

Z2044	P AGATTTAACATTCCTTTCTGTAATCTTCTGTCAGTCTTTTCCCTCAGCC GAGACATATAATTAAGACCT TAACCAAGCCTAACTTAATGCTTTGTTGAG R AGATTTAACATTCCTTTCTGTAATCTTCTGTCAGTCTTTTCCCTCAGCC GAGACAT-TAA-T-AGACCT TAACCAAGCCTAACTTAATGCTTTGTTGAG D TCTTATCAGCTATCTTAGACTGCTCTTAAACAATGATAAATGTAATTA GAGACAT-TAA-T-AGACCT CAGATGTAATCTTGTGGCTTAAGTATTAT	4/-7 (-3)	1	1: 109295951-7	<i>STXBP3</i>	Individual 3 (cancer)	NC_018913 AC_000134	16: 52515490-507 ^f (18)	-15.86	
Z109	P ATCGCAGGGAGCCAGCACCTGTGCCAGTCCCTGG AGCTGCCACCCACCCACAGT CAGTGTCTTCTGGCTGTGCACAGTGGCTGGACCCCATGTTCACTTGAT R ATCGCAGGGAGCCAGCACCTGTGCCAGTCCCTGG AGCTGCC-ACTGTGC-ACAGT CAGTGTCTTCTGGCTGTGCACAGTGGCTGGACCCCATGTTCACTTGAT D CCATGATTATCTGGGAGTTAGAATCCATAATA AGCTGCC-ACTGTGC-ACAGT GATTGTGTGCTGGTGGCTTTACATCTATTTTCTCATTTAATTCCT	7/-9 (-2)	1	11: 111830181-9	<i>DIXDC1</i>	Individual 1 (cancer)	-	3: 186699709-27 (19)	-14.41	
Z2342	P GATTTTCTAGGGTGTGGTGTGTCAGCATCCCTGCCTGCTACCC CAGGGGATGTCAATAGTCTCT TTTCAGTTGTGACCCCAATGTTATCCAAACTTGCCAAATGTC ^g R GATTTTCTAGGGTGTGGTGTGTCAGCATCCCTGCCTGCTACCC CAGGG-ATGCTGG--GTCTCT TTTCAGTTGTGACCCCAATGTTATCCAAACTTGCCAAATGTC D GCATGTCTGGGGAGGAGAGGAGGCTTCTGTCTGGGAT CAGGG-ATGCTGG--GTCTCT AGGTGGTCTTATTAAGGAGTGTTTAACTGGCTACCCCTTG	7/-10 (-3)	1	19: 57247132-41	IR	Individual 3 (cancer)	-	3: 72166496-513 15: 57710360-77 (18)	-12.30	Two possible donor molecules with the same thermodynamic properties.
Z248	P TGAGGAGTCAGGAACCTGTGGATGGTGTGGACAGAGCAGGACAGGGCCCTG GCTCAGGTGT--CCAGAGGCT GGCCGTGGCCCTCCCTATGGGATCAGACT R TGAGGAGTCAGGAACCTGTGGATGGTGTGGACAGAGCAGGACAGGGCCCTG GCTCTGCCGCTGCCAGAGGCT GGCCGTGGCCCTCCCTATGGGATCAGACT D GGCTTCACGGAGAGAACCTGTGGAGCAGGGACAAAATGTCCAGGAGCC GCTCTGCCGCTGCCAGGG CGTTAAGACCTCCTGTCCCTTTCGTTTAA	8/-6 (2)	1	19: 51362585-90	<i>KLK3</i>	Individual 1 (cancer)	NC_018930	14: 54430753-71 ^f (19)	-11.83	
Z2151	P TTTGTGCAGCTATTTCTCTTTACGCATTTTACT AACTATCCATGCCGTGAAGAT GGAGGAACAAAAGATGGGTAACAGTTAGCTAAGCAGCTGCTGCTGAAAAT R TTTGTGCAGCTATTTCTCTTTACGCATTTTACT AACTAA--ATGCCGT-AAGAT GGAGGAACAAAAGATGGGTAACAGTTAGCTAAGCAGCTGCTGCTGAAAAT D ACTTCCTATAAACATCTCAATCAATAACACAA AACTAA--ATGCCGT-AAGA GCCCTCCTCAATCTGTTACTCCCGTCTTCCCTATGCTCACATCTGGT	1/-3 (-2)	1	13: 26744624-6	<i>RNF6</i>	Individual 3 (cancer)	AC_000146	15: 60554665-80 (16)	-11.10	
Z699	P TGCCAGATGTTGTGGAAGGCAATAGAAAAGAAAA TAAACAACAACAATAAACAACA CAACAACAACAACCTAAATGCTCCAAGTTTGTAGAGGAACCTTAC R TGCCAGATGTTGTGGAAGGCAATAGAAAAGAAAA TAAACAACAACA--AACACA CAACAACAACAACCTAAATGCTCCAAGTTTGTAGAGGAACCTTAC D AAACAGCACAGGAACGAGTATGTTTTCAGCTAT TAAACAACAACA--AACACA ACCTGCCATGAAGGAATTATCTGGGTATCTGTAACCTTTTGT	12/-14 (-2)	1	3: 77712076-89	IR	Individual 1 (blood)	-	5: 14619566-86 ^f (21)	-10.22	
Z1899	P CTAACCTTAGTGAGATAACACTGATGAAAGAGTCTCT AGGTAATGGCCGGGGGGGGCAAC AGCATACTTTTCCAGAGAAGGAACATAGCTCTAAGTCTCCA R CTAACCTTAGTGAGATAACACTGATGAAAGAGTCTCT AGGTAATGG-A-GG-GGGG-GAAC AGCATACTTTTCCAGAGAAGGAACATAGCTCTAAGTCTCCA D TGGGACCAGGAGACAGGACTAGGATGAGGGGGGGGG AGGATATGG-A-GG-GGGG-GAAC GAGGGGCATGAGCTGGTGGGGCATGGACTGGCAAGAGGG	7/-11 (-4)	1	4: 135862829-39	IR	Individual 2 (blood)	NC_018916	1: 155064573-92 (20)	-9.40	
Z640	P GAGGTGTGCCTGTGGCTGGCATCCTGTGGGGATATCTACAGGGAAGCCCCAG TGTGGGGC-A-AGAGGC CCACAGCTGGGGCCTGGGGAGGCACCTCAGAC R GAGGTGTGCCTGTGGCTGGCATCCTGTGGGGATATCTACAGGGAAGCCCCAG TGTGGCCCTGGGGAGGC CCACAGCTGGGGCCTGGGGAGGCACCTCAGAC D GGAGAGCTGGGTGAAAAGGCCCTGAAGGTCTGGAAGGTCTCTGGGACC TGTGGCCCTGGGGAGGC ATGGAGGGCAGTTGGCAGGTTAGGAATGTGG	7/-5 (2)	1	2: 240596941-5	IR	Individual 1 (blood)	-	22: 30119257-73 (17)	-8.63	
Z613	P AAGAGGGTGGCCTTCCATTAAAGACCAGTGAATGATACA GAAAGTGAAGAACCTTGTTCAG ATAGCCGTGATAATATAATGTTATAAAATCTTCATCTTTCTGT R AAGAGGGTGGCCTTCCATTAAAGACCAGTGAATGATACA GAAAGTGAAGAAC--TGCTGTTCAG ATAGCCGTGATAATATAATGTTATAAAATCTTCATCTTTCTGT D GGAACCAATTATATCTGTTTATTCAATTTATTGTAAG GAAAGTGAAGAAC--TGCTGTTCAG TCTCTGAAGAGTCTGGGTTAGTAAAGAAAGTAAAGATCCAAGCC	7/-9 (-2)	1	11: 98185084-92	IR	Individual 1 (blood)	NC_018923 AC_000144	17: 3088497-514 ^f (18)	-8.13	

