



Next-generation sequencing (NGS) is performed to test for the presence of a single nucleotide and/or copy number variants in these genes. When appropriate, reported alterations detected by NGS are confirmed by an independent reference method, such as multiplex ligation-dependent probe amplification (MLPA), polymerase chain reaction (PCR), and/or Sanger sequencing.

Genomic Build: GRCh37 (hg19)

**Gene List** (Greyed boxes are genes also included in the RNA panel.)

<i>ACVR1</i>	<i>CDKN2A</i>	<i>FUBP1</i>	<i>KDM6A</i>	<i>MYB</i>	<i>POLE</i>	<i>SDHA</i>	<i>TCF12</i>
<i>AKT1</i>	<i>CDKN2B</i>	<i>GLI2</i>	<i>KLF4</i>	<i>MYBL1</i>	<i>POLR2A</i>	<i>SDHB</i>	<i>TERT</i> with promoter
<i>AKT2</i>	<i>CDKN2C</i>	<i>GLI3</i>	<i>KMT2B</i>	<i>MYC</i>	<i>POT1</i>	<i>SDHC</i>	<i>TET1</i>
<i>AKT3</i>	<i>CHEK2</i>	<i>GNA11</i>	<i>KMT2C</i>	<i>MYCN</i>	<i>PPM1D</i>	<i>SDHD</i>	<i>TET2</i>
<i>APC</i>	<i>CIC</i>	<i>GNAQ</i>	<i>KMT2D</i>	<i>NF1</i>	<i>PRKAR1A</i>	<i>SETD2</i>	<i>TP53</i>
<i>ARID1A</i>	<i>CTDNEP1</i>	<i>GNAS</i>	<i>KRAS</i>	<i>NF2</i>	<i>PTCH1</i>	<i>SHH</i>	<i>TPTE2</i>
<i>ARID2</i>	<i>CTNNB1</i>	<i>GPS2</i>	<i>LDB1</i>	<i>NOTCH1</i>	<i>PTCH2</i>	<i>SHOC2</i>	<i>TRAF7</i>
<i>ATM</i>	<i>DAXX</i>	<i>H3F3A</i>	<i>LRP1B</i>	<i>NOTCH2</i>	<i>PTEN</i>	<i>SMARCA4</i>	<i>TSC1</i>
<i>ATRX</i>	<i>DDX3X</i>	<i>HIST1H3B</i>	<i>LZTR1</i>	<i>NRAS</i>	<i>PTPN11</i>	<i>SMARCB1</i>	<i>TSC2</i>
<i>BAP1</i>	<i>DNMT3A</i>	<i>HIST1H3C</i>	<i>MAP2K1</i>	<i>PARP1</i>	<i>PTPRD</i>	<i>SMARCE1</i>	<i>WRN</i>
<i>BCOR</i>	<i>EGFR</i>	<i>IDH1</i>	<i>MDM2</i>	<i>PDGFRA</i>	<i>QKI</i>	<i>SMO</i>	<i>WT1</i>
<i>BCORL1</i>	<i>EZH2</i>	<i>IDH2</i>	<i>MLH1</i>	<i>PIK3C2B</i>	<i>RAF1</i>	<i>SOS1</i>	<i>YAP1</i>
<i>BRAF</i>	<i>FGFR1</i>	<i>JAK2</i>	<i>MSH2</i>	<i>PIK3CA</i>	<i>RB1</i>	<i>STAG2</i>	<i>ZBTB20</i>
<i>CBL</i>	<i>FGFR2</i>	<i>KDM5A</i>	<i>MSH3</i>	<i>PIK3R1</i>	<i>RELA</i>	<i>STAT3</i>	
<i>CDK6</i>	<i>FGFR3</i>	<i>KDM5C</i>	<i>MSH6</i>	<i>PIK3R2</i>	<i>RPL5</i>	<i>SUFU</i>	

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>ACVR1</i>	NM_0011105	158594040 – 158594179
<i>ACVR1</i>	NM_0011105	158594949 – 158595084
<i>ACVR1</i>	NM_0011105	158617389 – 158617591
<i>ACVR1</i>	NM_0011105	158622430 – 158622710
<i>ACVR1</i>	NM_0011105	158626877 – 158627028
<i>ACVR1</i>	NM_0011105	158630597 – 158630701
<i>ACVR1</i>	NM_0011105	158634640 – 158634856
<i>ACVR1</i>	NM_0011105	158636846 – 158637114
<i>ACVR1</i>	NM_0011105	158655936 – 158656007
<i>AKT1</i>	NM_005163	105236675 – 105236759
<i>AKT1</i>	NM_005163	105237079 – 105237186
<i>AKT1</i>	NM_005163	105238699 – 105238791
<i>AKT1</i>	NM_005163	105239212 – 105239431
<i>AKT1</i>	NM_005163	105239585 – 105239718
<i>AKT1</i>	NM_005163	105239789 – 105239919
<i>AKT1</i>	NM_005163	105240246 – 105240319
<i>AKT1</i>	NM_005163	105241272 – 105241342
<i>AKT1</i>	NM_005163	105241410 – 105241546
<i>AKT1</i>	NM_005163	105241986 – 105242138
<i>AKT1</i>	NM_005163	105242993 – 105243109
<i>AKT1</i>	NM_005163	105246422 – 105246555
<i>AKT1</i>	NM_005163	105258932 – 105258982

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>AKT2</i>	NM_001243027	40739776 – 40739860
<i>AKT2</i>	NM_001243027	40740949 – 40741056
<i>AKT2</i>	NM_001243027	40741167 – 40741259
<i>AKT2</i>	NM_001243027	40741794 – 40741804
<i>AKT2</i>	NM_001243027	40742161 – 40742294
<i>AKT2</i>	NM_001243027	40743873 – 40744000
<i>AKT2</i>	NM_001243027	40744809 – 40744882
<i>AKT2</i>	NM_001243027	40745949 – 40746019
<i>AKT2</i>	NM_001243027	40747842 – 40747978
<i>AKT2</i>	NM_001243027	40748438 – 40748596
<i>AKT2</i>	NM_001243027	40761062 – 40761167
<i>AKT3</i>	NM_005465	243668548 – 243668638
<i>AKT3</i>	NM_005465	243675623 – 243675730
<i>AKT3</i>	NM_005465	243708809 – 243708901
<i>AKT3</i>	NM_005465	243716028 – 243716247
<i>AKT3</i>	NM_005465	243727019 – 243727152
<i>AKT3</i>	NM_005465	243736225 – 243736352
<i>AKT3</i>	NM_005465	243776970 – 243777043
<i>AKT3</i>	NM_005465	243778395 – 243778465
<i>AKT3</i>	NM_005465	243800910 – 243801046
<i>AKT3</i>	NM_005465	243809192 – 243809341
<i>AKT3</i>	NM_005465	243828071 – 243828187

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
AKT3	NM_005465	243858890 – 243859020
AKT3	NM_005465	244006424 – 244006474
APC	NM_000038	112090585 – 112090724
APC	NM_000038	112102020 – 112102109
APC	NM_000038	112102883 – 112103089
APC	NM_000038	112111323 – 112111436
APC	NM_000038	112116484 – 112116602
APC	NM_000038	112128140 – 112128228
APC	NM_000038	112136973 – 112137082
APC	NM_000038	112151189 – 112151292
APC	NM_000038	112154660 – 112155043
APC	NM_000038	112157590 – 112157690
APC	NM_000038	112162802 – 112162946
APC	NM_000038	112163623 – 112163705
APC	NM_000038	112164550 – 112164671
APC	NM_000038	112170645 – 112170864
APC	NM_000038	112173247 – 112179825
ARID1A	NM_006015	27022892 – 27024033
ARID1A	NM_006015	27056139 – 27056356
ARID1A	NM_006015	27057640 – 27058097
ARID1A	NM_006015	27059164 – 27059285
ARID1A	NM_006015	27087344 – 27087589
ARID1A	NM_006015	27087872 – 27087966
ARID1A	NM_006015	27088640 – 27088812
ARID1A	NM_006015	27089461 – 27089778
ARID1A	NM_006015	27092709 – 27092859
ARID1A	NM_006015	27092945 – 27093059
ARID1A	NM_006015	27094278 – 27094492
ARID1A	NM_006015	27097607 – 27097819
ARID1A	NM_006015	27098988 – 27099125
ARID1A	NM_006015	27099300 – 27099480
ARID1A	NM_006015	27099834 – 27099989
ARID1A	NM_006015	27100068 – 27100210
ARID1A	NM_006015	27100290 – 27100391
ARID1A	NM_006015	27100817 – 27101713
ARID1A	NM_006015	27102065 – 27102200
ARID1A	NM_006015	27105511 – 27107249
ARID2	NM_152641	46123617 – 46123713
ARID2	NM_152641	46123824 – 46123922
ARID2	NM_152641	46124997 – 46125099
ARID2	NM_152641	46205198 – 46205336
ARID2	NM_152641	46211450 – 46211673
ARID2	NM_152641	46215200 – 46215272
ARID2	NM_152641	46230369 – 46230440
ARID2	NM_152641	46230521 – 46230776
ARID2	NM_152641	46231101 – 46231202

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
ARID2	NM_152641	46231278 – 46231492
ARID2	NM_152641	46233109 – 46233281
ARID2	NM_152641	46240636 – 46240722
ARID2	NM_152641	46242616 – 46242755
ARID2	NM_152641	46243360 – 46243561
ARID2	NM_152641	46243816 – 46246681
ARID2	NM_152641	46254581 – 46254734
ARID2	NM_152641	46285560 – 46285703
ARID2	NM_152641	46285791 – 46285881
ARID2	NM_152641	46287200 – 46287328
ARID2	NM_152641	46287410 – 46287506
ARID2	NM_152641	46298714 – 46298863
ATM	NM_000051	108098349 – 108098425
ATM	NM_000051	108098500 – 108098617
ATM	NM_000051	108099902 – 108100052
ATM	NM_000051	108106394 – 108106563
ATM	NM_000051	108114677 – 108114847
ATM	NM_000051	108115512 – 108115755
ATM	NM_000051	108117688 – 108117856
ATM	NM_000051	108119657 – 108119831
ATM	NM_000051	108121425 – 108121801
ATM	NM_000051	108122561 – 108122760
ATM	NM_000051	108123541 – 108123641
ATM	NM_000051	108124538 – 108124768
ATM	NM_000051	108126939 – 108127069
ATM	NM_000051	108128205 – 108128335
ATM	NM_000051	108129710 – 108129804
ATM	NM_000051	108137895 – 108138071
ATM	NM_000051	108139134 – 108139338
ATM	NM_000051	108141788 – 108141875
ATM	NM_000051	108141975 – 108142135
ATM	NM_000051	108143256 – 108143336
ATM	NM_000051	108143446 – 108143581
ATM	NM_000051	108151719 – 108151897
ATM	NM_000051	108153434 – 108153608
ATM	NM_000051	108154951 – 108155202
ATM	NM_000051	108158324 – 108158444
ATM	NM_000051	108159701 – 108159832
ATM	NM_000051	108160326 – 108160530
ATM	NM_000051	108163343 – 108163522
ATM	NM_000051	108164037 – 108164206
ATM	NM_000051	108165651 – 108165788
ATM	NM_000051	108168011 – 108168111
ATM	NM_000051	108170438 – 108170614
ATM	NM_000051	108172372 – 108172518
ATM	NM_000051	108173577 – 108173758

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
ATM	NM_000051	108175399 – 108175581
ATM	NM_000051	108178621 – 108178713
ATM	NM_000051	108180884 – 108181044
ATM	NM_000051	108183135 – 108183227
ATM	NM_000051	108186547 – 108186640
ATM	NM_000051	108186735 – 108186842
ATM	NM_000051	108188097 – 108188250
ATM	NM_000051	108190678 – 108190787
ATM	NM_000051	108192025 – 108192149
ATM	NM_000051	108196034 – 108196273
ATM	NM_000051	108196782 – 108196954
ATM	NM_000051	108198369 – 108198487
ATM	NM_000051	108199745 – 108199967
ATM	NM_000051	108200938 – 108201150
ATM	NM_000051	108202168 – 108202286
ATM	NM_000051	108202603 – 108202766
ATM	NM_000051	108203486 – 108203629
ATM	NM_000051	108204610 – 108204697
ATM	NM_000051	108205693 – 108205838
ATM	NM_000051	108206569 – 108206690
ATM	NM_000051	108213946 – 108214100
ATM	NM_000051	108216467 – 108216637
ATM	NM_000051	108218003 – 108218094
ATM	NM_000051	108224490 – 108224609
ATM	NM_000051	108225535 – 108225603
ATM	NM_000051	108235806 – 108235947
ATM	NM_000051	108236049 – 108236237
ATRX	NM_000489	76763826 – 76764109
ATRX	NM_000489	76776263 – 76776396
ATRX	NM_000489	76776878 – 76776978
ATRX	NM_000489	76777738 – 76777868
ATRX	NM_000489	76778727 – 76778881
ATRX	NM_000489	76812919 – 76813118
ATRX	NM_000489	76814137 – 76814319
ATRX	NM_000489	76829712 – 76829825
ATRX	NM_000489	76845301 – 76845412
ATRX	NM_000489	76849163 – 76849321
ATRX	NM_000489	76854877 – 76855051
ATRX	NM_000489	76855198 – 76855291
ATRX	NM_000489	76855900 – 76856035
ATRX	NM_000489	76872078 – 76872200
ATRX	NM_000489	76874271 – 76874451
ATRX	NM_000489	76875860 – 76876002
ATRX	NM_000489	76888692 – 76888874
ATRX	NM_000489	76889051 – 76889202
ATRX	NM_000489	76890082 – 76890196

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
ATRX	NM_000489	76891403 – 76891549
ATRX	NM_000489	76907601 – 76907845
ATRX	NM_000489	76909585 – 76909692
ATRX	NM_000489	76912047 – 76912145
ATRX	NM_000489	76918868 – 76919049
ATRX	NM_000489	76920131 – 76920269
ATRX	NM_000489	76931718 – 76931795
ATRX	NM_000489	76937009 – 76940087
ATRX	NM_000489	76940428 – 76940500
ATRX	NM_000489	76944308 – 76944422
ATRX	NM_000489	76949310 – 76949428
ATRX	NM_000489	76952062 – 76952194
ATRX	NM_000489	76953068 – 76953125
ATRX	NM_000489	76954059 – 76954119
ATRX	NM_000489	76972605 – 76972722
ATRX	NM_000489	77041465 – 77041489
BAP1	NM_004656	52436301 – 52436439
BAP1	NM_004656	52436615 – 52436692
BAP1	NM_004656	52436792 – 52436889
BAP1	NM_004656	52437151 – 52437316
BAP1	NM_004656	52437429 – 52437912
BAP1	NM_004656	52438466 – 52438604
BAP1	NM_004656	52439123 – 52439312
BAP1	NM_004656	52439778 – 52439930
BAP1	NM_004656	52440266 – 52440394
BAP1	NM_004656	52440842 – 52440925
BAP1	NM_004656	52441187 – 52441334
BAP1	NM_004656	52441412 – 52441478
BAP1	NM_004656	52441971 – 52442095
BAP1	NM_004656	52442487 – 52442624
BAP1	NM_004656	52443567 – 52443626
BAP1	NM_004656	52443727 – 52443761
BAP1	NM_004656	52443855 – 52443896
BCOR	NM_017745	39911359 – 39911655
BCOR	NM_017745	39913136 – 39913297
BCOR	NM_017745	39913506 – 39913588
BCOR	NM_017745	39914618 – 39914768
BCOR	NM_017745	39916405 – 39916576
BCOR	NM_017745	39921389 – 39921648
BCOR	NM_017745	39921996 – 39922326
BCOR	NM_017745	39922858 – 39923105
BCOR	NM_017745	39923586 – 39923854
BCOR	NM_017745	39930223 – 39930414
BCOR	NM_017745	39930887 – 39930945
BCOR	NM_017745	39931599 – 39934435
BCOR	NM_017745	39935704 – 39935787
BCOR	NM_017745	39937094 – 39937184

