Table S1. Somatic mutations detected in tumor biopsies.

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| **Tumorbiopsy** | | | | |
| **Gene** | **Position** | **Genotype** | **Amino acid substitution** | **PolyPhen-2 Function Prediction** |
| PIK3CD | Сhr1:9719965 | G/T | p.K400N | PROBABLY DAMAGING with a score of 1.000. |
| MTOR | Сhr1:11133080 | C/A | p.К1788N | PROBABLY DAMAGING with a score of 0.991 |
| MTOR | Сhr1:11212409 | A/G | p.I1155T | POSSIBLY DAMAGING with a score of 0.900 |
| MTOR | Chr1:11139566 | С/А | p.K1655N | POSSIBLY DAMAGING with a score of 0.991 |
| BCL10 | Сhr1:85270675 | G/A | p.Q97\* | stop gain |
| CD58 | Сhr1:116535974 | G/A | p.P207S | PROBABLY DAMAGING with a score of 1.000 |
| BCL9 | Сhr1:147620419 | C/G | p.S755\* | stopgain |
| ALK | Chr2: 29197576 | G/C | p.R1347G | PROBABLY DAMAGING with a score of 1.000 |
| ALK | Chr2:29226991 | C/A | p.E1000\* | stop gain |
| ALK | Chr2:29228951 | C/A | p.E916D | POSSIBLY DAMAGING with a score of 0.644 |
| ALK | Chr2:29233565 | C/A | p.K829N | PROBABLY DAMAGING with a score of 0.980 |
| ALK | Chr2:29233608 | G/A | p.A815V | PROBABLY DAMAGING with a score of 0.977 |
| XPO1 | Chr2:61492981 | C/A | p.V440F | PROBABLY DAMAGING with a score of 0.979 |
| XPO1 | Chr2:61502016 | A/C | p.L130V | POSSIBLY DAMAGING with a score of 0.941 |
| XPO1 | Chr2:61502268 | G/T | p.S115Y | POSSIBLY DAMAGING with a score of 0.936 |
| CD28 | Chr2:203729722 | G/T | p.V65F;  p.V162F | PROBABLY DAMAGING with a score of 1.000;  PROBABLY DAMAGING with a score of 0.975 |
| RHOA | Chr3:49362603G>T | G/T | p.P101T | PROBABLY DAMAGING with a score of 0.993 |
| RHOA | Chr3:49360261 | G/T | p.A177D | PROBABLY DAMAGING with a score of 0.998 |
| RHOA | Chr3: 49362607 | С/G | p.W99C | PROBABLY DAMAGING with a score of 1 |
| DTX3L | Chr3:122568945 | G/C | p.D286H | PROBABLY DAMAGING with a score of 0.997 |
| DTX3L | Chr3:122570448 | C/A |  | Splice Site Loss |
| PARP14 | Chr3:122727884 | G/T | p.G1672C | PROBABLY DAMAGING with a score of 1.000 |
| ATR | Chr3:142468053 | G/A | p.R2190C | PROBABLY DAMAGING with a score of 1.000 |
| ATR | Chr3:142496486 | G/C | p.L1925V | PROBABLY DAMAGING with a score of 1.000 |
| ATR | Chr3:142535136 C>T | C/T | p.V1297I | PROBABLY DAMAGING with a score of 0.967 |
| ATR | Chr3:142538528G >T | G/T | p.P1227T | PROBABLY DAMAGING with a score of 1.000 |
| ATR | Chr3:142562968A>T | A/T | p.L145H | PROBABLY DAMAGING with a score of 0.998 |
| ATR | Chr3:142566177G>T | G/T | p.S79Y | POSSIBLY DAMAGING with a score of 0.679 |