Z60	P AAGACACATCTGAGAAACAGGGACGCTCGAGAAGCTAGAGACCACCAGTCTACACGGAGGTCCTCCAGTCCATGAGGTCAAAAAGAGTCCCCAACCCCTC R AAGACACATCTGAGAAACAGGGACGCTCGAGAAGCTAGAGAGGGGGAGTCTACACGGAGGTCCTCCAGTCCATGAGGTCAAAAAGAGTCCCCAACCCCTC D CACCCATATGCAGAGCTCAGCAAGAGGACCTCCAGAGAGGGAGTCCAGAAAGCCATTACAAAGGGTATTTATGAGTGGCAACGTGAAAGTAC	6/-6 (0)	1	10: 13919477-82	FRMD4A	Individual 1 (cancer)	-	14: 68987918-33 (16)	-5.68			
Z2442	P GCCTTATTTGAGAAATTTGCAAAAGCGGTAAT-CATAT-ATTTACCCCTGTATTATAATAATATATTTTCTCTTCTCCTGAGTGTGATGTGCTGCAACT R GCCTTATTTGAGAAATTTGCAAAAGCGGTAATAATATATTTTACCCCTGTATTATAATAATATATTTTCTCTTCTCCTGAGTGTGATGTGCTGCAACT D GGCTAAGAATAGTTTACCATTCACTTGGTAAATATATTTTCTTTTATTTCTGGACCATAAGTGTCTTTTCTTCCATCATTAGGTTATTACAAAT	8/-6 (2)	1	3: 93865324-9	IR	Individual 3 (cancer)	-	2: 198742290-307 ^f (18)	-5.15			
Z422	P GGTCAATTTGATCCTTGGCTCACTGGCATCTCTGTAGATTTTTCATGTATACAATCTTCAATC-TGATGTGCAAGGTAATCCATCTTGCAAAAGGATTTGATG R GGTCAATTTGATCCTTGGCTCACTGGCATCTCTGTAGATTTTTCATGTATACAATCTTCAATCATCAGATTGAAGGTAATCCATCTTGCAAAAGGATTTGATG D ACCCAGCCAGCTTCTTCTCACTGTCAATTTTACCATAGAAAACAGGACTCCAAAATCATCAGATTGAAGGAAAGATCACACAAGGAATATAAGTTGC	9/-8 (1)	1	6: 29788849-56	IR	Individual 1 (cancer)	AC245553	2: 128624973-89 ^f (17)	-4.73			
Z287	P TCTTTTCTCTCTAGCCTTTTCTAAATGTAGGTTAATCAATACCAAGTTGAAATGTGAAGTGGCTTAAATTTTTCACAAATATTCAATAACACAT R TCTTTTCTCTCTAGCCTTTTCTAAATGTAGGTTAATCAACATGTGAATTTGAAATGTGAAGTGGCTTAAATTTTTCACAAATATTCAATAACACAT D TTAGGAGAACTAATATAATGCTATTACACATTTTATCAACATGTGAATTTGAAATATACCATGAAAATTTCTGCTCTTCTGAGCTGACCTTTAATTG	8/-8 (0)	1	20: 7175140-7	IR	Individual 1 (cancer)	NC_018932 AC_000153	15: 37749877-94 (18)	-4.47			
b) Class 2 SPDIR events												
Z317	P CATTTCACAGGTGAGAACTGAGGTTCCGGGCTGTGAGAAAGACTTCTCTTAAAACAAGTCTTCTGACTTCAAGGACAGTATTCTTTTCACTACCCAAACC R CATTTCACAGGTGAGAACTGAGGTTCCGGGCTGTGAGAAAGACTTCTCTTAAAACAAGTCTTCTGACTTCAAGGACAGTATTCTTTTCACTACCCAAACC D AGGGTTGGGTAGTGAAGAATACTGTCTTGAATGTCAGAAAGACTTCTCTTAAAACAAGTCTTCTGACTTCAAGGACAGTATTCTTTTCACTACCCAAACC	8/-8 (0)	1	3: 31871027-34	OSBPL10	Individual 1 (cancer)	-	3: 31871014-47 ^f (34)	-17.62	-17.62	-35.24	Microinversion.
Z2579	P CCTGGGATCTTTTACAGCCAAAGTGGGCGGCTGTG-TGGGCACTGAGTTTCCCG-----TCACTGCCAGTGTCCAGCACAGCCTGGAGACTCCACAGC R CCTGGGATCTTTTACAGCCAAAGTGGGCGGCTGTG-TGGGCACTGAGTTTCCCG-----TCACTGCCAGTGTCCAGCACAGCCTGGAGACTCCACAGC D TGGCAGCACCATGGGCTGGGAGTCTCCAGGCTGTG-TGGGCACTGAGTTTCCCG-----TCACTGCCAGTGTCCAGCACAGCCTGGGCTGTGAAAGAA	25/-19 (6)	1	6: 41397918-36	IR	Individual 3 (cancer)	-	6: 41397917-57 ^f (41)	-23.37	-7.64	31.01	Microinversion (misannealed at right MH, resulting in a total net DNA gain).
Z2949	P TCTGGCTCGTGGTGGCCTTACAGCAATGGTGCAGGGACTGCTGTGGGGCTGGGTGAGGGTGACGGCTGAGGAGAGTGGTGGCCCTAGGAGCCCTCACCAGCAAG R TCTGGCTCGTGGTGGCCTTACAGCAATGGTGCAGGGACTGCTGTGGGGCTGGGTGAGGGTGACGGCTGAGGAGAGTGGTGGCCCTAGGAGCCCTCACCAGCAAG D AGTCATTTCTTCCAGAGTCTCATGGTGCAGGGACTGCTGTGGGGCTGGGTGAGGGTGACGGCTGAGGAGAGTGGTGGCCCTAGGAGCCCTCACCAGCAAG	6/-12 (-6)	1	7: 76634269-80	UPK3B	Individual 3 (blood)	-	1: 36582933-50 ^f (18)	-18.25	-12.33	-30.61	
Z457	P AAATGACCTTTTACCAGATAGTCTGACTGCTGGGAGGTGGTGGGCGTGCATGGAGAGGTCCTGGGAGTTGAGTGAAGAAGCTGTGTC R AAATGACCTTTTACCAGATAGTCTGACTGCTGGGAGGTGGTGGGCGTGCATGGAGAGGTCCTGGGAGTTGAGTGAAGAAGCTGTGTC D CCTAGTCTTTTGGCCGTATGATTATGTAGGTTGAGGTGGTGGGCGTGCATGGAGAGGTCCTGGGAGTTGAGTGAAGAAGCTGTGTC	9/-5 (4)	1	7: 36200288-92	EEPDI	Individual 1 (cancer)	-	15: 88587801-25 ^f (25)	-20.83	-9.77	-30.60	
Z2340	P TTGCTTACACAAATGAACTACAGGCTGTAGCTCACATGAAAGACTACAGCTCATCTGTGTGTGACAAATGGCAGGATTTTGAAGGCTGAAACATGT R TTGCTTACACAAATGAACTACAGGCTGTAGCTCACATGAAAGACTACAGCTCATCTGTGTGTGACAAATGGCAGGATTTTGAAGGCTGAAACATGT D CCATTTGTGACAAACAGATAGGCTGTAGCTCACATGAAAGACTACAGCTCATCTGTGTGTGACAAATGGCAGGATTTTGAAGGCTGAAACATGT	7/-7 (0)	2	19: 56505148-54	IR (between NLRP8 and NLRP5)	Individual 3 (cancer) Individual 3 (blood)	-	19: 56505136-66 ^f (31)	-14.57	-14.57	-29.14	Microinversion.