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>BCORL1</i>	NM_021946	129139205 – 129139295
<i>BCORL1</i>	NM_021946	129146551 – 129146646
<i>BCORL1</i>	NM_021946	129146923 – 129150191
<i>BCORL1</i>	NM_021946	129154957 – 129155127
<i>BCORL1</i>	NM_021946	129156869 – 129156954
<i>BCORL1</i>	NM_021946	129158962 – 129159356
<i>BCORL1</i>	NM_021946	129162607 – 129162838
<i>BCORL1</i>	NM_021946	129171339 – 129171510
<i>BCORL1</i>	NM_021946	129173109 – 129173259
<i>BCORL1</i>	NM_021946	129184689 – 129184771
<i>BCORL1</i>	NM_021946	129185832 – 129185993
<i>BCORL1</i>	NM_021946	129189826 – 129190113
<i>BRAF</i>	NM_004333	140434394 – 140434572
<i>BRAF</i>	NM_004333	140439609 – 140439748
<i>BRAF</i>	NM_004333	140449084 – 140449220
<i>BRAF</i>	NM_004333	140453072 – 140453195
<i>BRAF</i>	NM_004333	140453984 – 140454035
<i>BRAF</i>	NM_004333	140476709 – 140476890
<i>BRAF</i>	NM_004333	140477788 – 140477877
<i>BRAF</i>	NM_004333	140481373 – 140481495
<i>BRAF</i>	NM_004333	140482818 – 140482959
<i>BRAF</i>	NM_004333	140487345 – 140487386
<i>BRAF</i>	NM_004333	140494105 – 140494269
<i>BRAF</i>	NM_004333	140500159 – 140500283
<i>BRAF</i>	NM_004333	140501209 – 140501362
<i>BRAF</i>	NM_004333	140507757 – 140507864
<i>BRAF</i>	NM_004333	140508689 – 140508797
<i>BRAF</i>	NM_004333	140534406 – 140534674
<i>BRAF</i>	NM_004333	140549908 – 140550014
<i>BRAF</i>	NM_004333	140624363 – 140624505
<i>CBL</i>	NM_005188	119077125 – 119077324
<i>CBL</i>	NM_005188	119103155 – 119103407
<i>CBL</i>	NM_005188	119142442 – 119142593
<i>CBL</i>	NM_005188	119144575 – 119144736
<i>CBL</i>	NM_005188	119145539 – 119145665
<i>CBL</i>	NM_005188	119146704 – 119146846
<i>CBL</i>	NM_005188	119148464 – 119148556
<i>CBL</i>	NM_005188	119148873 – 119149009
<i>CBL</i>	NM_005188	119149217 – 119149425
<i>CBL</i>	NM_005188	119155676 – 119155812
<i>CBL</i>	NM_005188	119155896 – 119156278
<i>CBL</i>	NM_005188	119158559 – 119158658
<i>CBL</i>	NM_005188	119167625 – 119167746
<i>CBL</i>	NM_005188	119168091 – 119168193
<i>CBL</i>	NM_005188	119169065 – 119169252
<i>CBL</i>	NM_005188	119170202 – 119170493

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>CDK6</i>	NM_001259	92244451 – 92244602
<i>CDK6</i>	NM_001259	92247383 – 92247523
<i>CDK6</i>	NM_001259	92252347 – 92252402
<i>CDK6</i>	NM_001259	92300737 – 92300851
<i>CDK6</i>	NM_001259	92354937 – 92355109
<i>CDK6</i>	NM_001259	92404007 – 92404147
<i>CDK6</i>	NM_001259	92462402 – 92462639
<i>CDKN2A</i>	NM_000077	21968225 – 21968243
<i>CDKN2A</i>	NM_000077	21970898 – 21971209
<i>CDKN2A</i>	NM_000077	21974674 – 21974828
<i>CDKN2B</i>	NM_004936	22005983 – 22006248
<i>CDKN2B</i>	NM_004936	22008794 – 22008954
<i>CDKN2C</i>	NM_001262	51436038 – 51436171
<i>CDKN2C</i>	NM_001262	51439562 – 51439944
<i>CHEK2</i>	NM_007194	29083882 – 29083976
<i>CHEK2</i>	NM_007194	29085120 – 29085205
<i>CHEK2</i>	NM_007194	29090017 – 29090107
<i>CHEK2</i>	NM_007194	29091695 – 29091863
<i>CHEK2</i>	NM_007194	29092886 – 29092977
<i>CHEK2</i>	NM_007194	29095823 – 29095927
<i>CHEK2</i>	NM_007194	29099490 – 29099556
<i>CHEK2</i>	NM_007194	29105991 – 29106049
<i>CHEK2</i>	NM_007194	29107894 – 29108007
<i>CHEK2</i>	NM_007194	29115380 – 29115475
<i>CHEK2</i>	NM_007194	29120962 – 29121114
<i>CHEK2</i>	NM_007194	29121228 – 29121357
<i>CHEK2</i>	NM_007194	29130388 – 29130711
<i>CIC</i>	NM_015125	42788854 – 42788925
<i>CIC</i>	NM_015125	42790920 – 42791074
<i>CIC</i>	NM_015125	42791155 – 42791394
<i>CIC</i>	NM_015125	42791469 – 42791603
<i>CIC</i>	NM_015125	42791694 – 42791881
<i>CIC</i>	NM_015125	42791959 – 42792129
<i>CIC</i>	NM_015125	42793037 – 42793244
<i>CIC</i>	NM_015125	42793330 – 42793560
<i>CIC</i>	NM_015125	42793997 – 42794105
<i>CIC</i>	NM_015125	42794382 – 42795620
<i>CIC</i>	NM_015125	42795707 – 42795899
<i>CIC</i>	NM_015125	42796235 – 42796361
<i>CIC</i>	NM_015125	42796449 – 42796620
<i>CIC</i>	NM_015125	42796715 – 42797013
<i>CIC</i>	NM_015125	42797105 – 42797435
<i>CIC</i>	NM_015125	42797741 – 42797990
<i>CIC</i>	NM_015125	42798084 – 42798243
<i>CIC</i>	NM_015125	42798322 – 42798458
<i>CIC</i>	NM_015125	42798753 – 42798889
<i>CIC</i>	NM_015125	42798973 – 42799345

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>CTDNEP1</i>	NM_015343	7147501 – 7147566
<i>CTDNEP1</i>	NM_015343	7147867 – 7147956
<i>CTDNEP1</i>	NM_015343	7149342 – 7149458
<i>CTDNEP1</i>	NM_015343	7149570 – 7149691
<i>CTDNEP1</i>	NM_015343	7150107 – 7150183
<i>CTDNEP1</i>	NM_015343	7150380 – 7150503
<i>CTDNEP1</i>	NM_015343	7150593 – 7150664
<i>CTDNEP1</i>	NM_015343	7154511 – 7154617
<i>CTNNB1</i>	NM_001904	41265557 – 41265574
<i>CTNNB1</i>	NM_001904	41266014 – 41266246
<i>CTNNB1</i>	NM_001904	41266442 – 41266700
<i>CTNNB1</i>	NM_001904	41266822 – 41267065
<i>CTNNB1</i>	NM_001904	41267148 – 41267354
<i>CTNNB1</i>	NM_001904	41268696 – 41268845
<i>CTNNB1</i>	NM_001904	41274829 – 41274937
<i>CTNNB1</i>	NM_001904	41275017 – 41275360
<i>CTNNB1</i>	NM_001904	41275627 – 41275790
<i>CTNNB1</i>	NM_001904	41277212 – 41277336
<i>CTNNB1</i>	NM_001904	41277837 – 41277992
<i>CTNNB1</i>	NM_001904	41278076 – 41278202
<i>CTNNB1</i>	NM_001904	41279504 – 41279569
<i>CTNNB1</i>	NM_001904	41280622 – 41280835
<i>DAXX</i>	NM_001141970	33286517 – 33286581
<i>DAXX</i>	NM_001141970	33286771 – 33286998
<i>DAXX</i>	NM_001141970	33287154 – 33287633
<i>DAXX</i>	NM_001141970	33287785 – 33288003
<i>DAXX</i>	NM_001141970	33288154 – 33288370
<i>DAXX</i>	NM_001141970	33288510 – 33288961
<i>DAXX</i>	NM_001141970	33288962 – 33289346
<i>DAXX</i>	NM_001141970	33289493 – 33289687
<i>DAXX</i>	NM_001141970	33290636 – 33290693
<i>DDX3X</i>	NM_001193416	41193503 – 41193552
<i>DDX3X</i>	NM_001193416	41196658 – 41196720
<i>DDX3X</i>	NM_001193416	41198286 – 41198338
<i>DDX3X</i>	NM_001193416	41200734 – 41200871
<i>DDX3X</i>	NM_001193416	41201745 – 41201908
<i>DDX3X</i>	NM_001193416	41201987 – 41202091
<i>DDX3X</i>	NM_001193416	41202466 – 41202606
<i>DDX3X</i>	NM_001193416	41202987 – 41203077
<i>DDX3X</i>	NM_001193416	41203280 – 41203383
<i>DDX3X</i>	NM_001193416	41203489 – 41203654
<i>DDX3X</i>	NM_001193416	41204430 – 41204579
<i>DDX3X</i>	NM_001193416	41204654 – 41204803
<i>DDX3X</i>	NM_001193416	41205479 – 41205665
<i>DDX3X</i>	NM_001193416	41205755 – 41205877
<i>DDX3X</i>	NM_001193416	41206109 – 41206267

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>DDX3X</i>	NM_001193416	41206565 – 41206706
<i>DDX3X</i>	NM_001193416	41206890 – 41206974
<i>DNMT3A</i>	NM_022552	25457145 – 25457291
<i>DNMT3A</i>	NM_022552	25458573 – 25458696
<i>DNMT3A</i>	NM_022552	25459802 – 25459876
<i>DNMT3A</i>	NM_022552	25461996 – 25462086
<i>DNMT3A</i>	NM_022552	25463168 – 25463321
<i>DNMT3A</i>	NM_022552	25463506 – 25463601
<i>DNMT3A</i>	NM_022552	25464428 – 25464578
<i>DNMT3A</i>	NM_022552	25466764 – 25466853
<i>DNMT3A</i>	NM_022552	25467021 – 25467209
<i>DNMT3A</i>	NM_022552	25467406 – 25467523
<i>DNMT3A</i>	NM_022552	25468119 – 25468203
<i>DNMT3A</i>	NM_022552	25468886 – 25468935
<i>DNMT3A</i>	NM_022552	25469026 – 25469180
<i>DNMT3A</i>	NM_022552	25469486 – 25469647
<i>DNMT3A</i>	NM_022552	25469917 – 25470029
<i>DNMT3A</i>	NM_022552	25470457 – 25470620
<i>DNMT3A</i>	NM_022552	25470903 – 25471123
<i>DNMT3A</i>	NM_022552	25497807 – 25497958
<i>DNMT3A</i>	NM_022552	25498366 – 25498414
<i>DNMT3A</i>	NM_022552	25505307 – 25505582
<i>DNMT3A</i>	NM_022552	25523005 – 25523114
<i>DNMT3A</i>	NM_022552	25536779 – 25536855
<i>EGFR</i>	NM_005228	55086968 – 55087060
<i>EGFR</i>	NM_005228	55209976 – 55210132
<i>EGFR</i>	NM_005228	55210995 – 55211183
<i>EGFR</i>	NM_005228	55214296 – 55214435
<i>EGFR</i>	NM_005228	55218984 – 55219057
<i>EGFR</i>	NM_005228	55220236 – 55220359
<i>EGFR</i>	NM_005228	55221701 – 55221847
<i>EGFR</i>	NM_005228	55223520 – 55223641
<i>EGFR</i>	NM_005228	55224223 – 55224354
<i>EGFR</i>	NM_005228	55224449 – 55224527
<i>EGFR</i>	NM_005228	55225353 – 55225448
<i>EGFR</i>	NM_005228	55227829 – 55228033
<i>EGFR</i>	NM_005228	55229189 – 55229326
<i>EGFR</i>	NM_005228	55231423 – 55231518
<i>EGFR</i>	NM_005228	55232970 – 55233132
<i>EGFR</i>	NM_005228	55238865 – 55238908
<i>EGFR</i>	NM_005228	55240673 – 55240819
<i>EGFR</i>	NM_005228	55241611 – 55241738
<i>EGFR</i>	NM_005228	55242412 – 55242515
<i>EGFR</i>	NM_005228	55248983 – 55249173
<i>EGFR</i>	NM_005228	55259409 – 55259569
<i>EGFR</i>	NM_005228	55260456 – 55260536

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
EGFR	NM_005228	55266407 – 55266558
EGFR	NM_005228	55268006 – 55268108
EGFR	NM_005228	55268878 – 55269050
EGFR	NM_005228	55269425 – 55269477
EGFR	NM_005228	55270207 – 55270320
EGFR	NM_005228	55272946 – 55273312
EZH2	NM_001203247	148504735 – 148504800
EZH2	NM_001203247	148506160 – 148506249
EZH2	NM_001203247	148506399 – 148506484
EZH2	NM_001203247	148507422 – 148507508
EZH2	NM_001203247	148508714 – 148508814
EZH2	NM_001203247	148511048 – 148511231
EZH2	NM_001203247	148512003 – 148512133
EZH2	NM_001203247	148512595 – 148512640
EZH2	NM_001203247	148513773 – 148513872
EZH2	NM_001203247	148514311 – 148514485
EZH2	NM_001203247	148514966 – 148515211
EZH2	NM_001203247	148516685 – 148516781
EZH2	NM_001203247	148523558 – 148523726
EZH2	NM_001203247	148524253 – 148524360
EZH2	NM_001203247	148525829 – 148525974
EZH2	NM_001203247	148526817 – 148526942
EZH2	NM_001203247	148529723 – 148529844
EZH2	NM_001203247	148543559 – 148543692
EZH2	NM_001203247	148544271 – 148544392
FGFR1	NM_015850	38271143 – 38271324
FGFR1	NM_015850	38271433 – 38271543
FGFR1	NM_015850	38271667 – 38271809
FGFR1	NM_015850	38272074 – 38272149
FGFR1	NM_015850	38272294 – 38272421
FGFR1	NM_015850	38273385 – 38273580
FGFR1	NM_015850	38274821 – 38274936
FGFR1	NM_015850	38275385 – 38275511
FGFR1	NM_015850	38275743 – 38275893
FGFR1	NM_015850	38277048 – 38277255
FGFR1	NM_015850	38279312 – 38279461
FGFR1	NM_015850	38282024 – 38282219
FGFR1	NM_015850	38283637 – 38283765
FGFR1	NM_015850	38285436 – 38285613
FGFR1	NM_015850	38285867 – 38285955
FGFR1	NM_015850	38287197 – 38287468
FGFR1	NM_015850	38314871 – 38314966
FGFR2	NM_000141	123239368 – 123239537
FGFR2	NM_000141	123243209 – 123243319
FGFR2	NM_000141	123244906 – 123245048
FGFR2	NM_000141	123246865 – 123246940

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
FGFR2	NM_000141	123247502 – 123247629
FGFR2	NM_000141	123256043 – 123256238
FGFR2	NM_000141	123258006 – 123258121
FGFR2	NM_000141	123260337 – 123260463
FGFR2	NM_000141	123263301 – 123263457
FGFR2	NM_000141	123274628 – 123274835
FGFR2	NM_000141	123276830 – 123276979
FGFR2	NM_000141	123279490 – 123279685
FGFR2	NM_000141	123298103 – 123298231
FGFR2	NM_000141	123310801 – 123310975
FGFR2	NM_000141	123324013 – 123324095
FGFR2	NM_000141	123324949 – 123325220
FGFR2	NM_000141	123353220 – 123353333
FGFR3	NM_000142	1795659 – 1795772
FGFR3	NM_000142	1800978 – 1801252
FGFR3	NM_000142	1801471 – 1801541
FGFR3	NM_000142	1803091 – 1803265
FGFR3	NM_000142	1803344 – 1803472
FGFR3	NM_000142	1803559 – 1803754
FGFR3	NM_000142	1805416 – 1805565
FGFR3	NM_000142	1806054 – 1806249
FGFR3	NM_000142	1806548 – 1806698
FGFR3	NM_000142	1807079 – 1807205
FGFR3	NM_000142	1807283 – 1807398
FGFR3	NM_000142	1807474 – 1807669
FGFR3	NM_000142	1807775 – 1807902
FGFR3	NM_000142	1807981 – 1808056
FGFR3	NM_000142	1808270 – 1808412
FGFR3	NM_000142	1808553 – 1808663
FGFR3	NM_000142	1808840 – 1808991
FUBP1	NM_003902	78414448 – 78414461
FUBP1	NM_003902	78414837 – 78414987
FUBP1	NM_003902	78420937 – 78421016
FUBP1	NM_003902	78422254 – 78422387
FUBP1	NM_003902	78425866 – 78425950
FUBP1	NM_003902	78426026 – 78426182
FUBP1	NM_003902	78428452 – 78428617
FUBP1	NM_003902	78429256 – 78429402
FUBP1	NM_003902	78429744 – 78429849
FUBP1	NM_003902	78429936 – 78430043
FUBP1	NM_003902	78430328 – 78430434
FUBP1	NM_003902	78430552 – 78430655
FUBP1	NM_003902	78430750 – 78430917
FUBP1	NM_003902	78432375 – 78432437
FUBP1	NM_003902	78432565 – 78432641
FUBP1	NM_003902	78432730 – 78432787