| ATR | Chr3:142485177 C>A | C/A | p.G2062C | PROBABLY DAMAGING with a score of 1.000 |
| TBL1XR1 | Chr3:177026405 | C/A | p.D496Y | PROBABLY DAMAGING with a score of 0.998 |
| TBL1XR1 | Chr3: 177046161 | C/A | p.G298V | PROBABLY DAMAGING with a score of 0.998 |
| PIK3CA | Chr3:179226040 G>T | G/T | p.R832L | PROBABLY DAMAGING with a score of 1.000 |
| PIK3CA | Chr3:179225968 | G/T | p.R808L | PROBABLY DAMAGING with a score of 1.000 |
| BCL6 | Chr3: 187728453 G>T | G/T | p.P483T | PROBABLY DAMAGING with a score of 1.000 |
| BCL6 | Chr3: 187728475 G>T | G/T | p.C475\* | stop gain |
| BCL6 | Chr3:187729549 G>А | G/A | p.P286S | PROBABLY DAMAGING with a score of 1.000 |
| ТР63 | Chr3:189738653 | С/А | p.S68\* | stop gain |
| MAP3K1 | Chr5:56881195 |  | p.L765fs\*8 | frameshift |
| MAP3K1 | Chr5:56882357 | С/А | p.P1053T | POSSIBLY DAMAGING with a score of 0.931 |
| IRF4 | Chr6:401606 | C/G | p.H310D | PROBABLY DAMAGING with a score of 0.985 |
| IRF4 | Chr6:405020 | C/G | p.L368V | PROBABLY DAMAGING with a score of 0.988 |
| CCND3 | Chr6:41935950 | A/C | p.I290R | POSSIBLY DAMAGING with a score of 0.769 |
| CCND3 | Chr6:41935982 | G/T | p.S279R | POSSIBLY DAMAGING with a score of 0.934 |
| TNFAIP3 | Chr6:137877093 | С/А | p.L275I | PROBABLY DAMAGING with a score of 0.999 |
| CARD11 | Chr7:2945919 | С/А | p.R86S | PROBABLY DAMAGING with a score of 0.997 |
| CDK6 | Chr7:92833211 | C/G | p.R38P | PROBABLY DAMAGING with a score of 0.999 |
| EZH2 | Chr7:148807697 | C/A | p.Q730H | PROBABLY DAMAGING with a score of 1.000 |
| EZH2 | Chr7:148816698 | C/A | p.K492N | PROBABLY DAMAGING with a score of 1.000 |
| EZH2 | Chr7:148826529 | A | p.L278fs\*43; p.L269fs\*38; p.L239fs\*38; p.L278fs\*38 | frameshift |
| RAD54B | Chr8:94378231 | C/A | p.V822F | POSSIBLY DAMAGING with a score of 0.846 |
| RAD54B | Chr8:94407595 | G/T | p.Q209R | POSSIBLY DAMAGING with a score of 0.773 |
| RAD54B | Chr8:94399475 | TT | p.S255fs\*19; p.S439fs\*19 | frameshift |
| RAD54B | Chr8:94391749 | C/A | p.E557\* | stop gain |
| MYC | Chr8:127740791 G>T | G/T | p.E400\*; p.E399\*; p.E385\* | stop gain |
| MYC | Chr8:127738390 | C/T | p.P43L | PROBABLY DAMAGING with a score of 1.000 |
| GATA3 | Chr10:8073813 | G/T | p.K374N | PROBABLY DAMAGING with a score of 0.999 |
| NFKB2 | Chr10:102397024G>T | G/T | p.V122F | PROBABLY DAMAGING with a score of 1.000 |
| NFKB2 | Chr10:102400102C>A | C/A | p.H498N | PROBABLY DAMAGING with a score of 0.999 |
| LRMP | Chr12:25107035 | G/A | p.W414\* | stop gain |
| DNMT3B | Chr20:32797297 | C/A | p.C400\*; p.C488\*; p.C434\*; p.C476\*; p.C496\* | stop gain |