Z1099	P ATTACTAGTTTTAGCAATTTTAAAGCCCTATGTGATACAAATTTCTAACAGCAATTACAGTTTTCTTTTATACAGTCAAATATGTTACAGTATCTGTACTGACTT R ATTACTAGTTTTAGCAATTTTAAAGCCCTATGTGATACAAATTTCTAACAGCAATTACAGTTTT-----ATCCAGTCAAATATGTTACAGTATCTGTACTGACTT D CTAAGGAGAAAATATTCTTAGACTATTTTCATGCTGTAAATCTCTACAGATTTACAGTTTT-----ATCCAGTCAAATTAATGCAAACCCCAATGCAAGCATT	3/-8 (-5)	1	3: 158067355-62	<i>RSRC1</i>	Individual 2 (cancer)	NC_018914	14: 57051594-626 (33)	-14.08	-12.74	-26.81	
Z441	P TGCTGACTTTTCCCGGGTACACTTCTCTCATCTCCCTTGGTGGCTGCGACTTTGCCACCAAGTTTCGAGTTTCTCTCCTTTATGTGCACTCTGTGCA R TGCTGACTTTTCCCGGGTACACTTCTCTCATCTCCCTTGGTGGCAAGTCGCAAGCCACCAAGTTTCGAGTTTCTCTCCTTTATGTGCACTCTGTGCA D CTGCACAGAGTGCACATAAAGGAGAAAGAACTCGAAACTTGGTGGCAAGTCGCAAGCCACCAAGGGAGATGAGAGAAGTGTGACCCGGGAAAGTCAAGC	9/-9 (0)	1	6: 148769673-81	<i>SASH1</i>	Individual 1 (cancer)	-	6: 148769664-90 ^f (27)	-13.05	-13.05	-26.10	Microinversion.
Z1405	P AACACAATAATATAAAATAGACCAGTTAATAACCCCAACAATGACTTCTGGTATTCAAGTGAAGAAAGAGAGTCACATGTCTCTCTTAACTCAGAAACTCAAATAG R AACACAATAATATAAAATAGACCAGTTAATAACCCCAACAATGACTTCTGGTATTCAAGT-----GAAGAGTCACATGTCTCTCTTAACTCAGAAACTCAAATAG D AATTGTATTTTCAGAAATATTGACAAAATATCATGTATTTACTTTAAGGTTTTTATTCAAGT-----GAAGAGTCACATGATATAAAAATGATTAAACAGGAAATAACTTG	3/-8 (-5)	1	9: 12398402-9	IR	Individual 2 (cancer)	NC_018920 AC_000141	5: 25966139-58 (20)	-11.44	-14.44	-25.88	
Z1776	P TTCTCCAGTCCAGTCTCGTAGGTGTGTGCTTCCAGCGAGTGTGAGTGGGAGTGGTGGAGCAGGAGCATCTGCTGAGCTGCTCAAAGGGCTCTGGCCCAT R TTCTCCAGTCCAGTCTCGTAGGTGTGTGCTTCCAGCGAGTGTGAGTGGGAGTGGT-----GAGCATCTGCTGAGCTGCTCAAAGGGCTCTGGCCCAT D GGGCGCATGGCCTTGGCCGAGCGGGGCTCTCTCCCTGGAGGTGTGCTGGGAGTGGT-----GAGCATCTGCTGAGCTGCTCAAAGGGCTCTGGCCCAT	5/-10 (-5)	1	20: 37279372-81	824 bp upstream of <i>ARHGAP40</i>	Individual 2 (blood)	AC_000152	17: 81043572-95 (24)	-18.16	-7.63	-25.79	
Z1381	P GTCTCTCGCAGAAGACATACAAAAGAGAGAATGAGGTGGCAGGTGGCATGGTGGCGTGCATGGGCAGCAGGGACTCACGGACACTTTGAGGCAGGCAGATGAGAGAA R GTCTCTCGCAGAAGACATACAAAAGAGAGAATGAGGTGGC-AG-----GGTGGCGTGCATGGGCAGCAGGGACTCACGGACACTTTGAGGCAGGCAGATGAGAGAA D GAGGGCTGGCACTAGTTGCCCTGTTCCAGCGGAGGTGGC-AG-----GGTGGCGTGCATGGGCAGCGGGCTGGGTGAGGGAGGCGGGAGCCTCCCCAGTGAAG	2/-10 (-8)	1	8: 47140066-75	IR (micro- satellite)	Individual 2 (cancer)	NC_018919 AC_000140 X68546	19: 1833714-31 ^f (18)	-7.93	-17.45	-25.38	
Z1591	P ATTCATCATCATTATAAACATTAAAGTATCTGAAATTACACTACCACACATTATTTCACTGATTATATAATACTGGCAAAGGCAGTGCAGGCAATGACTGTGAGCC R ATTCATCATCATTATAAACATTAAAGTATCTGAAATTACACTACC-ACA-----CACTGATTATATAATACTGGCAAAGGCAGTGCAGGCAATGACTGTGAGCC D AAGCAAACCTAATTATTCAAATAGCCCTTACTCTTATACTACC-ACA-----CACTGATTATCCATAAATGCCATAAATTTCTTATTACATGCTGAACAAATA	3/-12 (-9)	2	11: 99117029-40	IR	Individual 2 (blood) Individual 3 (cancer)	-	12: 73699906-27 ^f (22)	-15.48	-9.48	-24.96	
Z247	P TGAATGGCTGTGGACAGGGACTTGGTTGGGGCTTGGTTTTCCCTCTATTAAGTGGTTCATATCAGTACTACTTGGTAAGGCCTCTTGTGAGGGTCCCCAACACCC R TGAATGGCTGTGGACAGGGACTTGGTTGGGGCTTGGTTTTCCCTCTATTAAGTGGG--GA-A--AG--CTACTTGGTAAGGCCTCTTGTGAGGGTCCCCAACACCC D GACCAGGCATGTGAATAAGGTTGGTGTAGTATGGCCCTAAGGTTAAGCAGGTGAGTGGG--GA-A--AG--CTACTTGGTAAGGCCTAGATAAATAAGGCCACATGGGGA	5/-12 (-7)	1	19: 48118848-59	IR	Individual 1 (cancer)	AC_000151	3: 159800150-74 ^f (25)	-5.30	-19.63	-24.93	
Z200	P GGGTCTCGCGTCACTTCCGGGAAGCGCGGACTAATACTACTGGGAGACTACAACCTCCAGTGGCCTTCGCGCCATAAGGGGGGGGACAAGCCCTGAGG R GGGTCTCGCGTCACTTCCGGGAAGCGCGGACTAATACTACTGGGAGTTGTAGTCTCCAGTGGCCTTCGCGCCATAAGGGGGGGGACAAGCCCTGAGG D CCCTCAGGCTTGTCCCGCCCTTATGGCGGAAGGCCTACTGGGAGTTGTAGTCTCCAGTGGTGTAGTTCGCGCTTCCCGAAGTGAAGCGAGGACC	7/-7 (0)	1	16: 28415215-21	229 bp upstream of <i>EIF3CL</i>	Individual 1 (cancer)	-	16: 28415206-30 ^f (25)	-12.45	-12.45	-24.90	Microinversion.