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>FUBP1</i>	NM_003902	78433308 – 78433352
<i>FUBP1</i>	NM_003902	78433846 – 78433889
<i>FUBP1</i>	NM_003902	78435606 – 78435700
<i>FUBP1</i>	NM_003902	78444566 – 78444690
<i>GLI2</i>	NM_005270	121554894 – 121555046
<i>GLI2</i>	NM_005270	121684934 – 121685044
<i>GLI2</i>	NM_005270	121708816 – 121709023
<i>GLI2</i>	NM_005270	121712818 – 121713008
<i>GLI2</i>	NM_005270	121726287 – 121726493
<i>GLI2</i>	NM_005270	121727966 – 121728184
<i>GLI2</i>	NM_005270	121729514 – 121729641
<i>GLI2</i>	NM_005270	121732497 – 121732687
<i>GLI2</i>	NM_005270	121736007 – 121736161
<i>GLI2</i>	NM_005270	121740289 – 121740458
<i>GLI2</i>	NM_005270	121742044 – 121742321
<i>GLI2</i>	NM_005270	121743851 – 121744192
<i>GLI2</i>	NM_005270	121745781 – 121748253
<i>GLI3</i>	NM_000168	42003925 – 42006241
<i>GLI3</i>	NM_000168	42007191 – 42007523
<i>GLI3</i>	NM_000168	42011933 – 42012228
<i>GLI3</i>	NM_000168	42017154 – 42017323
<i>GLI3</i>	NM_000168	42018195 – 42018349
<i>GLI3</i>	NM_000168	42063064 – 42063209
<i>GLI3</i>	NM_000168	42064860 – 42064978
<i>GLI3</i>	NM_000168	42065795 – 42066013
<i>GLI3</i>	NM_000168	42079634 – 42079840
<i>GLI3</i>	NM_000168	42084980 – 42085131
<i>GLI3</i>	NM_000168	42088087 – 42088297
<i>GLI3</i>	NM_000168	42116348 – 42116458
<i>GLI3</i>	NM_000168	42187822 – 42188069
<i>GLI3</i>	NM_000168	42262726 – 42262854
<i>GNA11</i>	NM_002067	3094647 – 3094787
<i>GNA11</i>	NM_002067	3110144 – 3110333
<i>GNA11</i>	NM_002067	3113325 – 3113484
<i>GNA11</i>	NM_002067	3114939 – 3115072
<i>GNA11</i>	NM_002067	3118919 – 3119053
<i>GNA11</i>	NM_002067	3119201 – 3119359
<i>GNA11</i>	NM_002067	3120984 – 3121179
<i>GNAQ</i>	NM_002072	80336236 – 80336431
<i>GNAQ</i>	NM_002072	80343427 – 80343585
<i>GNAQ</i>	NM_002072	80409376 – 80409510
<i>GNAQ</i>	NM_002072	80412433 – 80412566
<i>GNAQ</i>	NM_002072	80430529 – 80430688
<i>GNAQ</i>	NM_002072	80537074 – 80537263
<i>GNAQ</i>	NM_002072	80646013 – 80646153

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>GNAS</i>	NM_000516	57466779 – 57466922
<i>GNAS</i>	NM_000516	57470664 – 57470741
<i>GNAS</i>	NM_000516	57473993 – 57474042
<i>GNAS</i>	NM_000516	57478583 – 57478642
<i>GNAS</i>	NM_000516	57478724 – 57478848
<i>GNAS</i>	NM_000516	57480435 – 57480537
<i>GNAS</i>	NM_000516	57484214 – 57484273
<i>GNAS</i>	NM_000516	57484402 – 57484480
<i>GNAS</i>	NM_000516	57484573 – 57484636
<i>GNAS</i>	NM_000516	57484736 – 57484861
<i>GNAS</i>	NM_000516	57485003 – 57485138
<i>GNAS</i>	NM_000516	57485386 – 57485458
<i>GNAS</i>	NM_000516	57485735 – 57485886
<i>GPS2</i>	NM_004489	7216072 – 7216160
<i>GPS2</i>	NM_004489	7216345 – 7216445
<i>GPS2</i>	NM_004489	7216528 – 7216612
<i>GPS2</i>	NM_004489	7216696 – 7216790
<i>GPS2</i>	NM_004489	7216884 – 7217042
<i>GPS2</i>	NM_004489	7217222 – 7217309
<i>GPS2</i>	NM_004489	7217396 – 7217480
<i>GPS2</i>	NM_004489	7217607 – 7217724
<i>GPS2</i>	NM_004489	7217804 – 7217918
<i>GPS2</i>	NM_004489	7218275 – 7218373
<i>H3F3A</i>	NM_002107	226252050 – 226252182
<i>H3F3A</i>	NM_002107	226253354 – 226253512
<i>H3F3A</i>	NM_002107	226259049 – 226259140
<i>HIST1H3B</i>	NM_003537	26031875 – 26032290
<i>HIST1H3C</i>	NM_003531	26045636 – 26046051
<i>IDH1</i>	NM_005896	209101800 – 209101895
<i>IDH1</i>	NM_005896	209103792 – 209103959
<i>IDH1</i>	NM_005896	209104584 – 209104729
<i>IDH1</i>	NM_005896	209106715 – 209106871
<i>IDH1</i>	NM_005896	209108148 – 209108330
<i>IDH1</i>	NM_005896	209110040 – 209110150
<i>IDH1</i>	NM_005896	209113090 – 209113386
<i>IDH1</i>	NM_005896	209116151 – 209116277
<i>IDH2</i>	NM_002168	90627495 – 90627587
<i>IDH2</i>	NM_002168	90628045 – 90628142
<i>IDH2</i>	NM_002168	90628230 – 90628332
<i>IDH2</i>	NM_002168	90628504 – 90628621
<i>IDH2</i>	NM_002168	90630341 – 90630497
<i>IDH2</i>	NM_002168	90630668 – 90630809
<i>IDH2</i>	NM_002168	90631588 – 90631736
<i>IDH2</i>	NM_002168	90631816 – 90631981
<i>IDH2</i>	NM_002168	90633708 – 90633878
<i>IDH2</i>	NM_002168	90634782 – 90634878
<i>IDH2</i>	NM_002168	90645505 – 90645624

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
JAK2	NM_004972	5021985 – 5022215
JAK2	NM_004972	5029780 – 5029908
JAK2	NM_004972	5044400 – 5044522
JAK2	NM_004972	5050683 – 5050833
JAK2	NM_004972	5054560 – 5054886
JAK2	NM_004972	5055666 – 5055790
JAK2	NM_004972	5064880 – 5065042
JAK2	NM_004972	5066675 – 5066791
JAK2	NM_004972	5069019 – 5069210
JAK2	NM_004972	5069922 – 5070054
JAK2	NM_004972	5072489 – 5072628
JAK2	NM_004972	5073695 – 5073787
JAK2	NM_004972	5077450 – 5077582
JAK2	NM_004972	5078303 – 5078446
JAK2	NM_004972	5080226 – 5080382
JAK2	NM_004972	5080530 – 5080685
JAK2	NM_004972	5081722 – 5081863
JAK2	NM_004972	5089671 – 5089865
JAK2	NM_004972	5090443 – 5090572
JAK2	NM_004972	5090736 – 5090913
JAK2	NM_004972	5123001 – 5123123
JAK2	NM_004972	5126330 – 5126448
JAK2	NM_004972	5126681 – 5126793
KDM5A	NM_001042603	394619 – 394830
KDM5A	NM_001042603	401922 – 402337
KDM5A	NM_001042603	404736 – 404961
KDM5A	NM_001042603	406204 – 406368
KDM5A	NM_001042603	416109 – 416257
KDM5A	NM_001042603	416617 – 417173
KDM5A	NM_001042603	418966 – 419132
KDM5A	NM_001042603	420048 – 420232
KDM5A	NM_001042603	422219 – 422362
KDM5A	NM_001042603	427269 – 427629
KDM5A	NM_001042603	430158 – 430277
KDM5A	NM_001042603	431580 – 431735
KDM5A	NM_001042603	432245 – 432374
KDM5A	NM_001042603	432763 – 432949
KDM5A	NM_001042603	437998 – 438197
KDM5A	NM_001042603	440982 – 441106
KDM5A	NM_001042603	442650 – 442817
KDM5A	NM_001042603	443404 – 443590
KDM5A	NM_001042603	459784 – 459947
KDM5A	NM_001042603	461368 – 461492
KDM5A	NM_001042603	463239 – 463402
KDM5A	NM_001042603	464321 – 464417
KDM5A	NM_001042603	465595 – 465705

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
KDM5A	NM_001042603	472126 – 472265
KDM5A	NM_001042603	475097 – 475272
KDM5A	NM_001042603	493194 – 493321
KDM5A	NM_001042603	495060 – 495142
KDM5A	NM_001042603	498090 – 498259
KDM5C	NM_001282622	53222146 – 53222516
KDM5C	NM_001282622	53222616 – 53222820
KDM5C	NM_001282622	53222952 – 53223035
KDM5C	NM_001282622	53223318 – 53223922
KDM5C	NM_001282622	53224110 – 53224252
KDM5C	NM_001282622	53224410 – 53224594
KDM5C	NM_001282622	53225095 – 53225238
KDM5C	NM_001282622	53225865 – 53226228
KDM5C	NM_001282622	53226950 – 53227060
KDM5C	NM_001282622	53227669 – 53227821
KDM5C	NM_001282622	53227943 – 53228072
KDM5C	NM_001282622	53228156 – 53228342
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KDM5C	NM_001282622	53239593 – 53239760
KDM5C	NM_001282622	53239855 – 53240041
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KDM5C	NM_001282622	53240966 – 53241090
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KDM5C	NM_001282622	53247455 – 53247582
KDM5C	NM_001282622	53250018 – 53250100
KDM5C	NM_001282622	53253919 – 53254073
KDM6A	NM_021140	44732795 – 44732960
KDM6A	NM_021140	44733167 – 44733235
KDM6A	NM_021140	44820526 – 44820639
KDM6A	NM_021140	44833908 – 44833962
KDM6A	NM_021140	44870203 – 44870266
KDM6A	NM_021140	44879852 – 44879977
KDM6A	NM_021140	44894173 – 44894232
KDM6A	NM_021140	44896897 – 44896936
KDM6A	NM_021140	44910951 – 44911049
KDM6A	NM_021140	44913071 – 44913202
KDM6A	NM_021140	44918248 – 44918351
KDM6A	NM_021140	44918489 – 44918713
KDM6A	NM_021140	44919264 – 44919403
KDM6A	NM_021140	44920566 – 44920666
KDM6A	NM_021140	44921889 – 44921995



*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
KDM6A	NM_021140	44922664 – 44923064
KDM6A	NM_021140	44928821 – 44929604
KDM6A	NM_021140	44935939 – 44936073
KDM6A	NM_021140	44937642 – 44937752
KDM6A	NM_021140	44938388 – 44938598
KDM6A	NM_021140	44941818 – 44941887
KDM6A	NM_021140	44941957 – 44942036
KDM6A	NM_021140	44942702 – 44942855
KDM6A	NM_021140	44945107 – 44945226
KDM6A	NM_021140	44948985 – 44949177
KDM6A	NM_021140	44949965 – 44950111
KDM6A	NM_021140	44966652 – 44966783
KDM6A	NM_021140	44969321 – 44969496
KDM6A	NM_021140	44970624 – 44970658
KLF4	NM_001314052	110248029 – 110248209
KLF4	NM_001314052	110249306 – 110250550
KLF4	NM_001314052	110251208 – 110251333
KLF4	NM_001314052	110251446 – 110251455
KMT2B	NM_014727	36208990 – 36209285
KMT2B	NM_014727	36210368 – 36210445
KMT2B	NM_014727	36210683 – 36211494
KMT2B	NM_014727	36211515 – 36212105
KMT2B	NM_014727	36212144 – 36212708
KMT2B	NM_014727	36213258 – 36213376
KMT2B	NM_014727	36213467 – 36213622
KMT2B	NM_014727	36213894 – 36214178
KMT2B	NM_014727	36214346 – 36214406
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KMT2B	NM_014727	36215535 – 36215634
KMT2B	NM_014727	36215887 – 36215990
KMT2B	NM_014727	36216118 – 36216236
KMT2B	NM_014727	36216377 – 36216528
KMT2B	NM_014727	36216621 – 36216721
KMT2B	NM_014727	36217134 – 36217256
KMT2B	NM_014727	36218054 – 36218172
KMT2B	NM_014727	36218336 – 36218525
KMT2B	NM_014727	36218596 – 36218690
KMT2B	NM_014727	36218779 – 36218888
KMT2B	NM_014727	36218996 – 36219074
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KMT2B	NM_014727	36219883 – 36219979
KMT2B	NM_014727	36220057 – 36220199
KMT2B	NM_014727	36220865 – 36221028
KMT2B	NM_014727	36221240 – 36221365
KMT2B	NM_014727	36221436 – 36221519
KMT2B	NM_014727	36221605 – 36221770

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
KMT2B	NM_014727	36222806 – 36223038
KMT2B	NM_014727	36223113 – 36224193
KMT2B	NM_014727	36224214 – 36224411
KMT2B	NM_014727	36224495 – 36224589
KMT2B	NM_014727	36224661 – 36224775
KMT2B	NM_014727	36227588 – 36227730
KMT2B	NM_014727	36227810 – 36227889
KMT2B	NM_014727	36227984 – 36228166
KMT2B	NM_014727	36228534 – 36228646
KMT2B	NM_014727	36228757 – 36228845
KMT2B	NM_014727	36228960 – 36229094
KMT2B	NM_014727	36229180 – 36229460
KMT2C	NM_170606	151833914 – 151834011
KMT2C	NM_170606	151835878 – 151835991
KMT2C	NM_170606	151836268 – 151836346
KMT2C	NM_170606	151836757 – 151836878
KMT2C	NM_170606	151841795 – 151841968
KMT2C	NM_170606	151842235 – 151842382
KMT2C	NM_170606	151843681 – 151843822
KMT2C	NM_170606	151845115 – 151846239
KMT2C	NM_170606	151847982 – 151848094
KMT2C	NM_170606	151848524 – 151848668
KMT2C	NM_170606	151849787 – 151850041
KMT2C	NM_170606	151851092 – 151851233
KMT2C	NM_170606	151851349 – 151851532
KMT2C	NM_170606	151852992 – 151853144
KMT2C	NM_170606	151853287 – 151853433
KMT2C	NM_170606	151855945 – 151856159
KMT2C	NM_170606	151859199 – 151860913
KMT2C	NM_170606	151864228 – 151864465
KMT2C	NM_170606	151866268 – 151866336
KMT2C	NM_170606	151868346 – 151868429
KMT2C	NM_170606	151871213 – 151871329
KMT2C	NM_170606	151873273 – 151874146
KMT2C	NM_170606	151874147 – 151875095
KMT2C	NM_170606	151876916 – 151877213
KMT2C	NM_170606	151877793 – 151879681
KMT2C	NM_170606	151880056 – 151880243
KMT2C	NM_170606	151882640 – 151882718
KMT2C	NM_170606	151884344 – 151884563
KMT2C	NM_170606	151884797 – 151884934
KMT2C	NM_170606	151891091 – 151891215
KMT2C	NM_170606	151891311 – 151891348
KMT2C	NM_170606	151891522 – 151891655
KMT2C	NM_170606	151892989 – 151893098
KMT2C	NM_170606	151896361 – 151896546

