

**Supplementary Table 2****Exon-flanking primers used for PCR amplification and sequencing of human *UBR1***

Exon(s)	Primer sequence forward	Primer sequence reverse	product size (bp)
UBR1_ Ex1	aacagttcccagcaccaaac	agacttggctggcagaaatg	530
UBR1_ Ex2	ggtggtatgtgagcagttgc	tgggtcacacagcaagactc	535
UBR1_ Ex3	ggtcaaggcccaagttatg	tttctgtaaagcaacacacatcc	510
UBR1_ Ex4	tttctgcacactttgcaatc	aaaacagcagggttctaactgg	543
UBR1_ Ex5	ttcattcctggacgatgttg	ggatgagaggctgctaggtc	550
UBR1_ Ex6	aaattagctgggggtgtggtg	agcaagggtcagtcaacat	539
UBR1_ Ex7+8	gagctcattaagtctttgggctac	gcaacctgaaaattaatcaaag	645
UBR1_ Ex9	cactgtgagaggctgaggtg	aaagacaacatcctgggttt	442
UBR1_ Ex10	ggaggggtgcagaaaaagag	ttcaaatgatccaccacct	496
UBR1_ Ex11	ttttgctgatcataatatcttgc	tcattctgattgacgaggac	446
UBR1_ Ex12	cctgtctaattgggcttggag	acgcgaggcagtaacagttc	547
UBR1_ Ex13	agttagctgtgacaggcttgg	ggatctatcaaacaggatgagtg	558
UBR1_ Ex14	ttgaacctcatgcattctgac	ttccagggaataaacgtgtg	532
UBR1_ Ex15	tgcagtgagctgtgattatgc	tgggtgggagatgagttacc	582
UBR1_ Ex16+17	gccaaatcaaatgcacaag	cactcagtaaaatctaggaacacagg	655
UBR1_ Ex18	tcactctcgctagtccttt	tgtaaaagcctcggcaagt	562
UBR1_ Ex19	ttttgacagtcctacatgagacaa	aaggaagggatccagaacaaa	544
UBR1_ Ex20	tgaggggctgttagagaag	tctgtcttttgaaggtga	583
UBR1_ Ex21	ctttgcccctctctcacag	tccagatcccttaccattg	595
UBR1_ Ex22	cgaagttggtctccaaaac	ccctcattctcacccttc	381
UBR1_ Ex23	attgcaatggaattttcataag	tgatgaagtccatgatgcttg	503
UBR1_ Ex24	ggtgatgtctggctttgtcc	gttgcccactctcaaaaacc	472
UBR1_ Ex25	ggtttttgagagtgggcaac	gacctgagatcttcctagctc	539
UBR1_ Ex26	gtcgtgtgcacctctagtc	aaagtggggcgatcatgtag	571
UBR1_ Ex27	tggactttgatgtccacagg	gtgagcatggacatggtag	447
UBR1_ Ex28	ggcgtttgtcacagttagag	tcccagacctcaagtgatcta	545
UBR1_ Ex29a	tgtcatgcagcctgtaatgc	tgagttgtaattttggtttgc	380
UBR1_ Ex29b	aattttgccatccaaacagc	tcctatgacctgccaatc	359
UBR1_ Ex30	ggaaaagggggaagcttttaac	aggaattgaagacattttgagaac	568
UBR1_ Ex31	tgcttgacattcctaagacag	gcccggccaattattacttt	472
UBR1_ Ex32	ttattggggcaaaaattcca	tcagccccctcaagtaactg	488
UBR1_ Ex33	ttccttccccttccaaaag	tcaagaaatctgtactgcaaac	383
UBR1_ Ex34	cctgggagatggaagctaca	gatggaagcctacactgtttcc	321
UBR1_ Ex35	aaccccttctagctgtgagc	accagaccaaattggcatgag	600
UBR1_ Ex36	aagattgctgcaggtgcttt	cgctgtaaagtgcacatgct	483
UBR1_ Ex37	tcagctctgggaaaact	ttgcatggcttctgtaggtg	526
UBR1_ Ex38	gcagcctttctcagttcag	gaaaaaggccagaagaggag	552
UBR1_ Ex39	ctgctgcccttcacatttag	aagcaggtccaagtggcttc	488
UBR1_ Ex40	ggcaacaagagcgaactct	aaaactgaaactacacccttcc	468
UBR1_ Ex41	tgcccggctaattcagtaga	atggggagaggagaagtgg	499
UBR1_ Ex42	tgccacctatggtttatag	tttccacctttaatcag	365
UBR1_ Ex43	tgaaccttaggagggcagaagc	aggaaaaggacagccactcc	420
UBR1_ Ex44	tcactttgggcagttttga	ttgaggctgcagttagctta	364
UBR1_ Ex45	tgggcatgtcagatgaagac	ccatagtgacccccagattg	571
UBR1_ Ex46	ccaccattttcaaggtgtc	cggtgtctggcctcaattac	544
UBR1_ Ex47	ggctccaggaacatctcaag	acctggacatggagcaaaag	363