Z96	P GGTGATAGTTTCTTCTTCCAGCAGATTGAAGATCCATGTTCTGACTGCCAGGTTACTTGTGGCCCACTCAGTCAGGTTGCCATTGCTTGTGGTATCTGCCTT R GGTGATAGTTTCTTCTTCCAGCAGATTGAAGATCCATGTTCTGACTGCCAG-----TGTGTGGCCCACTCAGTCAGGTTGCCATTGCTTGTGGTATCTGCCTT D TACCCAGGTGCAGCCACAGGGCCAGCAAAGGACTCTGGAACCTGCCAG-----TGTGTGGCCCACTCAGTCAGGTTGGGAGGCTGCTCAAGGTTGGCAGGCT	6/-12 (-6)	2	11: 19083634-45	IR	Individual 1 (cancer) Individual 1 (blood)	NC_018922 AC_000143	10: 80961248-65 (18)	-9.06	-14.74	-23.80	

Z2131	P ACACCATACCCTGTCAACTTTCTGGCTTTGATACTGTAGTATCATTATGTA R ACACCATACCCTGTCAACTTTCTGGCTTTGATACTGTAGTATCATTATGTA D AAGACTCAGAAAAAAGAGAAGTAAACAAACAAATACCTATATAATTATGTA	5/-13 (-8)	1	11: 95268428-40	IR	Individual 3 (cancer)	-	1: 244108431-56 (26)	-8.31	-11.26	-19.57	
Z881	P ATTTACAGAGAAGCATGGTCTGGGCGCCACAGACAGG R ATTTACAGAGAAGCATGGTCTGGGCGCCACAGACAGG D ATAAGAGAGATCAGAGGGGAAGGAGGCGCTGTAAGTGA	21/-13 (8)	1	10: 70303297-309	IR	Individual 2 (cancer)	-	12: 85072859-93 ^f (35)	-3.02	-16.52	-19.54	
Z2990	P CTATTCTTAGAAACAACATATAAGGCTGAGACGCGCAGT R CTATTCTTAGAAACAACATATAAGGCTGAGACGCGCAGT D GTACCACAAATTTGAACTCATAAGAACAGAGAATGAT	6/-15 (-9)	1	8: 26072688-702	PPP2R2A	Individual 3 (blood)	-	X: 33511392-408 ^f (17)	-10.62	-8.79	-19.41	
Z26	P CTGGAGGATCAGGGCCCGTGGATCCCGCCAGACCTGCT R CTGGAGGATCAGGGCCCGTGGATCCCGCCAGACCTGCT D TGACACAGTCACCACTGCACCCACACCGCCTCCTGCT	6/-14 (-8)	1	1: 156910895-108	ARHGEF11	Individual 1 (cancer)	-	16: 3820858-75 ^f (18)	-4.69	-14.50	-19.19	
Z1281	P AGGTGGCTGCTGTAAGTGTGAACAGGAGCTTATATTGG R AGGTGGCTGCTGTAAGTGTGAACAGGAGCTTATATTGG D TTCAGCTCAGCAATGGTGAAGCCTGTGTGGCTCAGGCC	6/-2 (4)	1	6: 99576960-1	IR	Individual 2 (cancer)	-	7: 149639109-29 ^f 7: 153851964-84 (21)	-10.13	-8.91	-19.04	Two possible donor segments with the same thermodynamic properties.
Z1696	P ATAGAGCAGCCTATTTAGAATATCCGGTATAACATTG R ATAGAGCAGCCTATTTAGAATATCCGGTATAACATTG D AATTTTGAACAATCAGTGCAGATGCACGCGCATGACCT	1/-8 (-7)	1	14: 72625570-7	RGS6	Individual 2 (blood)	NC_018925 AC_000146	20: 44002093-107 (15)	-5.90	-12.78	-18.68	
Z999	P GGAGTTGCTCCTGGTTTGTATTCTGCTACTACTGGCG R GGAGTTGCTCCTGGTTTGTATTCTGCTACTACTGGCG D TGACATTCTCTCATTCTGAGATACATACTGACAATAT	3/-7 (-4)	1	19: 53980690-6	IR	Individual 2 (cancer)	AC_000151	17: 16595357-73 ^f (17)	-12.19	-6.48	-18.67	
Z1792	P AGCTGTGATATTCAGTAAGTATAGGTATTAATACATT R AGCTGTGATATTCAGTAAGTATAGGTATTAATACATT D ATAAGTTCAACTTAAATCAAAAGTCTGAAATACATT	9/-14 (-5)	2	21: 10112431-44	IR	Individual 2 (blood) Individual 3 (cancer)	NT_187506	20: 62425127-59 (33)	-9.57	-9.03	-18.60	
Z332	P AATTTTATTGTGTGATAAGAAGAATGAATTTGTAATAG R AATTTTATTGTGTGATAAGAAGAATGAATTTGTAATAG D CTTTCTCGAACCAAGTAAAGAGTTATCTGATGGGTACAT	2/-8 (-6)	1	3: 118013112-19	IR	Individual 1 (cancer)	NC_018914	3: 28144625-40 ^f X: 90634621-36 (16)	-5.56	-13.00	-18.56	Two possible donor molecules with the same thermodynamic properties.

Z2539	P AGGTTATGGAATTTGAAGGCTGGGAAAGCATGTGGGAAATCAGAGGCCCTCCCTCGCTGTAGGGAGGAAGTATCCAGGCTGTGGAGAGGACTCTAGA R AGGTTATGGAATTTGAAGGCTGGGAAAGCATGTGGGAAATCAGAGGCCCTCCCTACAGCGAGGGAGGAAGTATCCAGGCTGTGGAGAGGACTCTAGA D GGCTCTAGTGTGCTCATCTCTAGAGTCTCTCCACAGCCTGGATCACTTCTCCCTACAGCGAGGGAGGGCCTCTGATTTCCACATGCTTTCCAGCC	6/-6 (0)	1	5: 177386541-6	IR	Individual 3 (cancer)	-	5: 177386534-53 ^f (20)	-9.20	-9.20	-18.40	Microinversion.