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>KMT2C</i>	NM_170606	151900016 – 151900151
<i>KMT2C</i>	NM_170606	151902188 – 151902312
<i>KMT2C</i>	NM_170606	151904382 – 151904515
<i>KMT2C</i>	NM_170606	151917605 – 151917822
<i>KMT2C</i>	NM_170606	151919083 – 151919153
<i>KMT2C</i>	NM_170606	151919655 – 151919769
<i>KMT2C</i>	NM_170606	151921097 – 151921171
<i>KMT2C</i>	NM_170606	151921517 – 151921609
<i>KMT2C</i>	NM_170606	151927302 – 151927408
<i>KMT2C</i>	NM_170606	151932899 – 151933020
<i>KMT2C</i>	NM_170606	151946958 – 151947040
<i>KMT2C</i>	NM_170606	151947935 – 151948053
<i>KMT2C</i>	NM_170606	151949021 – 151949177
<i>KMT2C</i>	NM_170606	151949628 – 151949802
<i>KMT2C</i>	NM_170606	151960098 – 151960217
<i>KMT2C</i>	NM_170606	152007048 – 152007162
<i>KMT2C</i>	NM_170606	152008880 – 152009033
<i>KMT2C</i>	NM_170606	152012220 – 152012425
<i>KMT2C</i>	NM_170606	152027683 – 152027826
<i>KMT2C</i>	NM_170606	152055669 – 152055762
<i>KMT2C</i>	NM_170606	152132708 – 152132873
<i>KMT2D</i>	NM_003482	49415560 – 49415657
<i>KMT2D</i>	NM_003482	49415823 – 49415936
<i>KMT2D</i>	NM_003482	49416060 – 49416138
<i>KMT2D</i>	NM_003482	49416370 – 49416660
<i>KMT2D</i>	NM_003482	49418358 – 49418493
<i>KMT2D</i>	NM_003482	49418590 – 49418731
<i>KMT2D</i>	NM_003482	49419962 – 49421107
<i>KMT2D</i>	NM_003482	49421583 – 49421715
<i>KMT2D</i>	NM_003482	49421789 – 49421926
<i>KMT2D</i>	NM_003482	49422608 – 49422743
<i>KMT2D</i>	NM_003482	49422841 – 49423021
<i>KMT2D</i>	NM_003482	49423181 – 49423261
<i>KMT2D</i>	NM_003482	49424060 – 49424224
<i>KMT2D</i>	NM_003482	49424381 – 49424553
<i>KMT2D</i>	NM_003482	49424673 – 49424818
<i>KMT2D</i>	NM_003482	49424955 – 49427749
<i>KMT2D</i>	NM_003482	49427847 – 49428084
<i>KMT2D</i>	NM_003482	49428190 – 49428261
<i>KMT2D</i>	NM_003482	49428362 – 49428451
<i>KMT2D</i>	NM_003482	49428592 – 49428720
<i>KMT2D</i>	NM_003482	49430905 – 49432774
<i>KMT2D</i>	NM_003482	49433002 – 49433143
<i>KMT2D</i>	NM_003482	49433215 – 49433402
<i>KMT2D</i>	NM_003482	49433504 – 49435320
<i>KMT2D</i>	NM_003482	49435435 – 49435490

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>KMT2D</i>	NM_003482	49435697 – 49435775
<i>KMT2D</i>	NM_003482	49435869 – 49436115
<i>KMT2D</i>	NM_003482	49436341 – 49436430
<i>KMT2D</i>	NM_003482	49436521 – 49436663
<i>KMT2D</i>	NM_003482	49436856 – 49436971
<i>KMT2D</i>	NM_003482	49437143 – 49437213
<i>KMT2D</i>	NM_003482	49437415 – 49437567
<i>KMT2D</i>	NM_003482	49437648 – 49437783
<i>KMT2D</i>	NM_003482	49437980 – 49438089
<i>KMT2D</i>	NM_003482	49438183 – 49438307
<i>KMT2D</i>	NM_003482	49438524 – 49438750
<i>KMT2D</i>	NM_003482	49439700 – 49439752
<i>KMT2D</i>	NM_003482	49439845 – 49439959
<i>KMT2D</i>	NM_003482	49440040 – 49440209
<i>KMT2D</i>	NM_003482	49440389 – 49440575
<i>KMT2D</i>	NM_003482	49441745 – 49441854
<i>KMT2D</i>	NM_003482	49442439 – 49442554
<i>KMT2D</i>	NM_003482	49442885 – 49443003
<i>KMT2D</i>	NM_003482	49443462 – 49444575
<i>KMT2D</i>	NM_003482	49444666 – 49446209
<i>KMT2D</i>	NM_003482	49446344 – 49446494
<i>KMT2D</i>	NM_003482	49446695 – 49446857
<i>KMT2D</i>	NM_003482	49446987 – 49447106
<i>KMT2D</i>	NM_003482	49447256 – 49447426
<i>KMT2D</i>	NM_003482	49447758 – 49447925
<i>KMT2D</i>	NM_003482	49448087 – 49448201
<i>KMT2D</i>	NM_003482	49448308 – 49448536
<i>KMT2D</i>	NM_003482	49448680 – 49448811
<i>KMT2D</i>	NM_003482	49449056 – 49449109
<i>KRAS</i>	NM_004985	25362726 – 25362847
<i>KRAS</i>	NM_004985	25378545 – 25378709
<i>KRAS</i>	NM_004985	25380165 – 25380348
<i>KRAS</i>	NM_004985	25398205 – 25398320
<i>LDB1</i>	NM_003893	103867847 – 103868082
<i>LDB1</i>	NM_003893	103868783 – 103868936
<i>LDB1</i>	NM_003893	103869138 – 103869266
<i>LDB1</i>	NM_003893	103869354 – 103869442
<i>LDB1</i>	NM_003893	103869675 – 103869802
<i>LDB1</i>	NM_003893	103870283 – 103870460
<i>LDB1</i>	NM_003893	103870623 – 103870730
<i>LDB1</i>	NM_003893	103870823 – 103870903
<i>LDB1</i>	NM_003893	103871010 – 103871059
<i>LDB1</i>	NM_003893	103871188 – 103871212
<i>LRP1B</i>	NM_018557	140990752 – 140990897
<i>LRP1B</i>	NM_018557	140992352 – 140992455
<i>LRP1B</i>	NM_018557	140995718 – 140995867

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>LRP1B</i>	NM_018557	140997008 – 140997103
<i>LRP1B</i>	NM_018557	141004652 – 141004733
<i>LRP1B</i>	NM_018557	141027808 – 141027917
<i>LRP1B</i>	NM_018557	141031990 – 141032169
<i>LRP1B</i>	NM_018557	141055374 – 141055540
<i>LRP1B</i>	NM_018557	141072501 – 141072670
<i>LRP1B</i>	NM_018557	141079529 – 141079659
<i>LRP1B</i>	NM_018557	141081459 – 141081637
<i>LRP1B</i>	NM_018557	141083328 – 141083449
<i>LRP1B</i>	NM_018557	141092019 – 141092130
<i>LRP1B</i>	NM_018557	141093181 – 141093409
<i>LRP1B</i>	NM_018557	141108363 – 141108609
<i>LRP1B</i>	NM_018557	141110519 – 141110643
<i>LRP1B</i>	NM_018557	141113908 – 141114047
<i>LRP1B</i>	NM_018557	141115545 – 141115687
<i>LRP1B</i>	NM_018557	141116387 – 141116517
<i>LRP1B</i>	NM_018557	141122227 – 141122354
<i>LRP1B</i>	NM_018557	141128276 – 141128413
<i>LRP1B</i>	NM_018557	141128745 – 141128856
<i>LRP1B</i>	NM_018557	141130574 – 141130708
<i>LRP1B</i>	NM_018557	141135746 – 141135857
<i>LRP1B</i>	NM_018557	141143459 – 141143580
<i>LRP1B</i>	NM_018557	141200070 – 141200194
<i>LRP1B</i>	NM_018557	141201896 – 141202020
<i>LRP1B</i>	NM_018557	141202129 – 141202250
<i>LRP1B</i>	NM_018557	141208134 – 141208232
<i>LRP1B</i>	NM_018557	141214021 – 141214174
<i>LRP1B</i>	NM_018557	141215029 – 141215222
<i>LRP1B</i>	NM_018557	141232704 – 141232908
<i>LRP1B</i>	NM_018557	141242909 – 141243095
<i>LRP1B</i>	NM_018557	141245183 – 141245310
<i>LRP1B</i>	NM_018557	141250174 – 141250264
<i>LRP1B</i>	NM_018557	141253131 – 141253319
<i>LRP1B</i>	NM_018557	141259253 – 141259445
<i>LRP1B</i>	NM_018557	141260529 – 141260674
<i>LRP1B</i>	NM_018557	141264362 – 141264489
<i>LRP1B</i>	NM_018557	141267494 – 141267627
<i>LRP1B</i>	NM_018557	141272219 – 141272343
<i>LRP1B</i>	NM_018557	141274455 – 141274582
<i>LRP1B</i>	NM_018557	141283410 – 141283564
<i>LRP1B</i>	NM_018557	141283803 – 141283921
<i>LRP1B</i>	NM_018557	141291587 – 141291711
<i>LRP1B</i>	NM_018557	141294147 – 141294280
<i>LRP1B</i>	NM_018557	141298539 – 141298669
<i>LRP1B</i>	NM_018557	141299345 – 141299542
<i>LRP1B</i>	NM_018557	141356197 – 141356406

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>LRP1B</i>	NM_018557	141359016 – 141359210
<i>LRP1B</i>	NM_018557	141457816 – 141458192
<i>LRP1B</i>	NM_018557	141459287 – 141459416
<i>LRP1B</i>	NM_018557	141459707 – 141459863
<i>LRP1B</i>	NM_018557	141459993 – 141460124
<i>LRP1B</i>	NM_018557	141473539 – 141473673
<i>LRP1B</i>	NM_018557	141474248 – 141474387
<i>LRP1B</i>	NM_018557	141526779 – 141526915
<i>LRP1B</i>	NM_018557	141528447 – 141528577
<i>LRP1B</i>	NM_018557	141533664 – 141533809
<i>LRP1B</i>	NM_018557	141571223 – 141571377
<i>LRP1B</i>	NM_018557	141597557 – 141597656
<i>LRP1B</i>	NM_018557	141598484 – 141598663
<i>LRP1B</i>	NM_018557	141607668 – 141607900
<i>LRP1B</i>	NM_018557	141609218 – 141609354
<i>LRP1B</i>	NM_018557	141625156 – 141625405
<i>LRP1B</i>	NM_018557	141625665 – 141625831
<i>LRP1B</i>	NM_018557	141641383 – 141641592
<i>LRP1B</i>	NM_018557	141643704 – 141643906
<i>LRP1B</i>	NM_018557	141660486 – 141660736
<i>LRP1B</i>	NM_018557	141665443 – 141665648
<i>LRP1B</i>	NM_018557	141680531 – 141680718
<i>LRP1B</i>	NM_018557	141707801 – 141707973
<i>LRP1B</i>	NM_018557	141709426 – 141709511
<i>LRP1B</i>	NM_018557	141739726 – 141739847
<i>LRP1B</i>	NM_018557	141747098 – 141747228
<i>LRP1B</i>	NM_018557	141751561 – 141751706
<i>LRP1B</i>	NM_018557	141762901 – 141763028
<i>LRP1B</i>	NM_018557	141771122 – 141771316
<i>LRP1B</i>	NM_018557	141773262 – 141773486
<i>LRP1B</i>	NM_018557	141777488 – 141777673
<i>LRP1B</i>	NM_018557	141806552 – 141806793
<i>LRP1B</i>	NM_018557	141812682 – 141812830
<i>LRP1B</i>	NM_018557	141816449 – 141816625
<i>LRP1B</i>	NM_018557	141819617 – 141819844
<i>LRP1B</i>	NM_018557	141945987 – 141946154
<i>LRP1B</i>	NM_018557	141986749 – 141987011
<i>LRP1B</i>	NM_018557	142004792 – 142004925
<i>LRP1B</i>	NM_018557	142012088 – 142012212
<i>LRP1B</i>	NM_018557	142237962 – 142238104
<i>LRP1B</i>	NM_018557	142567845 – 142567972
<i>LRP1B</i>	NM_018557	142888214 – 142888300
<i>LZTR1</i>	NM_006767	21336658 – 21336862
<i>LZTR1</i>	NM_006767	21337313 – 21337380
<i>LZTR1</i>	NM_006767	21340127 – 21340188
<i>LZTR1</i>	NM_006767	21341790 – 21341874

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
LZTR1	NM_006767	21342296 – 21342409
LZTR1	NM_006767	21343075 – 21343163
LZTR1	NM_006767	21343911 – 21343973
LZTR1	NM_006767	21344672 – 21344816
LZTR1	NM_006767	21345914 – 21346120
LZTR1	NM_006767	21346500 – 21346660
LZTR1	NM_006767	21347080 – 21347195
LZTR1	NM_006767	21347948 – 21348045
LZTR1	NM_006767	21348210 – 21348310
LZTR1	NM_006767	21348390 – 21348560
LZTR1	NM_006767	21348844 – 21349018
LZTR1	NM_006767	21349156 – 21349317
LZTR1	NM_006767	21350032 – 21350163
LZTR1	NM_006767	21350249 – 21350403
LZTR1	NM_006767	21350982 – 21351092
LZTR1	NM_006767	21351172 – 21351257
LZTR1	NM_006767	21351518 – 21351639
MAP2K1	NM_002755	66679683 – 66679767
MAP2K1	NM_002755	66727362 – 66727577
MAP2K1	NM_002755	66729081 – 66729232
MAP2K1	NM_002755	66735615 – 66735697
MAP2K1	NM_002755	66736991 – 66737047
MAP2K1	NM_002755	66774090 – 66774219
MAP2K1	NM_002755	66777325 – 66777531
MAP2K1	NM_002755	66779563 – 66779632
MAP2K1	NM_002755	66781550 – 66781616
MAP2K1	NM_002755	66782053 – 66782103
MAP2K1	NM_002755	66782837 – 66782955
MDM2	NM_002392	69202255 – 69202273
MDM2	NM_002392	69202985 – 69203074
MDM2	NM_002392	69207331 – 69207410
MDM2	NM_002392	69210589 – 69210727
MDM2	NM_002392	69214102 – 69214156
MDM2	NM_002392	69218140 – 69218212
MDM2	NM_002392	69218332 – 69218433
MDM2	NM_002392	69222548 – 69222713
MDM2	NM_002392	69229606 – 69229766
MDM2	NM_002392	69230449 – 69230531
MDM2	NM_002392	69233051 – 69233631
MLH1	NM_000249	37035036 – 37035156
MLH1	NM_000249	37038107 – 37038202
MLH1	NM_000249	37042443 – 37042546
MLH1	NM_000249	37045889 – 37045967
MLH1	NM_000249	37048479 – 37048556
MLH1	NM_000249	37050302 – 37050398
MLH1	NM_000249	37053308 – 37053355

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
MLH1	NM_000249	37053499 – 37053592
MLH1	NM_000249	37055920 – 37056037
MLH1	NM_000249	37058994 – 37059092
MLH1	NM_000249	37061798 – 37061956
MLH1	NM_000249	37067125 – 37067500
MLH1	NM_000249	37070272 – 37070425
MLH1	NM_000249	37081674 – 37081787
MLH1	NM_000249	37083756 – 37083824
MLH1	NM_000249	37089007 – 37089176
MLH1	NM_000249	37090005 – 37090102
MLH1	NM_000249	37090392 – 37090510
MLH1	NM_000249	37091974 – 37092146
MSH2	NM_000251	47630328 – 47630543
MSH2	NM_000251	47635537 – 47635696
MSH2	NM_000251	47637230 – 47637513
MSH2	NM_000251	47639550 – 47639701
MSH2	NM_000251	47641405 – 47641559
MSH2	NM_000251	47643432 – 47643570
MSH2	NM_000251	47656878 – 47657082
MSH2	NM_000251	47672684 – 47672798
MSH2	NM_000251	47690167 – 47690295
MSH2	NM_000251	47693794 – 47693949
MSH2	NM_000251	47698101 – 47698203
MSH2	NM_000251	47702161 – 47702411
MSH2	NM_000251	47703503 – 47703712
MSH2	NM_000251	47705408 – 47705660
MSH2	NM_000251	47707832 – 47708012
MSH2	NM_000251	47709915 – 47710090
MSH3	NM_002439	79950544 – 79950664
MSH3	NM_002439	79952227 – 79952352
MSH3	NM_002439	79960959 – 79961184
MSH3	NM_002439	79965913 – 79966130
MSH3	NM_002439	79968060 – 79968181
MSH3	NM_002439	79968557 – 79968679
MSH3	NM_002439	79970799 – 79970913
MSH3	NM_002439	79970914 – 79970949
MSH3	NM_002439	79974743 – 79974914
MSH3	NM_002439	80021269 – 80021386
MSH3	NM_002439	80024667 – 80024786
MSH3	NM_002439	80037280 – 80037369
MSH3	NM_002439	80040322 – 80040436
MSH3	NM_002439	80057362 – 80057499
MSH3	NM_002439	80063749 – 80063941
MSH3	NM_002439	80064651 – 80064824
MSH3	NM_002439	80071510 – 80071579
MSH3	NM_002439	80074536 – 80074657

