/61	c.3167_3168insT	p.S1057Efs*62	No	38
14	S1057fs/60	c.3172_3173insG	p.A1058Gfs*61	No	38

Table S1. Susceptibility of LQT2 frameshift and nonsense mutations to NMD (continued)

Exon	Reported LQT2 Mutation	Nucleotide Change	Amino Acid Change	NMD	Reference
14	L1064fsX1068			Yes	7
14	Q1070X	c.3208C>T	p.Q1070*	Yes	5
14	A1077fs+X	c.3234del	p.Y1078*	Yes	17
14	G1085fs+32X	c.3255_3256insG	p.P1086Afs*33	No	17
14	P1101fs	c.3303_3304insC	p.T1102Hfs*17	No	25, 33
15	T1133fs+135X	c.3397_3398del	p.R1134Tfs*135	No	25
15	R1135fs+134X	c.3403_3406dup	p.L1136Pfs*135	No	17
15	G1158fs+110X	c.3470_3471insC	p.S1159Qfs*111	No	17

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