Z2200	P CCTTTGCAAAATTTTAACTCAACTTACCTTGTACTCTTTGCTCTTACTTCAAATCAGAGCAATAAGAAAAGGATTGACCCAGCAACATATTATTAATCAAACACCATATAC R CCTTTGCAAAATTTTAACTCAACTTACCTTGTACTCTTTGCTCTT-----TCAGTGCATAAGAAAAGGATTGACCCAGCAACATATTATTAATCAAACACCATATAC TGAACCTGTTTTAATGTGCTGTGAAGGGTTTTTAAATTTGCTCTT-----TCAGTGCATAAGAAAAGGATTGATATACAGCAAAATAAACATTTGCTCTTTCTAAATGAGTGAATA	5/-13 (-8)	1	14: 29849721-33	IR	Individual 3 (cancer)	-	1: 241857655-73 ^f (19)	-8.35	-9.98	-18.33	
Z955	P ACAGAGAGCCTTCTCCAAGTGGTGCACAGCAGACCCCTGCTGTAGCAGCAAGGAGGAAAAGAACTCACAATTCGAACTCAATCTTTATTGCAGCTGAA R ACAGAGAGCCTTCTCCAAGTGGTGCACAGCAGACCCCTGATCTGT-----GCAGGAGGAAAAGAACTCACAATTCGAACTCAATCTTTATTGCAGCTGAA D CTCCGTAAGATGCTCAAATCCTCCCCAGCCACCCCTGATCTGT-----GCAGGCTTCAGGAGCCAGATATGGATTCTAGGTAGAAACCTGTGTCCCTGATG	6/-13 (-7)	1	17: 12895670-82	IR (between <i>ELAC2</i> and <i>ARHGAP44</i>)	Individual 2 (cancer)	AC_000149	7: 30204762-77 ^f (16)	-12.75	-5.41	-18.16	
Z2501	P GCGGGAGAGGCTGCTCAGGGCAGCTCAGCCAGGAGCAGAATCAGCTCTCATGAGCCACCAGTCTCCTGACACCTCTGCCCTTTTCCGCCAAAACACCC R GCGGGAGAGGCTGCTCAGGGCAGCTCAGCCAGGAGCAGAATCAGCTCTCATGAG-----TCCTCTGACACCTCTGCCCTTTTCCGCCAAAACACCC D CCACAGAGCCTTCTCCGGAGCCCGCCACCCCGGGCTCTTCTCTCTCTGAG-----TCCTCTGCTGCGTGTGCGGGGCCCGCTCGGGAGGCCTTGG	5/-13 (-8)	2	5: 1280938-50	<i>TERT</i>	Individual 3 (cancer) Individual 3 (blood)	NC_018916 AC_000137	6: 170451737-51 (15)	-9.82	-8.07	-17.89	
Z1441	P CCAAATAAATGAAATAGAGTTGAAAAGCAGACAGCAAGCTGTAGGCCTGGCAAGGCTTCAAGAATATTACAGTAACATCTGATATGCAAGTACTATTACAAC R CCAAATAAATGAAATAGAGTTGAAAAGCAGACAGCAAGCTGTAGGCCTGGCAAGGCTTCAAGAATATTACAGTAACATCTGATATGCAAGTACTATTACAAC D CGGGAGCCGTGGAGATGGAGAGTGTGAAACAGC-----C--TACGCCTGGCCGCGCCCTTGGGCTTCTGCTTGCAGACCTGCCTGGAGGTTCTCCCTGGGG	4/-9 (-5)	1	9: 41733375-83 9: 61945450-8 9: 67643060-8 ^f 12: 37575264-72 ^f	ncRNA (GenBank XR_432396)	Individual 2 (cancer)	NC_000009 NC_018920 AC_000141	12: 50369456-71 (16)	-4.78	-12.83	-17.61	The reference sequence contains five identical recipient DNA segments (on two different chromosomes).
Z1897	P AAGCACTCTGAGTAGGAGTTTAAAAGTGGTCTATTGTTCTGATGCTAATTATTACAAATTGTCAGTCTTGACAGCAGATGCTTTGCTTGCTGTTTTCC R AAGCACTCTGAGTAGGAGTTTAAAAGTGGTCTATTGTTCTGATGATAATT-----AAATTGTCAGTCTTGACAGCAGATGCTTTGCTTGCTGTTTTCC1 D ACAATATCATGTGGTATGCAGAAGCTAGCTTGCAAAAGCTGATGATAATT-----AAATTGTAATTTTTCTCAAGCTTTGTGAGCCAGTTGTATACACAGCC5	6/-11 (-5)	2	4: 135545821-31	IR	Individual 2 (blood) Individual 3 (cancer)	-	4: 104333011-29 (19)	-11.86	-5.92	-17.60	
Z895	P CAACCTTCAGCTTCTGTGGATGCTTTTATAGATATAGTTTCTGCAAGCTTTAACCCTAGGTTCTGAATAGTGTAGTCTTTTTTTTGTAGTATGGTATACTGCATTGCAAAAT R CAACCTTCAGCTTCTGTGGATGCTTTTATAGATATAGTTTCTGCA-----A----TAGGTACTGAATAGTGTAGTCTTTTTTTTGTAGTATGGTATACTGCATTGCAAAAT D TGATAAAAAGAAAATCTGTGTTTCTCAAATGAGGCTATCATCTGCA-----A----TAGGTACTGAATCAAGAGAGAGAGAGAGCAAAGATACATGTATTAATTACTA	7/-16 (-9)	1	11: 19426100-15	<i>NAV2</i>	Individual 2 (cancer)	AC_000143	2: 144348530-48 ^f (19)	-6.71	-10.82	-17.53	
Z1267	P GCATGTTTTGAGATCTAAAACAGTTAGTGTCTGTAACTGAAAATAAGTAATAAGGTGTTTTTATATCTCTAAGCCAATATCCAACCTTACACTTTTATTCTACA R GCATGTTTTGAGATCTAAAACAGTTAGTGTCTGTAACTGAAAATAAGTAATAAGGTGTTTT-----TAAGCCAATATCCAACCTTACACTTTTATTCTACA D AGCCCATTTGAACTAGATATTATAGACTTCTGAATTTCTAGGACTATAAGATAACTAGGTGTTTT-----TAAGCCAATTAATTTATGTTAATTTGTCATAGCATC	5/-13 (-8)	1	6: 65430901-13	<i>EYS</i>	Individual 2 (cancer)	NC_018917 AC_000138	X: 116590548-64 ^f (19)	-9.44	-7.99	-17.43	
Z2561	P CAATCTGCTTCTGGCTAGTGTCTTGGGAGTCCATTG-GTCTATATGTGGACAGATTTTCTTAAATGGACTCAGAAGAAAACCTGATCTGAGCTTTC R CAATCTGCTTCTGGCTAGTGTCTTGGGAGTCCATTGAGAAAATCTGTCCACATATAGACC-AAATGGACTCAGAAGAAAACCTGATCTGAGCTTTC D TTTAGAAAGCTCAGATCAGTGTCTTCTGAGTCCATTGAGAAAATCTGTCCACATATAGACC-AAATGGACTCCCAAGGACACTAGCCAGAAAGCAGA	26/-26 (0)	1	6: 18473718-43	8.4 kbp up- stream: <i>RNF144B</i>	Individual 3 (cancer)	-	6: 18473710-51 ^f (42)	-8.67	-8.67	-17.34	Microinversion.