| DNMT3B | Chr20:32798470 | G/T | p.V501L | PROBABLY DAMAGING with a score of 0.710 |
| BIRC3 | Chr11:102325179 | G/T | p.E224\* | stop gain |
| ATM | Chr11:108244066 | G/T | p.G204\*  p.E609\*  p.E642\* | stop gain |
| ATM | Chr11:108294987 | G/A | p.G1613R | PROBABLY DAMAGING with a score of 1.000 |
| ATM | Chr11:108299762 | C/T | p.T1685I | PROBABLY DAMAGING with a score of 0.996 |
| ATM | Chr11:108331927 | A\T | p.I2560L | POSSIBLY DAMAGING with a score of 0.925 |
| ATM | Chr11:108335080 | G/T | p.D2708Y | PROBABLY DAMAGING with a score of 1.000 |
| ATM | Chr11:108326184 | C/A | p.L2312I | PROBABLY DAMAGING with a score of 0.993 |
| ATM | Chr11:108332024 | C/A | p.S2592Y | PROBABLY DAMAGING with a score of 0.998 |
| CXCR5 | Chr11:118893951 | G/A | p.S136N | PROBABLY DAMAGING with a score of 0.998 |
| CXCR5 | Chr11:118894319 | A/G | p.R259G | PROBABLY DAMAGING with a score of 0.998 |
| IRAK4 | Chr12:43782450 | G/T | p.G362V | PROBABLY DAMAGING with a score of 1. |
| KMT2D | Chr12:49033672 | G/T | p.A3678D | PROBABLY DAMAGING with a score of 0.974 |
| KMT2D | Chr12:49034249 | G/T | p.L3520I | PROBABLY DAMAGING with a score of 0.999 |
| KMT2D | Chr12:49041666 | T/C | p.K2075E | PROBABLY DAMAGING with a score of 0.999 |
| KMT2D | Chr12:49050124 | A/T | p.L1155Q | PROBABLY DAMAGING with a score of 0.989 |
| KMT2D | Chr12:49054077 | G/T | p.L192I | PROBABLY DAMAGING with a score of 0.979 |
| KMT2D | Chr12:49031782 | G/T | p.T4308K | PROBABLY DAMAGING with a score of 0.915 |
| KMT2D | Chr12:49042170 | C/T | p.E2010K | PROBABLY DAMAGING with a score of 0.999 |
| STAT6 | Chr12:57097100 C>G | C/G | p.Q731H | PROBABLY DAMAGING with a score of 0.990 |
| STAT6 | Chr12:57098564 | G | p.P592fs\*31; p.P702fs\*31 | frameshift |
| AKT1 | Chr14:104770806 | G/T | p.D434E | PROBABLY DAMAGING with a score of 1.000 |
| CREBBP | Chr16:3739703 | C/T | p.M1385I | POSSIBLY DAMAGING with a score of 0.757 |
| CREBBP | Chr16:3793462 | G/T | p.C380\* | stop gain |
| BCL7C | Chr16:30888871 | G/T | p.L173M | PROBABLY DAMAGING with a score of 0.995 |
| MAP2K4 | Chr17:12113337 | G/T | p.A264S | PROBABLY DAMAGING with a score of 0.997 |
| DDX3X | ChrX:41334283 | G/T | p.G11W | PROBABLY DAMAGING with a score of 0.997 |
| DDX3X | ChrX:41341607 | C/A | p.S92\*; | stop gain |
| DDX3X | ChrX:41343776 | G/T | p.S240I | PROBABLY DAMAGING with a score of 1.000 |
| DDX3X | ChrX:41347329 | G/T | p.G650V | PROBABLY DAMAGING with a score of 0.982 |
| IRAK1 | ChrX:154012577 | C/A | p.D678Y | PROBABLY DAMAGING with a score of 0.944 |
| BCL3 | Chr19:44748887 | C/T | p.R33C | PROBABLY DAMAGING with a score of 0.972 |