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>MSH3</i>	NM_002439	80083381 – 80083493
<i>MSH3</i>	NM_002439	80088549 – 80088665
<i>MSH3</i>	NM_002439	80109400 – 80109562
<i>MSH3</i>	NM_002439	80149946 – 80150137
<i>MSH3</i>	NM_002439	80160629 – 80160763
<i>MSH3</i>	NM_002439	80168932 – 80169108
<i>MSH3</i>	NM_002439	80171567 – 80171683
<i>MSH6</i>	NM_000179	48010370 – 48010634
<i>MSH6</i>	NM_000179	48018063 – 48018264
<i>MSH6</i>	NM_000179	48023030 – 48023204
<i>MSH6</i>	NM_000179	48025747 – 48028296
<i>MSH6</i>	NM_000179	48030556 – 48030826
<i>MSH6</i>	NM_000179	48032046 – 48032168
<i>MSH6</i>	NM_000179	48032754 – 48032848
<i>MSH6</i>	NM_000179	48033340 – 48033499
<i>MSH6</i>	NM_000179	48033588 – 48033792
<i>MSH6</i>	NM_000179	48033915 – 48034001
<i>MYB</i>	NM_001161659	135502649 – 135502676
<i>MYB</i>	NM_001161659	135507038 – 135507160
<i>MYB</i>	NM_001161659	135508969 – 135509045
<i>MYB</i>	NM_001161659	135510926 – 135511023
<i>MYB</i>	NM_001161659	135511262 – 135511487
<i>MYB</i>	NM_001161659	135513459 – 135513698
<i>MYB</i>	NM_001161659	135514973 – 135515058
<i>MYB</i>	NM_001161659	135515491 – 135515600
<i>MYB</i>	NM_001161659	135516883 – 135517142
<i>MYB</i>	NM_001161659	135520043 – 135520190
<i>MYB</i>	NM_001161659	135521220 – 135521339
<i>MYB</i>	NM_001161659	135521425 – 135521555
<i>MYB</i>	NM_001161659	135524352 – 135524464
<i>MYB</i>	NM_001161659	135538999 – 135539120
<i>MYBL1</i>	NM_001080416	67476929 – 67477062
<i>MYBL1</i>	NM_001080416	67478296 – 67478480
<i>MYBL1</i>	NM_001080416	67478916 – 67479025
<i>MYBL1</i>	NM_001080416	67479108 – 67479229
<i>MYBL1</i>	NM_001080416	67484714 – 67484833
<i>MYBL1</i>	NM_001080416	67485596 – 67485743
<i>MYBL1</i>	NM_001080416	67488239 – 67488612
<i>MYBL1</i>	NM_001080416	67492365 – 67492603
<i>MYBL1</i>	NM_001080416	67504672 – 67504781
<i>MYBL1</i>	NM_001080416	67505352 – 67505431
<i>MYBL1</i>	NM_001080416	67507815 – 67507994
<i>MYBL1</i>	NM_001080416	67509562 – 67509787
<i>MYBL1</i>	NM_001080416	67511282 – 67511379
<i>MYBL1</i>	NM_001080416	67513930 – 67514006
<i>MYBL1</i>	NM_001080416	67514650 – 67514760
<i>MYBL1</i>	NM_001080416	67525051 – 67525075

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>MYC</i>	NM_002467	128748837 – 128748871
<i>MYC</i>	NM_002467	128750491 – 128751267
<i>MYC</i>	NM_002467	128752639 – 128753206
<i>MYCN</i>	NM_001293228	16082184 – 16082978
<i>MYCN</i>	NM_001293228	16085612 – 16086221
<i>NF1</i>	NM_001042492	29422325 – 29422389
<i>NF1</i>	NM_001042492	29482998 – 29483146
<i>NF1</i>	NM_001042492	29486025 – 29486113
<i>NF1</i>	NM_001042492	29490201 – 29490396
<i>NF1</i>	NM_001042492	29496906 – 29497017
<i>NF1</i>	NM_001042492	29508437 – 29508509
<i>NF1</i>	NM_001042492	29508725 – 29508805
<i>NF1</i>	NM_001042492	29509523 – 29509685
<i>NF1</i>	NM_001042492	29527437 – 29527615
<i>NF1</i>	NM_001042492	29528052 – 29528179
<i>NF1</i>	NM_001042492	29528426 – 29528505
<i>NF1</i>	NM_001042492	29533255 – 29533391
<i>NF1</i>	NM_001042492	29541466 – 29541605
<i>NF1</i>	NM_001042492	29546020 – 29546138
<i>NF1</i>	NM_001042492	29548865 – 29548949
<i>NF1</i>	NM_001042492	29550459 – 29550587
<i>NF1</i>	NM_001042492	29552110 – 29552270
<i>NF1</i>	NM_001042492	29553450 – 29553704
<i>NF1</i>	NM_001042492	29554233 – 29554311
<i>NF1</i>	NM_001042492	29554538 – 29554581
<i>NF1</i>	NM_001042492	29554582 – 29554588
<i>NF1</i>	NM_001042492	29554589 – 29554626
<i>NF1</i>	NM_001042492	29556040 – 29556485
<i>NF1</i>	NM_001042492	29556850 – 29556994
<i>NF1</i>	NM_001042492	29557275 – 29557402
<i>NF1</i>	NM_001042492	29557857 – 29557945
<i>NF1</i>	NM_001042492	29559088 – 29559209
<i>NF1</i>	NM_001042492	29559715 – 29559901
<i>NF1</i>	NM_001042492	29560017 – 29560233
<i>NF1</i>	NM_001042492	29562626 – 29562792
<i>NF1</i>	NM_001042492	29562933 – 29563041
<i>NF1</i>	NM_001042492	29575999 – 29576139
<i>NF1</i>	NM_001042492	29579953 – 29580020
<i>NF1</i>	NM_001042492	29585359 – 29585522
<i>NF1</i>	NM_001042492	29586047 – 29586149
<i>NF1</i>	NM_001042492	29587384 – 29587535
<i>NF1</i>	NM_001042492	29588726 – 29588877
<i>NF1</i>	NM_001042492	29592244 – 29592359
<i>NF1</i>	NM_001042492	29652835 – 29653272
<i>NF1</i>	NM_001042492	29654514 – 29654859
<i>NF1</i>	NM_001042492	29657311 – 29657518

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>NF1</i>	NM_001042492	29661853 – 29662051
<i>NF1</i>	NM_001042492	29663348 – 29663493
<i>NF1</i>	NM_001042492	29663650 – 29663934
<i>NF1</i>	NM_001042492	29664383 – 29664602
<i>NF1</i>	NM_001042492	29664834 – 29664900
<i>NF1</i>	NM_001042492	29665040 – 29665159
<i>NF1</i>	NM_001042492	29665719 – 29665825
<i>NF1</i>	NM_001042492	29667520 – 29667665
<i>NF1</i>	NM_001042492	29670024 – 29670155
<i>NF1</i>	NM_001042492	29676135 – 29676271
<i>NF1</i>	NM_001042492	29677198 – 29677338
<i>NF1</i>	NM_001042492	29679272 – 29679434
<i>NF1</i>	NM_001042492	29683475 – 29683602
<i>NF1</i>	NM_001042492	29683975 – 29684110
<i>NF1</i>	NM_001042492	29684284 – 29684389
<i>NF1</i>	NM_001042492	29685495 – 29685642
<i>NF1</i>	NM_001042492	29685984 – 29686035
<i>NF1</i>	NM_001042492	29687502 – 29687723
<i>NF1</i>	NM_001042492	29701028 – 29701175
<i>NF2</i>	NM_000268	29999985 – 30000103
<i>NF2</i>	NM_000268	30032737 – 30032848
<i>NF2</i>	NM_000268	30032849 – 30032867
<i>NF2</i>	NM_000268	30035076 – 30035203
<i>NF2</i>	NM_000268	30038188 – 30038276
<i>NF2</i>	NM_000268	30050643 – 30050716
<i>NF2</i>	NM_000268	30051580 – 30051667
<i>NF2</i>	NM_000268	30054175 – 30054255
<i>NF2</i>	NM_000268	30057191 – 30057330
<i>NF2</i>	NM_000268	30060976 – 30061055
<i>NF2</i>	NM_000268	30064319 – 30064437
<i>NF2</i>	NM_000268	30067812 – 30067939
<i>NF2</i>	NM_000268	30069255 – 30069477
<i>NF2</i>	NM_000268	30070822 – 30070932
<i>NF2</i>	NM_000268	30074182 – 30074314
<i>NF2</i>	NM_000268	30077425 – 30077592
<i>NF2</i>	NM_000268	30090738 – 30090793
<i>NOTCH1</i>	NM_017617	139390520 – 139392012
<i>NOTCH1</i>	NM_017617	139393348 – 139393450
<i>NOTCH1</i>	NM_017617	139393561 – 139393713
<i>NOTCH1</i>	NM_017617	139395001 – 139395301
<i>NOTCH1</i>	NM_017617	139396197 – 139396367
<i>NOTCH1</i>	NM_017617	139396450 – 139396542
<i>NOTCH1</i>	NM_017617	139396721 – 139396942
<i>NOTCH1</i>	NM_017617	139397631 – 139397784
<i>NOTCH1</i>	NM_017617	139399122 – 139399558
<i>NOTCH1</i>	NM_017617	139399759 – 139400335

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>NOTCH1</i>	NM_017617	139400976 – 139401093
<i>NOTCH1</i>	NM_017617	139401165 – 139401427
<i>NOTCH1</i>	NM_017617	139401754 – 139401891
<i>NOTCH1</i>	NM_017617	139402404 – 139402593
<i>NOTCH1</i>	NM_017617	139402681 – 139402839
<i>NOTCH1</i>	NM_017617	139403319 – 139403525
<i>NOTCH1</i>	NM_017617	139404182 – 139404415
<i>NOTCH1</i>	NM_017617	139405102 – 139405259
<i>NOTCH1</i>	NM_017617	139405601 – 139405725
<i>NOTCH1</i>	NM_017617	139407470 – 139407588
<i>NOTCH1</i>	NM_017617	139407841 – 139407991
<i>NOTCH1</i>	NM_017617	139408959 – 139409156
<i>NOTCH1</i>	NM_017617	139409739 – 139409854
<i>NOTCH1</i>	NM_017617	139409932 – 139410170
<i>NOTCH1</i>	NM_017617	139410430 – 139410548
<i>NOTCH1</i>	NM_017617	139411721 – 139411839
<i>NOTCH1</i>	NM_017617	139412201 – 139412391
<i>NOTCH1</i>	NM_017617	139412586 – 139412746
<i>NOTCH1</i>	NM_017617	139413040 – 139413278
<i>NOTCH1</i>	NM_017617	139413892 – 139414019
<i>NOTCH1</i>	NM_017617	139417299 – 139417642
<i>NOTCH1</i>	NM_017617	139418166 – 139418433
<i>NOTCH1</i>	NM_017617	139438473 – 139438556
<i>NOTCH1</i>	NM_017617	139440175 – 139440240
<i>NOTCH2</i>	NM_024408	120457926 – 120459319
<i>NOTCH2</i>	NM_024408	120460285 – 120460387
<i>NOTCH2</i>	NM_024408	120461026 – 120461178
<i>NOTCH2</i>	NM_024408	120461932 – 120462238
<i>NOTCH2</i>	NM_024408	120462849 – 120463022
<i>NOTCH2</i>	NM_024408	120464333 – 120464434
<i>NOTCH2</i>	NM_024408	120464856 – 120465071
<i>NOTCH2</i>	NM_024408	120465256 – 120465403
<i>NOTCH2</i>	NM_024408	120466257 – 120466609
<i>NOTCH2</i>	NM_024408	120467925 – 120468435
<i>NOTCH2</i>	NM_024408	120469119 – 120469236
<i>NOTCH2</i>	NM_024408	120471596 – 120471837
<i>NOTCH2</i>	NM_024408	120478092 – 120478229
<i>NOTCH2</i>	NM_024408	120479902 – 120480091
<i>NOTCH2</i>	NM_024408	120480477 – 120480635
<i>NOTCH2</i>	NM_024408	120483175 – 120483381
<i>NOTCH2</i>	NM_024408	120484146 – 120484379
<i>NOTCH2</i>	NM_024408	120491034 – 120491191
<i>NOTCH2</i>	NM_024408	120491627 – 120491751
<i>NOTCH2</i>	NM_024408	120493344 – 120493462
<i>NOTCH2</i>	NM_024408	120496163 – 120496313
<i>NOTCH2</i>	NM_024408	120497660 – 120497857

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
NOTCH2	NM_024408	120502012 – 120502127
NOTCH2	NM_024408	120506194 – 120506432
NOTCH2	NM_024408	120508073 – 120508191
NOTCH2	NM_024408	120508996 – 120509114
NOTCH2	NM_024408	120510053 – 120510246
NOTCH2	NM_024408	120510697 – 120510857
NOTCH2	NM_024408	120512131 – 120512369
NOTCH2	NM_024408	120529580 – 120529707
NOTCH2	NM_024408	120539617 – 120539957
NOTCH2	NM_024408	120547949 – 120548017
NRAS	NM_002524	115251153 – 115251277
NRAS	NM_002524	115252187 – 115252351
NRAS	NM_002524	115256418 – 115256601
NRAS	NM_002524	115258668 – 115258783
PARP1	NM_001618	226549158 – 226549244
PARP1	NM_001618	226549667 – 226549786
PARP1	NM_001618	226550797 – 226550863
PARP1	NM_001618	226551641 – 226551773
PARP1	NM_001618	226552700 – 226552857
PARP1	NM_001618	226553652 – 226553755
PARP1	NM_001618	226555178 – 226555311
PARP1	NM_001618	226555897 – 226556024
PARP1	NM_001618	226558132 – 226558220
PARP1	NM_001618	226561924 – 226562057
PARP1	NM_001618	226564806 – 226565006
PARP1	NM_001618	226566840 – 226566977
PARP1	NM_001618	226567271 – 226567344
PARP1	NM_001618	226567620 – 226567867
PARP1	NM_001618	226568766 – 226568911
PARP1	NM_001618	226570734 – 226570886
PARP1	NM_001618	226573202 – 226573383
PARP1	NM_001618	226574024 – 226574145
PARP1	NM_001618	226576354 – 226576458
PARP1	NM_001618	226578108 – 226578327
PARP1	NM_001618	226579897 – 226580017
PARP1	NM_001618	226589912 – 226590082
PARP1	NM_001618	226595508 – 226595632
PDGFRA	NM_006206	55124933 – 55124986
PDGFRA	NM_006206	55127259 – 55127581
PDGFRA	NM_006206	55129831 – 55130096
PDGFRA	NM_006206	55131083 – 55131218
PDGFRA	NM_006206	55133453 – 55133629
PDGFRA	NM_006206	55133716 – 55133910
PDGFRA	NM_006206	55136797 – 55136917
PDGFRA	NM_006206	55138558 – 55138689
PDGFRA	NM_006206	55139701 – 55139899

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
PDGFRA	NM_006206	55140695 – 55140794
PDGFRA	NM_006206	55141005 – 55141142
PDGFRA	NM_006206	55143552 – 55143661
PDGFRA	NM_006206	55144060 – 55144175
PDGFRA	NM_006206	55144526 – 55144684
PDGFRA	NM_006206	55146480 – 55146651
PDGFRA	NM_006206	55151535 – 55151655
PDGFRA	NM_006206	55152005 – 55152132
PDGFRA	NM_006206	55153594 – 55153710
PDGFRA	NM_006206	55154963 – 55155067
PDGFRA	NM_006206	55155173 – 55155283
PDGFRA	NM_006206	55156477 – 55156723
PDGFRA	NM_006206	55161289 – 55161441
PIK3C2B	NM_002646	204393977 – 204394170
PIK3C2B	NM_002646	204394738 – 204394871
PIK3C2B	NM_002646	204396773 – 204396884
PIK3C2B	NM_002646	204397264 – 204397350
PIK3C2B	NM_002646	204399046 – 204399168
PIK3C2B	NM_002646	204400794 – 204400923
PIK3C2B	NM_002646	204401325 – 204401531
PIK3C2B	NM_002646	204402441 – 204402555
PIK3C2B	NM_002646	204402918 – 204403079
PIK3C2B	NM_002646	204403564 – 204403738
PIK3C2B	NM_002646	204408060 – 204408201
PIK3C2B	NM_002646	204409317 – 204409451
PIK3C2B	NM_002646	204410596 – 204410693
PIK3C2B	NM_002646	204411651 – 204411763
PIK3C2B	NM_002646	204412542 – 204412727
PIK3C2B	NM_002646	204413193 – 204413292
PIK3C2B	NM_002646	204413456 – 204413554
PIK3C2B	NM_002646	204415081 – 204415274
PIK3C2B	NM_002646	204416561 – 204416708
PIK3C2B	NM_002646	204418310 – 204418426
PIK3C2B	NM_002646	204418975 – 204419147
PIK3C2B	NM_002646	204423794 – 204423921
PIK3C2B	NM_002646	204424981 – 204425181
PIK3C2B	NM_002646	204426162 – 204426200
PIK3C2B	NM_002646	204426853 – 204427004
PIK3C2B	NM_002646	204429003 – 204429071
PIK3C2B	NM_002646	204429449 – 204429533
PIK3C2B	NM_002646	204429675 – 204429791
PIK3C2B	NM_002646	204433137 – 204433262
PIK3C2B	NM_002646	204433575 – 204433734
PIK3C2B	NM_002646	204434344 – 204434449
PIK3C2B	NM_002646	204437995 – 204438932