Z2371	P AGGGGTGCAGCTAACACCCCTCACAAATGCACAAGACAGCCCTCACAAATAAAAGTCCACACAGGCCAAATGTTAACAGTACTGAGGTTGAGAAACCATGCATTAATGA R AGGGGTGCAGCTAACACCCCTCACAAATGCACAAGACAGCCCTCACAAATAAAAG-----GCC-AAATGTTAACAGTACTGAGGTTGAGAAACCATGCATTAATGA D TCTTGAACCAAGTTTTCAACAAGCACAGTATCATGTTCCCTCAAGGAGAAAAG-----GCC-AAATGTTTCAGAGTAATACCTCTGCCACCTCTTCATTGTTCA	4/-13 (-9)	1	2: 218383163-75	IR	Individual 3 (cancer)	-	4: 22347255-71 (17)	-4.29	-12.87	-17.16
Z2707	P AGCCAGCAACTGCAGTCTAGTACTGGGAGGCTGAGGTGGGAGGATCCTCTGAGCGTAGGAGACTGAGGCTGCAGTG-AGCTGTGATTGGCAACACTGCACCTCCAGCC R AGCCAGCAACTGCAGTCTAGTACTGGGAGGCTGAGGTGGGAGGATCCTCTGAGCGTAGGAGACT-----GTGGAGCTGTGATTGGCAACACTGCACCTCCAGCC D TGGACTGAAAAGACCAGGTTGGGAGAGGGAGGAGAGATCTTCGCCCGCCCTTTCGT-GGAGAC-----GTGGAGCTGTAGCCTCGTGTCTCACTGCCTGTCTC	4/-13 (-9)	1	12: 65121148-60	GNS	Individual 3 (blood)	AC_000144	16: 72986546-63 ^f (18)	-10.31	-6.48	-16.79
Z2523	P AATCTAAGTTTCTTTTGTGTTGTTTTAAAGGAAGGATGCAGTTCCTCTGTTAGGATTTTGAATGGTCCCTCTGGCCCTGTCTCGGAAATGAACATAAAGTGGATT R AATCTAAGTTTCTTTTGTGTTGTTTTAAAGGAAGGAT-----TCTCCGTTAGGATTTTGAATGGTCCCTCTGGCCCTGTCTCGGAAATGAACATAAAGTGGATT D CCATATGGTGGTTTTGGAGTGAGAAAAGGAAGGA-----TCTCCGTTAG-ATTAGAAAATAAATAACAATGTGTTCTAAAACCTTGTATCAATGATAAGACT	5/-11 (-6)	1	5: 111142435-45	NREP	Individual 3 (cancer)	-	12: 18541036-58 ^f (23)	-5.61	-11.17	-16.78
Z674	P CCTCTCTGTGACAGCTCCAGCAGGAGCAGAGTCTCCCTGGAAGCCGGGAGTCCACAGTCTCCTGCAATGAAGCTCTTTGTCTGCGTCCCTCTAACAGCGGCAGT R CCTCTCTGTGACAGCTCCAGCAGGAGCAGAGTCTCCCTGGAAGCCGGGAGTCCACAGT-----CTGCCGTAAGCTCTTTGTCTGCGTCCCTCTAACAGCGGCAGT D TCAAGTATCCTCCACCTCGGCCCTCCCAAGTGTGAGATTACAGGTGTGAGTCC-----CTGCCGTAAGCTGCTATGAATATTTAGTAGGAGACCTTGTGT	5/-14 (-9)	1	22: 49706499-512	IR	Individual 1 (blood)	NC_018933 AC_000154	20: 35895099-116 (18)	-6.46	-10.26	-16.72
Z2609	P TTTGTACCCATTAATCAAATATTTTTATCTCCCTTCCAGCCTCTGGTAGCTACCAATCTACTCTCTATCTTCATGAGATCCAGGTTTTAAGCTCCACATGTG R TTTGTACCCATTAATCAAATATTTTTATCTCCCTTCCAGCCTCTGGTAGCTACCAATCT-----CTATCTCCATGAGATCCAGGTTTTAAGCTCCACATGTG D GCTCCCTCAGCTTCTGGTACTGCAGCATTCTTTGATTTGTGGCCACCTCATTCCAATCT-----CTATCTCCATGGTAACGTTATTACCTTCTCTCTGCGCC	0/-5 (-5)	1	X: 3739716-20	IR	Individual 3 (cancer)	AC207444 AK125688	12: 81231231-48 ^f (18)	-7.11	-9.48	-16.59
Z209	P AAAAACCCGTGTCTGAAATCAACATCCTCAGGGTCTGGAAAAATAGTATCGACAGAAAAGTGTGAAATATGAAATAGAAAACAAAACAAAACCTCTACGACACC R AAAAACCCGTGTCTGAAATCAACATCCTCAGGGTCTGG-----A-TGTCGACAGAAAAGTGTGAAATATGAAATAGAAAACAAAACAAAACCTCTACGACACC D CGGGACGTTGGTGACCGTTAGACTTGTCTGGGGTCTGG-----A-TGTCGACACATGGTGTGCTTGGGGCCAGAGTGCAGGAAATGGAAACTGGGTCTG	3/-12 (-9)	1	17: 3587922-33	P2RX5	Individual 1 (cancer)	AF168787	19: 17817487-502 (16)	-11.23	-5.23	-16.46
Z2466	P GTAGAGATAAATATCACGTAGCATATGCTAAGGTGATTTGCAAGATCTATCTATCTTAAAGACTGTAAGTCTAATTTAATAGCAATACAGACATTTAGT R GTAGAGATAAATATCACGTAGCATATGCTAAGGTGATTTGCAAGAT-----TCTATCTTAAAGACTGTAAGTCTAATTTAATAGCAATACAGACATTTAGT D AAATACCATAAACAATTTTTTGAAGTCTGTTGATTTGCAAGAT-----TCTATCTTAAAGACTGTAAGTCTAATTTAATAGCAATACAGACATTTAGT	6/-11 (-5)	1	4: 52913027-37	IR	Individual 3 (cancer)	AC_000136	9: 8643070-87 ^f (18)	-12.08	-4.17	-16.25
Z582	P TCTGTGCTGGCTATTTCAATTTAACAATAATG---T---CCTCCTGGTTCATCCAGGTTGTCAAAATGACAGGATTTCTCTTTTTGAGGCTGAATAGTA R TCTGTGCTGGCTATTTCAATTTAACAATAATG---T---CCTCCTGGTTCATCCAGGTTGTCAAAATGACAGGATTTCTCTTTTTGAGGCTGAATAGTA D AGAATTCAATAAATGCTTTTGAATTAATG---T---CCTCCTAGATGGAATCTAGATGGGTTCCACCACAGTAAATAATACACTATCTCTTACCA	6/-1 (5)	1	10: 129275154	IR	Individual 1 (blood)	NC_018921 AC_000142	18: 21902793-813 (21)	-9.33	-6.77	-16.10
Z2960	P TTCAGTTATTTTCCCATTTTCAGAGTGGAGGAGTTCAAGAATGAACATGGCCAAATAGCCAAAGTCTCCAGAACAGGAGGATAGATCCGGAGAGAAATCTTTGG R TTCAGTTATTTTCCCATTTTCAGAGTGGAGGAGTTCAAGAATGAACATGGCCAAATAG-----CCAGAACAGGAGGATAGATCCGGAGAGAAATCTTTGG D GACCACTGCTTCTGTTCTAAATTTCTTCAGGAGCCTGGAGAAAGTATG-CCAAACAG-----CCAGAACATTAGCATTCTTTCTGTTAACCCCAAGTTT	4/-13 (-9)	1	7: 131481377-89	IR	Individual 3 (blood)	-	10: 61389784-801 (18)	-8.22	-7.84	-16.06

Z2099	P ATTTTTCAGACCTGTCACCTTGGCGGCGGCAGTGACACA-CTGTGGGAACGGGGA---CCACACACTTAAGGAGTTTTTCATAAATAGCTTTATTAATAGT R ATTTTTCAGACCTGTCACCTTGGCGGCGGCAGTGACAGGCTGAAAATCAGCAATCCTAAACAAATTAAGGAGTTTTTCATAAATAGCTTTATTAATAGT D GTTCCACAGTGTGTCACCTGCCCGCCCAAGTGACAGGCTGAAAATCAGCAATCCTAAACAAATTAAGGCATCAATTCCTCCTCCCAACCAAGGCC	29/-25 (4)	1	10: 118596593-617	<i>HSPA12A</i>	Individual 3 (cancer)	-	10: 118596534-75 ^f (42)	-7.68	-8.36	-16.04	Donor DNA locus very close to recombinant site.