| MLLT10 | Chr10:21726314 | C/A | p.S650\* | stop gain |
| MLLT10 | Chr10:21733960 | G/C | p.G897R | PROBABLY DAMAGING with a score of 0.987 |
| MLLT10 | Chr10:21673860 | C/G | p.T521R | PROBABLY DAMAGING with a score of 0.951 |
| DNTT | Chr10:96324305 | G/T | p.E264\* | stop gain |
| LMO2 | Chr11:33864617 | C/A | p.R81L | PROBABLY DAMAGING with a score of 0.997 |
| RAG1 | Chr11:36575111 | G/T | p.D603Y | PROBABLY DAMAGING with a score of 1 |
| KMT2A | Chr11:118496285 | G/T | p.S1858I | PROBABLY DAMAGING with a score of 0.994 |
| KMT2A | Chr11:118501753 | C/A | p.S2131Y | PROBABLY DAMAGING with a score of 0.989 |
| KMT2A | Chr11:118502486 | C/A | p.Y2195Q | PROBABLY DAMAGING with a score of 0.996 |
| KMT2A | Chr11:118519679 | G/T | p.Q3733H | PROBABLY DAMAGING with a score of 0.999 |
| KMT2A | Chr11:118521974 | C/A | p.F3904L | PROBABLY DAMAGING with a score of 1 |
| CCND2 | Chr12:4278808 | G/T | p.V154F | PROBABLY DAMAGING with a score of 0.994 |
| EIF4A1 | Chr17:7575119 | G/T | p.G69V | PROBABLY DAMAGING with a score of 0.999 |
| TNFRSF13B | Chr17:16939660 | C/A | p.G257\* | stop gain |
| MEF2B | Chr19:19146591 | G/T | p.L245M | PROBABLY DAMAGING with a score of 0.982 |
| MEF2B | Chr19:19150696 | G/A | p.Q14\* | stop gain |
| BAX | Chr19:48955580 | AG | p.G23fs\*9 p.G23fs\*38 | frameshift |
| JAK1 | Chr1:64850863 | G/T | p.P566T | PROBABLY DAMAGING with a score of 0.958 |
| JAK1 | Chr1:64844808 | G/T | p.P733T | PROBABLY DAMAGING with a score of 1 |
| NOTCH2 | Chr1:119923972 | G/T | p.Y1508\* | stop gain |
| NOTCH2 | Chr1:119955052 | C/A | p.G736V | PROBABLY DAMAGING with a score of 0.93 |
| BCR | Chr22:23273708 | C/A | p.N683K | PROBABLY DAMAGING with a score of 0.771 |
| BCR | Chr22:23290408 | G/T | p.S926I | PROBABLY DAMAGING with a score of 0.999 |
| DNMT3A | Chr2:25239146 | G/C | p.L798V | PROBABLY DAMAGING with a score of 0.990 |
| SF3B1 | Chr2:197392421 | C/A | p.W1266L | PROBABLY DAMAGING with a score of 0.999 |
| SF3B1 | Chr2:197400849 | C/A | p.E862\* | stop gain |
| SF3B1 | Chr2:197402760 | G/T | p.R625S | PROBABLY DAMAGING with a score of 1 |
| FOXP1 | Chr3:71197924 | G/T | p.P109T | PROBABLY DAMAGING with a score of 0.998 |
| FOXP1 | Chr3:71041370 | G/T | p.S276Y | PROBABLY DAMAGING with a score of 0.994 |
| LZTS1 | Chr8:20252920 | C/A | p.Q337H | PROBABLY DAMAGING with a score of 0.999 |
| LZTS1 | Chr8:20255179 | GGCC | p.G2fs\*6 | frameshift |
| FGFR1 | Chr8:38428403 | C/A | p.D131Y | PROBABLY DAMAGING with a score of 0.897 |
| MYBL1 | Chr8:66597414 | G/A | p.T143Y | PROBABLY DAMAGING with a score of 1 |