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
PIK3CA	NM_006218	178916611 – 178916967
PIK3CA	NM_006218	178917475 – 178917689
PIK3CA	NM_006218	178919075 – 178919330
PIK3CA	NM_006218	178921329 – 178921579
PIK3CA	NM_006218	178922288 – 178922378
PIK3CA	NM_006218	178927380 – 178927490
PIK3CA	NM_006218	178927971 – 178928128
PIK3CA	NM_006218	178928216 – 178928355
PIK3CA	NM_006218	178935995 – 178936124
PIK3CA	NM_006218	178936981 – 178937067
PIK3CA	NM_006218	178937356 – 178937525
PIK3CA	NM_006218	178937734 – 178937842
PIK3CA	NM_006218	178938771 – 178938947
PIK3CA	NM_006218	178941866 – 178941977
PIK3CA	NM_006218	178942485 – 178942611
PIK3CA	NM_006218	178943747 – 178943830
PIK3CA	NM_006218	178947057 – 178947232
PIK3CA	NM_006218	178947789 – 178947911
PIK3CA	NM_006218	178948010 – 178948166
PIK3CA	NM_006218	178951879 – 178952154
PIK3R1	NM_181523	67522501 – 67522839
PIK3R1	NM_181523	67569215 – 67569312
PIK3R1	NM_181523	67569764 – 67569843
PIK3R1	NM_181523	67575427 – 67575563
PIK3R1	NM_181523	67576353 – 67576559
PIK3R1	NM_181523	67576752 – 67576836
PIK3R1	NM_181523	67588084 – 67588191
PIK3R1	NM_181523	67588926 – 67589029
PIK3R1	NM_181523	67589128 – 67589313
PIK3R1	NM_181523	67589534 – 67589664
PIK3R1	NM_181523	67590361 – 67590508
PIK3R1	NM_181523	67590973 – 67591154
PIK3R1	NM_181523	67591245 – 67591318
PIK3R1	NM_181523	67591996 – 67592171
PIK3R1	NM_181523	67593237 – 67593431
PIK3R2	NM_005027	18266687 – 18267013
PIK3R2	NM_005027	18271278 – 18271375
PIK3R2	NM_005027	18271726 – 18271781
PIK3R2	NM_005027	18271861 – 18271997
PIK3R2	NM_005027	18272086 – 18272307
PIK3R2	NM_005027	18272773 – 18272863
PIK3R2	NM_005027	18273009 – 18273122
PIK3R2	NM_005027	18273215 – 18273318
PIK3R2	NM_005027	18273774 – 18273959
PIK3R2	NM_005027	18274070 – 18274200
PIK3R2	NM_005027	18276967 – 18277114

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
PIK3R2	NM_005027	18277937 – 18278118
PIK3R2	NM_005027	18279282 – 18279358
PIK3R2	NM_005027	18279533 – 18279708
PIK3R2	NM_005027	18279894 – 18280106
POLE	NM_006231	133201280 – 133201398
POLE	NM_006231	133201488 – 133201582
POLE	NM_006231	133202228 – 133202358
POLE	NM_006231	133202700 – 133202905
POLE	NM_006231	133208898 – 133209096
POLE	NM_006231	133209247 – 133209383
POLE	NM_006231	133210769 – 133210966
POLE	NM_006231	133212475 – 133212612
POLE	NM_006231	133214597 – 133214727
POLE	NM_006231	133215708 – 133215886
POLE	NM_006231	133218230 – 133218439
POLE	NM_006231	133218760 – 133218985
POLE	NM_006231	133219089 – 133219317
POLE	NM_006231	133219403 – 133219584
POLE	NM_006231	133219807 – 133219918
POLE	NM_006231	133219990 – 133220148
POLE	NM_006231	133220420 – 133220565
POLE	NM_006231	133225512 – 133225660
POLE	NM_006231	133225889 – 133226103
POLE	NM_006231	133226260 – 133226477
POLE	NM_006231	133233719 – 133233846
POLE	NM_006231	133233932 – 133234017
POLE	NM_006231	133234451 – 133234558
POLE	NM_006231	133235878 – 133236097
POLE	NM_006231	133237552 – 133237752
POLE	NM_006231	133238110 – 133238272
POLE	NM_006231	133240587 – 133240736
POLE	NM_006231	133240953 – 133241050
POLE	NM_006231	133241885 – 133242038
POLE	NM_006231	133244086 – 133244236
POLE	NM_006231	133244939 – 133245090
POLE	NM_006231	133245218 – 133245325
POLE	NM_006231	133245394 – 133245527
POLE	NM_006231	133248798 – 133248910
POLE	NM_006231	133249210 – 133249427
POLE	NM_006231	133249747 – 133249865
POLE	NM_006231	133250158 – 133250295
POLE	NM_006231	133251981 – 133252105
POLE	NM_006231	133252318 – 133252408
POLE	NM_006231	133252677 – 133252792
POLE	NM_006231	133253129 – 133253241
POLE	NM_006231	133253946 – 133254031



*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>POLE</i>	NM_006231	133254161 – 133254307
<i>POLE</i>	NM_006231	133256080 – 133256239
<i>POLE</i>	NM_006231	133256537 – 133256634
<i>POLE</i>	NM_006231	133256761 – 133256810
<i>POLE</i>	NM_006231	133257190 – 133257275
<i>POLE</i>	NM_006231	133257721 – 133257867
<i>POLE</i>	NM_006231	133263837 – 133263903
<i>POLR2A</i>	NM_000937	7388081 – 7388178
<i>POLR2A</i>	NM_000937	7399257 – 7399394
<i>POLR2A</i>	NM_000937	7399526 – 7399667
<i>POLR2A</i>	NM_000937	7399756 – 7399934
<i>POLR2A</i>	NM_000937	7400080 – 7400366
<i>POLR2A</i>	NM_000937	7400672 – 7400838
<i>POLR2A</i>	NM_000937	7400966 – 7401191
<i>POLR2A</i>	NM_000937	7401394 – 7401531
<i>POLR2A</i>	NM_000937	7402355 – 7402484
<i>POLR2A</i>	NM_000937	7402597 – 7402812
<i>POLR2A</i>	NM_000937	7403955 – 7404169
<i>POLR2A</i>	NM_000937	7404256 – 7404429
<i>POLR2A</i>	NM_000937	7404605 – 7404704
<i>POLR2A</i>	NM_000937	7404842 – 7405050
<i>POLR2A</i>	NM_000937	7405216 – 7405443
<i>POLR2A</i>	NM_000937	7405834 – 7406022
<i>POLR2A</i>	NM_000937	7406437 – 7406613
<i>POLR2A</i>	NM_000937	7406701 – 7406811
<i>POLR2A</i>	NM_000937	7406902 – 7407112
<i>POLR2A</i>	NM_000937	7411567 – 7411796
<i>POLR2A</i>	NM_000937	7412260 – 7412511
<i>POLR2A</i>	NM_000937	7412848 – 7412953
<i>POLR2A</i>	NM_000937	7414531 – 7414640
<i>POLR2A</i>	NM_000937	7414722 – 7414909
<i>POLR2A</i>	NM_000937	7415127 – 7415335
<i>POLR2A</i>	NM_000937	7415474 – 7415665
<i>POLR2A</i>	NM_000937	7415793 – 7415911
<i>POLR2A</i>	NM_000937	7416090 – 7416244
<i>POLR2A</i>	NM_000937	7416337 – 7417498
<i>POT1</i>	NM_015450	124464013 – 124464130
<i>POT1</i>	NM_015450	124465303 – 124465413
<i>POT1</i>	NM_015450	124467265 – 124467361
<i>POT1</i>	NM_015450	124469305 – 124469398
<i>POT1</i>	NM_015450	124475330 – 124475470
<i>POT1</i>	NM_015450	124481024 – 124481234
<i>POT1</i>	NM_015450	124482858 – 124483019
<i>POT1</i>	NM_015450	124486993 – 124487054
<i>POT1</i>	NM_015450	124491923 – 124492007
<i>POT1</i>	NM_015450	124493023 – 124493194

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>POT1</i>	NM_015450	124499008 – 124499168
<i>POT1</i>	NM_015450	124503401 – 124503696
<i>POT1</i>	NM_015450	124510962 – 124511097
<i>POT1</i>	NM_015450	124532317 – 124532436
<i>POT1</i>	NM_015450	124537216 – 124537229
<i>PPM1D</i>	NM_003620	58677773 – 58678249
<i>PPM1D</i>	NM_003620	58700879 – 58701112
<i>PPM1D</i>	NM_003620	58711211 – 58711340
<i>PPM1D</i>	NM_003620	58725250 – 58725445
<i>PPM1D</i>	NM_003620	58733957 – 58734204
<i>PPM1D</i>	NM_003620	58740353 – 58740915
<i>PRKAR1A</i>	NM_212471	66511538 – 66511719
<i>PRKAR1A</i>	NM_212471	66518894 – 66519069
<i>PRKAR1A</i>	NM_212471	66519863 – 66519959
<i>PRKAR1A</i>	NM_212471	66520154 – 66520220
<i>PRKAR1A</i>	NM_212471	66521050 – 66521101
<i>PRKAR1A</i>	NM_212471	66521892 – 66522055
<i>PRKAR1A</i>	NM_212471	66523978 – 66524043
<i>PRKAR1A</i>	NM_212471	66525008 – 66525134
<i>PRKAR1A</i>	NM_212471	66526058 – 66526144
<i>PRKAR1A</i>	NM_212471	66526415 – 66526592
<i>PTCH1</i>	NM_000264	98209191 – 98209192
<i>PTCH1</i>	NM_000264	98209192 – 98209735
<i>PTCH1</i>	NM_000264	98211348 – 98211607
<i>PTCH1</i>	NM_000264	98212120 – 98212224
<i>PTCH1</i>	NM_000264	98215757 – 98215904
<i>PTCH1</i>	NM_000264	98218555 – 98218697
<i>PTCH1</i>	NM_000264	98220292 – 98220577
<i>PTCH1</i>	NM_000264	98221879 – 98222067
<i>PTCH1</i>	NM_000264	98224135 – 98224282
<i>PTCH1</i>	NM_000264	98229395 – 98229709
<i>PTCH1</i>	NM_000264	98231030 – 98231437
<i>PTCH1</i>	NM_000264	98232092 – 98232215
<i>PTCH1</i>	NM_000264	98238313 – 98238443
<i>PTCH1</i>	NM_000264	98239038 – 98239141
<i>PTCH1</i>	NM_000264	98239826 – 98239986
<i>PTCH1</i>	NM_000264	98240334 – 98240470
<i>PTCH1</i>	NM_000264	98241279 – 98241431
<i>PTCH1</i>	NM_000264	98242248 – 98242374
<i>PTCH1</i>	NM_000264	98242669 – 98242872
<i>PTCH1</i>	NM_000264	98244228 – 98244324
<i>PTCH1</i>	NM_000264	98244413 – 98244487
<i>PTCH1</i>	NM_000264	98247964 – 98248158
<i>PTCH1</i>	NM_000264	98268686 – 98268883
<i>PTCH1</i>	NM_000264	98270440 – 98270645

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>PTCH2</i>	NM_003738	45288084 – 45288343
<i>PTCH2</i>	NM_003738	45288738 – 45288842
<i>PTCH2</i>	NM_003738	45288912 – 45289059
<i>PTCH2</i>	NM_003738	45291919 – 45292061
<i>PTCH2</i>	NM_003738	45292157 – 45292442
<i>PTCH2</i>	NM_003738	45292571 – 45292756
<i>PTCH2</i>	NM_003738	45292836 – 45292983
<i>PTCH2</i>	NM_003738	45293071 – 45293388
<i>PTCH2</i>	NM_003738	45293512 – 45293865
<i>PTCH2</i>	NM_003738	45293965 – 45294088
<i>PTCH2</i>	NM_003738	45294175 – 45294305
<i>PTCH2</i>	NM_003738	45294651 – 45294748
<i>PTCH2</i>	NM_003738	45294826 – 45294986
<i>PTCH2</i>	NM_003738	45295071 – 45295207
<i>PTCH2</i>	NM_003738	45295283 – 45295435
<i>PTCH2</i>	NM_003738	45295578 – 45295704
<i>PTCH2</i>	NM_003738	45296517 – 45296717
<i>PTCH2</i>	NM_003738	45297375 – 45297471
<i>PTCH2</i>	NM_003738	45297644 – 45297718
<i>PTCH2</i>	NM_003738	45297821 – 45298015
<i>PTCH2</i>	NM_003738	45307516 – 45307713
<i>PTCH2</i>	NM_003738	45308530 – 45308606
<i>PTEN</i>	NM_000314	89624224 – 89624307
<i>PTEN</i>	NM_000314	89653779 – 89653868
<i>PTEN</i>	NM_000314	89685267 – 89685316
<i>PTEN</i>	NM_000314	89690800 – 89690848
<i>PTEN</i>	NM_000314	89692767 – 89693010
<i>PTEN</i>	NM_000314	89711872 – 89712018
<i>PTEN</i>	NM_000314	89717607 – 89717778
<i>PTEN</i>	NM_000314	89720648 – 89720877
<i>PTEN</i>	NM_000314	89725041 – 89725084
<i>PTPN11</i>	NM_002834	112856913 – 112856931
<i>PTPN11</i>	NM_002834	112884077 – 112884204
<i>PTPN11</i>	NM_002834	112888119 – 112888318
<i>PTPN11</i>	NM_002834	112890996 – 112891193
<i>PTPN11</i>	NM_002834	112892365 – 112892486
<i>PTPN11</i>	NM_002834	112893751 – 112893869
<i>PTPN11</i>	NM_002834	112910745 – 112910846
<i>PTPN11</i>	NM_002834	112915452 – 112915536
<i>PTPN11</i>	NM_002834	112915658 – 112915821
<i>PTPN11</i>	NM_002834	112919875 – 112920011
<i>PTPN11</i>	NM_002834	112924276 – 112924435
<i>PTPN11</i>	NM_002834	112926244 – 112926316
<i>PTPN11</i>	NM_002834	112926825 – 112926981
<i>PTPN11</i>	NM_002834	112939945 – 112940062
<i>PTPN11</i>	NM_002834	112942496 – 112942570

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>PTPRD</i>	NM_002839	8317871 – 8317944
<i>PTPRD</i>	NM_002839	8319828 – 8319968
<i>PTPRD</i>	NM_002839	8331579 – 8331738
<i>PTPRD</i>	NM_002839	8338919 – 8339049
<i>PTPRD</i>	NM_002839	8340340 – 8340471
<i>PTPRD</i>	NM_002839	8341087 – 8341270
<i>PTPRD</i>	NM_002839	8341690 – 8341852
<i>PTPRD</i>	NM_002839	8375933 – 8376092
<i>PTPRD</i>	NM_002839	8376604 – 8376728
<i>PTPRD</i>	NM_002839	8389229 – 8389409
<i>PTPRD</i>	NM_002839	8404534 – 8404662
<i>PTPRD</i>	NM_002839	8436589 – 8436691
<i>PTPRD</i>	NM_002839	8449722 – 8449839
<i>PTPRD</i>	NM_002839	8460408 – 8460573
<i>PTPRD</i>	NM_002839	8465463 – 8465677
<i>PTPRD</i>	NM_002839	8470992 – 8471087
<i>PTPRD</i>	NM_002839	8484116 – 8484380
<i>PTPRD</i>	NM_002839	8485224 – 8485326
<i>PTPRD</i>	NM_002839	8485759 – 8486351
<i>PTPRD</i>	NM_002839	8492859 – 8492981
<i>PTPRD</i>	NM_002839	8497239 – 8497270
<i>PTPRD</i>	NM_002839	8499644 – 8499842
<i>PTPRD</i>	NM_002839	8500751 – 8501061
<i>PTPRD</i>	NM_002839	8504258 – 8504407
<i>PTPRD</i>	NM_002839	8507298 – 8507436
<i>PTPRD</i>	NM_002839	8517845 – 8518431
<i>PTPRD</i>	NM_002839	8521274 – 8521548
<i>PTPRD</i>	NM_002839	8523510 – 8523526
<i>PTPRD</i>	NM_002839	8524922 – 8525037
<i>PTPRD</i>	NM_002839	8526624 – 8526646
<i>PTPRD</i>	NM_002839	8527342 – 8527355
<i>PTPRD</i>	NM_002839	8528588 – 8528781
<i>PTPRD</i>	NM_002839	8633314 – 8633460
<i>PTPRD</i>	NM_002839	8636696 – 8636846
<i>PTPRD</i>	NM_002839	8733777 – 8733845
<i>QKI</i>	NM_006775	163836223 – 163836369
<i>QKI</i>	NM_006775	163876308 – 163876455
<i>QKI</i>	NM_006775	163899809 – 163899930
<i>QKI</i>	NM_006775	163956011 – 163956159
<i>QKI</i>	NM_006775	163983011 – 163983103
<i>QKI</i>	NM_006775	163984449 – 163984753
<i>QKI</i>	NM_006775	163987750 – 163987829
<i>QKI</i>	NM_006775	163991723 – 163991744
<i>RAF1</i>	NM_002880	12626010 – 12626158
<i>RAF1</i>	NM_002880	12626343 – 12626482
<i>RAF1</i>	NM_002880	12626618 – 12626754