Z1818	P TTTAAGGTACAAACAGCACTTCATACAATATCTCATGAGTATTAATAGTACATTACAGGGAAGATTTTCACGCTGTGAGTCTTGTCTAACATATCCAGTTATTACAG R TTTAAGGTACAAACAGCACTTCATACAATATCTCATGAGTATTAATAGTAC-----GAAGACTTTCACGCTGTGAGTCTTGTCTAACATATCCAGTTATTACAG D TGAGGAGAGTGGGATCTTAGCTGAGACAGTGAATAAGTAAACATAGTAC-----GAAGACTTTCACGAGCAGCTCACTAAGACAGAAATATCTTTCCTCT	6/-14 (-8)	1	4: 3174498-511	<i>HTT</i>	Individual 2 (blood)	-	1: 204934783-800 (18)	-4.33	-11.66	-15.99	
Z2901	P GGAGAGAAGAGTCAAAACAATAAATCAGAA-----GAGGAGACATTATACTAATGCAACAGAAATTAAGATCATAAGAGATTTCTATTTAAGAAAGT R GGAGAGAAGAGTCAAAACAATAAATCAGAAATAGAAAGGAGACATTATACTAATGCAACAGAAATTAAGATCATAAGAGATTTCTATTTAAGAAAGT D ATAAGAGAGTATCAAGGGAGAAATCAGAAATAGAAAGGAGACAGTTTGAACAATGCCTGTGGCTTACATCCCTAGAGTAGACCTGAAG	6/0 (6)	1	5: 11937895/6	IR	Individual 3 (blood)	NC_018916	3: 183761254-74 ^f (21)	-7.94	-7.92	-15.86	
Z781	P TCTGCCAACCTACTTTTGGTTCACACTCCCTCCCGCAGCAGAAATACCAATACACAGTTACCTTCTTTGTCTGTGTACATCCACACCAAGAGAGTGTTC R TCTGCCAACCTACTTTTGGTTCACACTCCCTCCCGCAGCAGAAATACCAATACACAGTTACCTT-----GTCTAAGTGTACATCCACACCAAGAGAGTGTTC D TATCACATGAATTCATCTACTGATCTCCAATTCAAATTCAGGACTATAGAGTCTGCTTACCTT-----GTCTAAGTGTACATCTCCTTCTTCTACACTGATA	5/-10 (-5)	2	9: 104864723	IR	Individual 1 (blood) Individual 3 (blood)	NC_018920	12: 13511306-22 (17)	-4.11	-11.72	-15.83	
Z2600	P TCCCTGACCCCTTCTAAAGCTTCTTCTTAGCTTCTGCTGCCCTCCAGGTAAGCACTCCACAGC-----CTGTGGAAGCTCTGTGGGTATAGTCTGTCT R TCCCTGACCCCTTCTAAAGCTTCTTCTTAGCTTCTGCTGCCCTCCAGGTAAGCACTCCACAGCACAGAGCTGTGGAAGCTCTGTGGGTATAGTCTGTCT D ATTTGTTGTGATGTGCTGCTGTTGACTGATTGCCATGTTGTATGCTGTGTAATCCTCACAGCACAGAGCTGTGGAAGCTCTGTGGGTATAGTCTGTCT	6/0 (6)	1	8: 10704458/9	7.1 kbp up- stream: <i>PINX1</i>	Individual 3 (cancer)	NC_018919	3: 51594027-45 (19)	-7.42	-8.31	-15.73	
Z249	P AGAGGGAGAAGGGGACGGGAGGCATTCCGGCTTCTGTCTTAGGCTTACTGCTCTGCTACCTGATGGAGCAGAGTCCCCACCTGCCCTTATCGGA R AGAGGGAGAAGGGGACGGGAGGCATTCCGGCTTCTGTCTTAGGCTTACTGCTCTGCTACCTGATGGAGCAGAGTCCCCACCTGCCCTTATCGGA D GTGCTGTGTCGGGCTAACGCTGCTTTTTCGATAAGGGGAGGTTGGGGACTGCTGCTT-----AGCAGCAGGTCAGTCAAGGCCCTAAGACAGGA	9/-12 (-3)	1	19: 55864831-42	216 bp down- stream of <i>COX6B1</i>	Individual 1 (cancer)	-	19: 55864826-47 ^f (22)	-4.69	-10.97	-15.66	Microinversion (misannealed at left MH, resulting in a net deletion).