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>RAF1</i>	NM_002880	12627177 – 12627300
<i>RAF1</i>	NM_002880	12629087 – 12629138
<i>RAF1</i>	NM_002880	12632294 – 12632475
<i>RAF1</i>	NM_002880	12633204 – 12633293
<i>RAF1</i>	NM_002880	12641187 – 12641309
<i>RAF1</i>	NM_002880	12641648 – 12641780
<i>RAF1</i>	NM_002880	12641884 – 12641916
<i>RAF1</i>	NM_002880	12645632 – 12645790
<i>RAF1</i>	NM_002880	12647697 – 12647800
<i>RAF1</i>	NM_002880	12650262 – 12650424
<i>RAF1</i>	NM_002880	12650729 – 12650836
<i>RAF1</i>	NM_002880	12653446 – 12653563
<i>RAF1</i>	NM_002880	12660011 – 12660222
<i>RB1</i>	NM_000321	48878046 – 48878187
<i>RB1</i>	NM_000321	48881413 – 48881544
<i>RB1</i>	NM_000321	48916732 – 48916852
<i>RB1</i>	NM_000321	48919213 – 48919337
<i>RB1</i>	NM_000321	48921958 – 48922001
<i>RB1</i>	NM_000321	48923089 – 48923161
<i>RB1</i>	NM_000321	48934150 – 48934265
<i>RB1</i>	NM_000321	48936948 – 48937095
<i>RB1</i>	NM_000321	48939027 – 48939109
<i>RB1</i>	NM_000321	48941627 – 48941741
<i>RB1</i>	NM_000321	48942660 – 48942742
<i>RB1</i>	NM_000321	48947538 – 48947630
<i>RB1</i>	NM_000321	48951051 – 48951172
<i>RB1</i>	NM_000321	48953727 – 48953788
<i>RB1</i>	NM_000321	48954186 – 48954222
<i>RB1</i>	NM_000321	48954298 – 48954379
<i>RB1</i>	NM_000321	48955380 – 48955581
<i>RB1</i>	NM_000321	49027126 – 49027249
<i>RB1</i>	NM_000321	49030337 – 49030487
<i>RB1</i>	NM_000321	49033821 – 49033971
<i>RB1</i>	NM_000321	49037864 – 49037973
<i>RB1</i>	NM_000321	49039131 – 49039249
<i>RB1</i>	NM_000321	49039338 – 49039506
<i>RB1</i>	NM_000321	49047493 – 49047528
<i>RB1</i>	NM_000321	49050834 – 49050981
<i>RB1</i>	NM_000321	49051488 – 49051542
<i>RB1</i>	NM_000321	49054131 – 49054209
<i>RELA</i>	NM_001243984	65421846 – 65422266
<i>RELA</i>	NM_001243984	65423156 – 65423235
<i>RELA</i>	NM_001243984	65423323 – 65423408
<i>RELA</i>	NM_001243984	65425755 – 65425972
<i>RELA</i>	NM_001243984	65426186 – 65426295
<i>RELA</i>	NM_001243984	65427134 – 65427270

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>RELA</i>	NM_001243984	65427592 – 65427688
<i>RELA</i>	NM_001243984	65429155 – 65429308
<i>RELA</i>	NM_001243984	65429405 – 65429561
<i>RELA</i>	NM_001243984	65429647 – 65429678
<i>RELA</i>	NM_001243984	65430294 – 65430305
<i>RPL5</i>	NM_000969	93297669 – 93297676
<i>RPL5</i>	NM_000969	93298943 – 93299017
<i>RPL5</i>	NM_000969	93299099 – 93299219
<i>RPL5</i>	NM_000969	93300333 – 93300472
<i>RPL5</i>	NM_000969	93301744 – 93301951
<i>RPL5</i>	NM_000969	93303010 – 93303192
<i>RPL5</i>	NM_000969	93306105 – 93306198
<i>RPL5</i>	NM_000969	93307320 – 93307424
<i>SDHA</i>	NM_004168	218468 – 218535
<i>SDHA</i>	NM_004168	223594 – 223685
<i>SDHA</i>	NM_004168	224472 – 224638
<i>SDHA</i>	NM_004168	225531 – 225679
<i>SDHA</i>	NM_004168	225995 – 226164
<i>SDHA</i>	NM_004168	228297 – 228450
<i>SDHA</i>	NM_004168	230988 – 231117
<i>SDHA</i>	NM_004168	233589 – 233762
<i>SDHA</i>	NM_004168	235256 – 235456
<i>SDHA</i>	NM_004168	240470 – 240593
<i>SDHA</i>	NM_004168	251104 – 251220
<i>SDHA</i>	NM_004168	251450 – 251585
<i>SDHA</i>	NM_004168	254505 – 254623
<i>SDHA</i>	NM_004168	256446 – 256537
<i>SDHB</i>	NM_003000	17345373 – 17345455
<i>SDHB</i>	NM_003000	17349100 – 17349227
<i>SDHB</i>	NM_003000	17350465 – 17350571
<i>SDHB</i>	NM_003000	17354241 – 17354362
<i>SDHB</i>	NM_003000	17355092 – 17355233
<i>SDHB</i>	NM_003000	17359552 – 17359642
<i>SDHB</i>	NM_003000	17371253 – 17371385
<i>SDHB</i>	NM_003000	17380440 – 17380516
<i>SDHC</i>	NM_003001	161284193 – 161284217
<i>SDHC</i>	NM_003001	161293401 – 161293462
<i>SDHC</i>	NM_003001	161298183 – 161298289
<i>SDHC</i>	NM_003001	161310381 – 161310447
<i>SDHC</i>	NM_003001	161326464 – 161326632
<i>SDHC</i>	NM_003001	161332116 – 161332225
<i>SDHD</i>	NM_003002	111957629 – 111957685
<i>SDHD</i>	NM_003002	111958578 – 111958699
<i>SDHD</i>	NM_003002	111959588 – 111959737
<i>SDHD</i>	NM_003002	111965526 – 111965696

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
SETD2	NM_014159	47058580 – 47058746
SETD2	NM_014159	47059125 – 47059231
SETD2	NM_014159	47061247 – 47061332
SETD2	NM_014159	47079153 – 47079269
SETD2	NM_014159	47084048 – 47084192
SETD2	NM_014159	47087974 – 47088113
SETD2	NM_014159	47098308 – 47098982
SETD2	NM_014159	47103650 – 47103838
SETD2	NM_014159	47108557 – 47108610
SETD2	NM_014159	47125207 – 47125874
SETD2	NM_014159	47127682 – 47127806
SETD2	NM_014159	47129600 – 47129739
SETD2	NM_014159	47139442 – 47139573
SETD2	NM_014159	47142945 – 47143047
SETD2	NM_014159	47144833 – 47144915
SETD2	NM_014159	47147484 – 47147612
SETD2	NM_014159	47155363 – 47155496
SETD2	NM_014159	47158110 – 47158246
SETD2	NM_014159	47161669 – 47166040
SETD2	NM_014159	47168135 – 47168155
SETD2	NM_014159	47205341 – 47205416
SHH	NM_000193	155595593 – 155596422
SHH	NM_000193	155598987 – 155599253
SHH	NM_000193	155604514 – 155604818
SHOC2	NM_001269039	112724114 – 112724821
SHOC2	NM_001269039	112760170 – 112760305
SHOC2	NM_001269039	112764361 – 112764554
SHOC2	NM_001269039	112767286 – 112767413
SHOC2	NM_001269039	112769003 – 112769145
SHOC2	NM_001269039	112769468 – 112769590
SHOC2	NM_001269039	112771365 – 112771578
SMARCA4	NM_001128849	11094825 – 11095051
SMARCA4	NM_001128849	11095946 – 11096083
SMARCA4	NM_001128849	11096862 – 11097271
SMARCA4	NM_001128849	11097578 – 11097681
SMARCA4	NM_001128849	11098339 – 11098602
SMARCA4	NM_001128849	11099990 – 11100121
SMARCA4	NM_001128849	11101823 – 11102001
SMARCA4	NM_001128849	11105501 – 11105679
SMARCA4	NM_001128849	11106886 – 11107058
SMARCA4	NM_001128849	11107167 – 11107222
SMARCA4	NM_001128849	11113702 – 11113837
SMARCA4	NM_001128849	11114013 – 11114075
SMARCA4	NM_001128849	11118575 – 11118701
SMARCA4	NM_001128849	11121054 – 11121209
SMARCA4	NM_001128849	11123622 – 11123790

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
SMARCA4	NM_001128849	11129630 – 11129701
SMARCA4	NM_001128849	11130264 – 11130379
SMARCA4	NM_001128849	11132398 – 11132645
SMARCA4	NM_001128849	11134191 – 11134309
SMARCA4	NM_001128849	11135004 – 11135116
SMARCA4	NM_001128849	11136095 – 11136186
SMARCA4	NM_001128849	11136973 – 11137024
SMARCA4	NM_001128849	11138457 – 11138628
SMARCA4	NM_001128849	11141403 – 11141571
SMARCA4	NM_001128849	11143963 – 11144195
SMARCA4	NM_001128849	11144440 – 11144543
SMARCA4	NM_001128849	11144796 – 11144878
SMARCA4	NM_001128849	11145587 – 11145810
SMARCA4	NM_001128849	11150131 – 11150231
SMARCA4	NM_001128849	11151980 – 11152238
SMARCA4	NM_001128849	11168928 – 11169041
SMARCA4	NM_001128849	11169461 – 11169567
SMARCA4	NM_001128849	11170426 – 11170563
SMARCA4	NM_001128849	11170718 – 11170865
SMARCA4	NM_001128849	11172457 – 11172494
SMARCB1	NM_003073	24129354 – 24129451
SMARCB1	NM_003073	24133940 – 24134083
SMARCB1	NM_003073	24135743 – 24135877
SMARCB1	NM_003073	24143128 – 24143270
SMARCB1	NM_003073	24145479 – 24145611
SMARCB1	NM_003073	24158954 – 24159125
SMARCB1	NM_003073	24167409 – 24167604
SMARCB1	NM_003073	24175756 – 24175892
SMARCB1	NM_003073	24176325 – 24176369
SMARCE1	NM_003079	38785034 – 38785247
SMARCE1	NM_003079	38786963 – 38787178
SMARCE1	NM_003079	38787841 – 38787947
SMARCE1	NM_003079	38788444 – 38788621
SMARCE1	NM_003079	38792180 – 38792356
SMARCE1	NM_003079	38792644 – 38792780
SMARCE1	NM_003079	38793741 – 38793826
SMARCE1	NM_003079	38798704 – 38798813
SMARCE1	NM_003079	38801825 – 38801873
SMARCE1	NM_003079	38802045 – 38802056
SMO	NM_005631	128828990 – 128829325
SMO	NM_005631	128843222 – 128843432
SMO	NM_005631	128845041 – 128845255
SMO	NM_005631	128845448 – 128845625
SMO	NM_005631	128845988 – 128846212
SMO	NM_005631	128846302 – 128846430
SMO	NM_005631	128848597 – 128848694

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>SMO</i>	NM_005631	128849127 – 128849240
<i>SMO</i>	NM_005631	128850201 – 128850391
<i>SMO</i>	NM_005631	128850803 – 128850956
<i>SMO</i>	NM_005631	128851474 – 128851613
<i>SMO</i>	NM_005631	128851862 – 128852294
<i>SOS1</i>	NM_005633	39212962 – 39213458
<i>SOS1</i>	NM_005633	39214611 – 39214734
<i>SOS1</i>	NM_005633	39216408 – 39216457
<i>SOS1</i>	NM_005633	39222261 – 39222530
<i>SOS1</i>	NM_005633	39224060 – 39224181
<i>SOS1</i>	NM_005633	39224391 – 39224568
<i>SOS1</i>	NM_005633	39233550 – 39233672
<i>SOS1</i>	NM_005633	39234169 – 39234336
<i>SOS1</i>	NM_005633	39237722 – 39237846
<i>SOS1</i>	NM_005633	39239264 – 39239491
<i>SOS1</i>	NM_005633	39240598 – 39240706
<i>SOS1</i>	NM_005633	39241005 – 39241132
<i>SOS1</i>	NM_005633	39241903 – 39241989
<i>SOS1</i>	NM_005633	39249708 – 39250368
<i>SOS1</i>	NM_005633	39251148 – 39251280
<i>SOS1</i>	NM_005633	39262350 – 39262453
<i>SOS1</i>	NM_005633	39262528 – 39262643
<i>SOS1</i>	NM_005633	39278282 – 39278430
<i>SOS1</i>	NM_005633	39281752 – 39281966
<i>SOS1</i>	NM_005633	39283840 – 39284009
<i>SOS1</i>	NM_005633	39285811 – 39285947
<i>SOS1</i>	NM_005633	39294766 – 39294896
<i>SOS1</i>	NM_005633	39347474 – 39347565
<i>STAG2</i>	NM_001282418	123156475 – 123156523
<i>STAG2</i>	NM_001282418	123159687 – 123159770
<i>STAG2</i>	NM_001282418	123164808 – 123164977
<i>STAG2</i>	NM_001282418	123171374 – 123171475
<i>STAG2</i>	NM_001282418	123176416 – 123176497
<i>STAG2</i>	NM_001282418	123179011 – 123179220
<i>STAG2</i>	NM_001282418	123181201 – 123181357
<i>STAG2</i>	NM_001282418	123182852 – 123182930
<i>STAG2</i>	NM_001282418	123184033 – 123184161
<i>STAG2</i>	NM_001282418	123184968 – 123185071
<i>STAG2</i>	NM_001282418	123185162 – 123185246
<i>STAG2</i>	NM_001282418	123189975 – 123190087
<i>STAG2</i>	NM_001282418	123191713 – 123191829
<i>STAG2</i>	NM_001282418	123195071 – 123195193
<i>STAG2</i>	NM_001282418	123195618 – 123195726
<i>STAG2</i>	NM_001282418	123196749 – 123196846
<i>STAG2</i>	NM_001282418	123196963 – 123197057
<i>STAG2</i>	NM_001282418	123197695 – 123197903