Z1302	P ACAAAAATAAATAAAGAAATGAGCAAAAGCTTACCTGACGATGAGACACCAAGCAGTGCACAAAATATTCAAATTTTGGTATCCCAAGTCAAAGAGATAATA R ACAAAAATAAATAAAGAAATGAGCAAAAGCTTACCTGACGATGAGACACCAAGCAGTGCACAAAATATTCAAATTTTGGTATCCCAAGTCAAAGAGATAATA D GAAAAGCAAGTTCATTGCCTGCTTTTGGAGCATCTTTCTAAAAATACACCA-----TGACAAA-TATTGGAGTTGGTAATTCATGGGGTAAACACCCCAAGGA	0/-4 (-4)	1	6: 159760516-9	IR	Individual 2 (cancer)	AC_000138	14: 81007869-85 ^f (17)	-6.61	-15.64	-15.64	
Z1644	P TTTCTGTATATGTGCACTACATTCATTTTTTGGTGTGACAAAGTGTATTAAGGACCAAAACATTCACCTTGTCTAATGAAAGTTGACATTTCTAGTCAATCAATA R TTTCTGTATATGTGCACTACATTCATTTTTTGGTGTGACAAAGTGTATTAAGGACCAAAACATTCACCTTGTCTAATGAAAGTTGACATTTCTAGTCAATCAATA D GTCAGTATTTTCATCGATATCTCATGTCATGGCCCTCCCTCTTCAAGTGTAT-----AAACATTCACCTTGTCTAATGAAAGTTGACATTTCTAGTCAATCAATA	5/-13 (-8)	1	12: 58482412-24	IR	Individual 2 (blood)	NC_018923 AC_000144	13: 50490879-96 ^f (18)	-9.36	-6.24	-15.60	
Z924	P ATGAGCAGGACAGCTGATGTGTGGAATGCATATATCAAAAAAGTTTCAACAGACTGTGTATGTTTAAACAGGATTCATATTTCTAAAATACCAACTGTAAAAT R ATGAGCAGGACAGCTGATGTGTGGAATGCATATATCAAAAAAGTTT-----GATGTGTATGTTTAAACAGGATTCATATTTCTAAAATACCAACTGTAAAAT D ATTTCTTTGGCATTTTCTGACTGTGGCTTTTGAATGTTGAGT-----GATGTGTG-TGTTCTGTTTTCAGCTTGGAGAACGCCATCTCTGGAAGAAGCC	3/-8 (-5)	1	12: 81835505-12	<i>PFFIA2</i>	Individual 2 (cancer)	-	11: 9549050-66 (17)	-4.59	-10.86	-15.45	

Z1305	P	TTCCGGGATGAGAAGGAGCACCTGGCCACAGCTGCACAATGGACGCCTGCCTGG AAGGTCTTT GAATGTT ATGA AT ATGA CTACTGAGAGACAGAAGCCAACCAT	7/-15	1	6: 166060276-90	<i>PDE10A</i>	Individual 2 (cancer)	NC_018917	18: 4995923-42 ^f	-6.55	-8.90	-15.45
	R	TTCCGGGATGAGAAGGAGCACCTGGCCACAGCTGCACAATGGACGCCTGCCTGG AAGGTCTTT ----- ATGA ACAT ATGA CTACTGAGAGACAGAAGCCAACCAT	(-8)						(20)			
	D	GGAGATCTCAGAGTATATATTGGGTAAATATAATCATAAATCTTGGGAATAATGAA AAGGACTTT ----- ATGA ACAT ATGA ATAATCAAGAAATGGCATGGGGATCC										
Z279	P	AAGTCATTCTCCAACAGGAATGATACCCATTTACATGTATAACTAACTCTGG GAAGGGG AATACCC AAACAT TTTCGAGAGCTGTTGATGTCATGCCTG	5/-7	1	2: 215743896-102	IR	Individual 1 (cancer)	NC_018913	11: 26541918-37	-10.94	-4.45	-15.39
	R	AAGTCATTCTCCAACAGGAATGATACCCATTTACATGTATAACTAACTCTGG GAAGGGG GGGA-- AAACAT TTTCGAGAGCTGTTGATGTCATGCCTG	(-2)					AC_000134	(20)			
	D	ACCTGGTAGGAATGCATGTAAAAGAAGAGTTCTACTATATCCAAGGAAAAAAT GA AAAGGGGGGA-- AAACAT GGAAATGTGCAGTTACTATCCCTTTT										
Z1933	P	GAAGAGGCTGTCAAGGGGACTTCTTCCAAGTGGGCCAAAGACTCCATCAGGTC GAGTAGTGAC ATGGAA ATCACAG AGCAGGTGGCTCCAAGGATCTGTCCCT	5/-11	1	7: 157739904-14	<i>PTPRN2</i>	Individual 2 (blood)	NC_018918	13: 92315089-105 ^f	-8.37	-6.95	-15.32
	R	GAAGAGGCTGTCAAGGGGACTTCTTCCAAGTGGGCCAAAGACTCCATCAGGTC GAGTAATGAC ----- ATCACAG AGCAGGTGGCTCCAAGGATCTGTCCCT	(-6)						(17)			
	D	ATAGCAGCTGTAGCCAAGCTGTGTTTGAAAGTCATTGGATGACCTAAGCTTGAAG GAGTAATGAC ----- ATCACAG GTAGTATATGTTTGGAGAGAGTGCCA										
Z2697	P	TAACAGGCTTGGTGTGTGCACCTGTAGTCC GCTAC TGGGGCAATA CCCTACAA ATGACTCTGTAACCTTATTAGGGGCAGTAGAAAATGGTGTACTCTCT	5/-12	1	11: 119030088-99	<i>ABCG4</i>	Individual 3 (blood)	NC_018922	13: 36838429-49	-3.95	-11.32	-15.27
	R	TAACAGGCTTGGTGTGTGCACCTGTAGTCC GCTAC AGAGT----- CCCTACAA ATGACTCTGTAACCTTATTAGGGGCAGTAGAAAATGGTGTACTCTCT	(-7)					AC_000143	(21)			
	D	TTCAGAAGTTTTTAAAAGAAGTTGATCAACATGG GCTAC AGAGT----- CCCTACAA - TGAGA AGGATTTAGATGGAAAAGTAGAGTAGAAAGCTATATACTG										
Z840	P	TTTTCAAGTGTATGTTGTTAAT TACAG CTACCAT ATTGTGCAGTAGAAC CTTGAATTTATTACTCCTGTTTGGCTGAAATTTGTGTTCTTTGACCAATATCT	6/-13	1	1: 57979428-40	IR	Individual 2 (cancer)	-	3: 69981794-812	-3.26	-11.92	-15.18
	R	TTTTCAAGTGTATGTTGTTAAT TACAG ----- ATTGTGCAGTAGAAC CTTGAATTTATTACTCCTGTTTGGCTGAAATTTGTGTTCTTTGACCAATATCT	(-7)						(19)			
	D	TTACTTTTGTAAAGGACAGCTTT TACAG ----- ATTGTGCAGTA - AAC AAGATTATATGTCCAAGGATATATGTTCTGGCTTTGTTTCTTTTGTGGTAAT										
Z2802	P	AACAAGGCTTATAAAATAAATAGGGTGATGATGAGAATTTAAAATGAA CAGGAAT TACGGCAAG ATGAGGAA ACGAGTCAAACTGTTTTTCAGAAGGAATAAGC	4/-9	1	2: 205790289-97	<i>PARD3B</i>	Individual 3 (blood)	AC_000134	9: 101848598-616	-7.11	-8.07	-15.18
	R	AACAAGGCTTATAAAATAAATAGGGTGATGATGAGAATTTAAAATGAA CAGGAAT --CG--TA- ATGAGGAA ACGAGTCAAACTGTTTTTCAGAAGGAATAAGC	(-5)						(19)			
	D	TTGTTTTTGTCTTCTTCCCTAACTTAAACAAGAACGACGAAGTTGGTGG CAGGAAT --CG--TA- ATGAGGAA GTGAGCATTCTCTCTTTGTTGGAGAGTGTACT										

Total 94 different SPDIR events identified.

^a P: ancestral/parental DNA sequence; R: recombinant (microindel-containing) DNA sequence; D: donor DNA sequence of segment used for double IR; bold pink: simple or extended microhomologies as determined by ΔG^0_{\min} ; highlighted yellow: illegitimate recombination sites.

^b Nucleotides inserted/nucleotides deleted. ^c Nucleotide positions, including all MH annealing segments as determined by ΔG^0_{\min} , in GRCh37/hg19.

^d Simple or extended microhomology. ^e Intergenic region. ^f Reverse complement. ^g The donor patch aligned is from chromosome 15 (chromosome 3 not shown). ^h The two donor patch DNA segments from chromosome 7 are identical for the aligned segment. ⁱ The donor patch aligned is from chromosome 3 (not shown for the X chromosome).