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>STAG2</i>	NM_001282418	123199723 – 123199798
<i>STAG2</i>	NM_001282418	123200022 – 123200114
<i>STAG2</i>	NM_001282418	123200203 – 123200288
<i>STAG2</i>	NM_001282418	123202411 – 123202508
<i>STAG2</i>	NM_001282418	123204996 – 123205175
<i>STAG2</i>	NM_001282418	123210179 – 123210323
<i>STAG2</i>	NM_001282418	123211804 – 123211910
<i>STAG2</i>	NM_001282418	123215227 – 123215380
<i>STAG2</i>	NM_001282418	123217268 – 123217401
<i>STAG2</i>	NM_001282418	123220394 – 123220622
<i>STAG2</i>	NM_001282418	123224422 – 123224616
<i>STAG2</i>	NM_001282418	123227865 – 123227996
<i>STAG2</i>	NM_001282418	123229219 – 123229301
<i>STAG2</i>	NM_001282418	123234421 – 123234449
<i>STAT3</i>	NM_139276	40467760 – 40467820
<i>STAT3</i>	NM_139276	40468804 – 40468921
<i>STAT3</i>	NM_139276	40469197 – 40469244
<i>STAT3</i>	NM_139276	40474297 – 40474514
<i>STAT3</i>	NM_139276	40475019 – 40475163
<i>STAT3</i>	NM_139276	40475275 – 40475374
<i>STAT3</i>	NM_139276	40475588 – 40475645
<i>STAT3</i>	NM_139276	40476726 – 40476866
<i>STAT3</i>	NM_139276	40476978 – 40477081
<i>STAT3</i>	NM_139276	40478131 – 40478219
<i>STAT3</i>	NM_139276	40481425 – 40481477
<i>STAT3</i>	NM_139276	40481569 – 40481667
<i>STAT3</i>	NM_139276	40481762 – 40481796
<i>STAT3</i>	NM_139276	40483487 – 40483551
<i>STAT3</i>	NM_139276	40485688 – 40485785
<i>STAT3</i>	NM_139276	40485906 – 40486069
<i>STAT3</i>	NM_139276	40489450 – 40489606
<i>STAT3</i>	NM_139276	40489778 – 40489877
<i>STAT3</i>	NM_139276	40490746 – 40490832
<i>STAT3</i>	NM_139276	40491329 – 40491429
<i>STAT3</i>	NM_139276	40497574 – 40497677
<i>STAT3</i>	NM_139276	40498584 – 40498733
<i>STAT3</i>	NM_139276	40500404 – 40500536
<i>SUFU</i>	NM_016169	104263907 – 104264093
<i>SUFU</i>	NM_016169	104268923 – 104269062
<i>SUFU</i>	NM_016169	104309724 – 104309865
<i>SUFU</i>	NM_016169	104352336 – 104352483
<i>SUFU</i>	NM_016169	104353390 – 104353480
<i>SUFU</i>	NM_016169	104353747 – 104353824
<i>SUFU</i>	NM_016169	104356894 – 104357052
<i>SUFU</i>	NM_016169	104359187 – 104359303
<i>SUFU</i>	NM_016169	104375022 – 104375161

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>SUFU</i>	NM_016169	104377044 – 104377187
<i>SUFU</i>	NM_016169	104386929 – 104387002
<i>SUFU</i>	NM_016169	104389820 – 104389914
<i>TCF12</i>	NM_001322152	57212109 – 57212188
<i>TCF12</i>	NM_001322152	57213221 – 57213298
<i>TCF12</i>	NM_001322152	57355945 – 57356023
<i>TCF12</i>	NM_001322152	57383984 – 57384091
<i>TCF12</i>	NM_001322152	57458597 – 57458666
<i>TCF12</i>	NM_001322152	57484353 – 57484493
<i>TCF12</i>	NM_001322152	57489968 – 57490025
<i>TCF12</i>	NM_001322152	57523347 – 57523457
<i>TCF12</i>	NM_001322152	57524486 – 57524630
<i>TCF12</i>	NM_001322152	57524907 – 57525056
<i>TCF12</i>	NM_001322152	57526238 – 57526307
<i>TCF12</i>	NM_001322152	57535667 – 57535750
<i>TCF12</i>	NM_001322152	57543545 – 57543623
<i>TCF12</i>	NM_001322152	57544616 – 57544692
<i>TCF12</i>	NM_001322152	57545457 – 57545668
<i>TCF12</i>	NM_001322152	57554289 – 57554408
<i>TCF12</i>	NM_001322152	57555307 – 57555474
<i>TCF12</i>	NM_001322152	57565228 – 57565462
<i>TCF12</i>	NM_001322152	57574640 – 57574787
<i>TERT</i>	NM_198253	1253840 – 1253948
<i>TERT</i>	NM_198253	1254480 – 1254622
<i>TERT</i>	NM_198253	1255399 – 1255528
<i>TERT</i>	NM_198253	1258710 – 1258776
<i>TERT</i>	NM_198253	1260586 – 1260717
<i>TERT</i>	NM_198253	1264516 – 1264709
<i>TERT</i>	NM_198253	1266576 – 1266652
<i>TERT</i>	NM_198253	1268632 – 1268750
<i>TERT</i>	NM_198253	1271231 – 1271321
<i>TERT</i>	NM_198253	1272297 – 1272397
<i>TERT</i>	NM_198253	1278753 – 1278913
<i>TERT</i>	NM_198253	1279403 – 1279587
<i>TERT</i>	NM_198253	1280270 – 1280455
<i>TERT</i>	NM_198253	1282541 – 1282741
<i>TERT</i>	NM_198253	1293425 – 1294783
<i>TERT</i>	NM_198253	1294883 – 1295106
<i>TET1</i>	NM_030625	70332093 – 70334011
<i>TET1</i>	NM_030625	70360735 – 70360793
<i>TET1</i>	NM_030625	70404452 – 70406764
<i>TET1</i>	NM_030625	70411600 – 70411695
<i>TET1</i>	NM_030625	70412255 – 70412353
<i>TET1</i>	NM_030625	70426799 – 70427015
<i>TET1</i>	NM_030625	70432649 – 70432804
<i>TET1</i>	NM_030625	70441153 – 70441247

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>TET1</i>	NM_030625	70442590 – 70442732
<i>TET1</i>	NM_030625	70446110 – 70446466
<i>TET1</i>	NM_030625	70450562 – 70451573
<i>TET2</i>	NM_001127208	106155097 – 106158510
<i>TET2</i>	NM_001127208	106162493 – 106162588
<i>TET2</i>	NM_001127208	106163988 – 106164086
<i>TET2</i>	NM_001127208	106164724 – 106164937
<i>TET2</i>	NM_001127208	106180773 – 106180928
<i>TET2</i>	NM_001127208	106182913 – 106183007
<i>TET2</i>	NM_001127208	106190764 – 106190906
<i>TET2</i>	NM_001127208	106193718 – 106194077
<i>TET2</i>	NM_001127208	106196202 – 106197678
<i>TP53</i>	NM_000546	7572924 – 7573010
<i>TP53</i>	NM_000546	7573924 – 7574035
<i>TP53</i>	NM_000546	7576850 – 7576928
<i>TP53</i>	NM_000546	7577016 – 7577157
<i>TP53</i>	NM_000546	7577496 – 7577610
<i>TP53</i>	NM_000546	7578174 – 7578291
<i>TP53</i>	NM_000546	7578368 – 7578556
<i>TP53</i>	NM_000546	7579309 – 7579592
<i>TP53</i>	NM_000546	7579697 – 7579723
<i>TP53</i>	NM_000546	7579836 – 7579914
<i>TPTE2</i>	NM_130785	19997199 – 19997306
<i>TPTE2</i>	NM_130785	19999084 – 19999159
<i>TPTE2</i>	NM_130785	20000562 – 20000659
<i>TPTE2</i>	NM_130785	20004605 – 20004689
<i>TPTE2</i>	NM_130785	20006610 – 20006720
<i>TPTE2</i>	NM_130785	20010363 – 20010448
<i>TPTE2</i>	NM_130785	20012229 – 20012295
<i>TPTE2</i>	NM_130785	20024213 – 20024306
<i>TPTE2</i>	NM_130785	20024400 – 20024486
<i>TPTE2</i>	NM_130785	20025302 – 20025367
<i>TPTE2</i>	NM_130785	20038593 – 20038662
<i>TPTE2</i>	NM_130785	20039392 – 20039460
<i>TPTE2</i>	NM_130785	20039602 – 20039706
<i>TPTE2</i>	NM_130785	20048051 – 20048217
<i>TPTE2</i>	NM_130785	20066987 – 20067045
<i>TPTE2</i>	NM_130785	20067585 – 20067643
<i>TPTE2</i>	NM_130785	20077361 – 20077376
<i>TRAF7</i>	NM_032271	2213919 – 2214004
<i>TRAF7</i>	NM_032271	2215877 – 2215939
<i>TRAF7</i>	NM_032271	2218075 – 2218171
<i>TRAF7</i>	NM_032271	2220612 – 2220733
<i>TRAF7</i>	NM_032271	2221262 – 2221359
<i>TRAF7</i>	NM_032271	2221570 – 2221608
<i>TRAF7</i>	NM_032271	2222189 – 2222377

*Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel* (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>TRAF7</i>	NM_032271	2222463 – 2222602
<i>TRAF7</i>	NM_032271	2223180 – 2223402
<i>TRAF7</i>	NM_032271	2223479 – 2223557
<i>TRAF7</i>	NM_032271	2223786 – 2223837
<i>TRAF7</i>	NM_032271	2223919 – 2224051
<i>TRAF7</i>	NM_032271	2224249 – 2224336
<i>TRAF7</i>	NM_032271	2225109 – 2225153
<i>TRAF7</i>	NM_032271	2225299 – 2225420
<i>TRAF7</i>	NM_032271	2225498 – 2225625
<i>TRAF7</i>	NM_032271	2225832 – 2225956
<i>TRAF7</i>	NM_032271	2226047 – 2226183
<i>TRAF7</i>	NM_032271	2226263 – 2226387
<i>TRAF7</i>	NM_032271	2226558 – 2226577
<i>TSC1</i>	NM_000368	135771619 – 135772143
<i>TSC1</i>	NM_000368	135772568 – 135772734
<i>TSC1</i>	NM_000368	135772807 – 135772999
<i>TSC1</i>	NM_000368	135776099 – 135776226
<i>TSC1</i>	NM_000368	135776973 – 135777088
<i>TSC1</i>	NM_000368	135777989 – 135778176
<i>TSC1</i>	NM_000368	135779035 – 135779206
<i>TSC1</i>	NM_000368	135779795 – 135779843
<i>TSC1</i>	NM_000368	135780965 – 135781528
<i>TSC1</i>	NM_000368	135782115 – 135782224
<i>TSC1</i>	NM_000368	135782685 – 135782759
<i>TSC1</i>	NM_000368	135785955 – 135786081
<i>TSC1</i>	NM_000368	135786386 – 135786502
<i>TSC1</i>	NM_000368	135786837 – 135786957
<i>TSC1</i>	NM_000368	135787666 – 135787846
<i>TSC1</i>	NM_000368	135796747 – 135796825
<i>TSC1</i>	NM_000368	135797203 – 135797362
<i>TSC1</i>	NM_000368	135798732 – 135798881
<i>TSC1</i>	NM_000368	135800971 – 135801128
<i>TSC1</i>	NM_000368	135802585 – 135802693
<i>TSC1</i>	NM_000368	135804151 – 135804261
<i>TSC2</i>	NM_000548	2098614 – 2098756
<i>TSC2</i>	NM_000548	2100398 – 2100489
<i>TSC2</i>	NM_000548	2103340 – 2103455
<i>TSC2</i>	NM_000548	2104294 – 2104443
<i>TSC2</i>	NM_000548	2105400 – 2105522
<i>TSC2</i>	NM_000548	2106194 – 2106247
<i>TSC2</i>	NM_000548	2106642 – 2106772
<i>TSC2</i>	NM_000548	2107103 – 2107181
<i>TSC2</i>	NM_000548	2108745 – 2108876
<i>TSC2</i>	NM_000548	2110668 – 2110816
<i>TSC2</i>	NM_000548	2111869 – 2112011
<i>TSC2</i>	NM_000548	2112495 – 2112603

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
<i>TSC2</i>	NM_000548	2112970 – 2113056
<i>TSC2</i>	NM_000548	2114270 – 2114430
<i>TSC2</i>	NM_000548	2115517 – 2115638
<i>TSC2</i>	NM_000548	2120454 – 2120581
<i>TSC2</i>	NM_000548	2121508 – 2121619
<i>TSC2</i>	NM_000548	2121782 – 2121937
<i>TSC2</i>	NM_000548	2122239 – 2122366
<i>TSC2</i>	NM_000548	2122847 – 2122986
<i>TSC2</i>	NM_000548	2124198 – 2124392
<i>TSC2</i>	NM_000548	2125797 – 2125895
<i>TSC2</i>	NM_000548	2126066 – 2126173
<i>TSC2</i>	NM_000548	2126489 – 2126588
<i>TSC2</i>	NM_000548	2127596 – 2127729
<i>TSC2</i>	NM_000548	2129030 – 2129199
<i>TSC2</i>	NM_000548	2129274 – 2129431
<i>TSC2</i>	NM_000548	2129555 – 2129672
<i>TSC2</i>	NM_000548	2130163 – 2130380
<i>TSC2</i>	NM_000548	2131593 – 2131801
<i>TSC2</i>	NM_000548	2132434 – 2132507
<i>TSC2</i>	NM_000548	2133693 – 2133819
<i>TSC2</i>	NM_000548	2134226 – 2134718
<i>TSC2</i>	NM_000548	2134949 – 2135029
<i>TSC2</i>	NM_000548	2135228 – 2135325
<i>TSC2</i>	NM_000548	2136191 – 2136382
<i>TSC2</i>	NM_000548	2136730 – 2136874
<i>TSC2</i>	NM_000548	2137861 – 2137944
<i>TSC2</i>	NM_000548	2138046 – 2138142
<i>TSC2</i>	NM_000548	2138225 – 2138328
<i>TSC2</i>	NM_000548	2138444 – 2138613
<i>WRN</i>	NM_000553	30915961 – 30916061
<i>WRN</i>	NM_000553	30916666 – 30916783
<i>WRN</i>	NM_000553	30921802 – 30921952
<i>WRN</i>	NM_000553	30922428 – 30922581
<i>WRN</i>	NM_000553	30924546 – 30924700
<i>WRN</i>	NM_000553	30925771 – 30925845
<i>WRN</i>	NM_000553	30933686 – 30933805
<i>WRN</i>	NM_000553	30938380 – 30938814
<i>WRN</i>	NM_000553	30941261 – 30941297
<i>WRN</i>	NM_000553	30942721 – 30942764
<i>WRN</i>	NM_000553	30945289 – 30945438
<i>WRN</i>	NM_000553	30946403 – 30946483
<i>WRN</i>	NM_000553	30947978 – 30948050
<i>WRN</i>	NM_000553	30948347 – 30948460
<i>WRN</i>	NM_000553	30949343 – 30949416
<i>WRN</i>	NM_000553	30954281 – 30954368
<i>WRN</i>	NM_000553	30958362 – 30958473

## Targeted DNA Gene Regions Interrogated by Neuro-Oncology Panel (continued)

Gene	RefSeq Transcript <sup>1</sup>	Targeted Regions <sup>2</sup>
WRN	NM_000553	30969128 – 30969317
WRN	NM_000553	30973867 – 30974046
WRN	NM_000553	30977756 – 30977942
WRN	NM_000553	30982035 – 30982141
WRN	NM_000553	30982421 – 30982518
WRN	NM_000553	30989878 – 30990024
WRN	NM_000553	30998943 – 30999118
WRN	NM_000553	30999194 – 30999293
WRN	NM_000553	31000139 – 31000219
WRN	NM_000553	31001063 – 31001141
WRN	NM_000553	31004566 – 31004646
WRN	NM_000553	31004877 – 31004994
WRN	NM_000553	31007854 – 31007973
WRN	NM_000553	31012137 – 31012273
WRN	NM_000553	31014881 – 31015048
WRN	NM_000553	31024535 – 31024748
WRN	NM_000553	31030508 – 31030620
WT1	NM_024426	32410601 – 32410727
WT1	NM_024426	32413515 – 32413612
WT1	NM_024426	32414209 – 32414303
WT1	NM_024426	32417800 – 32417955
WT1	NM_024426	32421491 – 32421592
WT1	NM_024426	32438033 – 32438088
WT1	NM_024426	32439120 – 32439202
WT1	NM_024426	32449499 – 32449606
WT1	NM_024426	32450040 – 32450167
WT1	NM_024426	32456243 – 32456893
YAP1	NM_006106	101981577 – 101981902
YAP1	NM_006106	101984872 – 101985127
YAP1	NM_006106	102033184 – 102033304
YAP1	NM_006106	102076621 – 102076807
YAP1	NM_006106	102094350 – 102094485
YAP1	NM_006106	102098197 – 102098314
YAP1	NM_006106	102100430 – 102100673
ZBTB20	NM_015642	114057849 – 114058275
ZBTB20	NM_015642	114069118 – 114070707
TERT	NA	1295199 – 1295329

<sup>1</sup> Reference transcript numbers may have been updated due to database reversioning. Refer to the patient report for the most updated gene transcript information. Always refer to final reports for the gene transcript information that is pertinent to each patient at the time of testing.

<sup>2</sup> Default reportable range offset is +/- 2bps around each targeted exon region with the following exceptions: TERT promoter region coverage in addition to exonic coverage.

To verify if a specific region/exon/variant is covered by this assay, contact a laboratory genetic counselor at 800-533-1710.