GTC-Solid Tumor Profile Plus test combines the analysis of DNA with RNA to provide comprehensive evaluation of cancer that includes detection of single nucleotide variation, copy number variation, expression and fusion. This include testing of abnormalities in 434 genes and expression/fusion in more than 60 genes.

GTC-Solid Tumor PLUS

Specimen Requirements:

-FFPE: 1 H&E slide and 6-8 unstained slides, 5-7 microns of tissue fixed with 10% NBF fixative. Please circle tumor for microdissection. Alternatively, the FFPE block can be sent for tumor circling and cutting at our laboratory.

Shipping:

Ship using cold pack. The cold pack should not directly contact specimen. Ship As soon as sample collected with overnight delivery.

Turn Around Time:

7-10 days

Tested Genes

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| **Genes Tested for Abnormalities in coding sequence** | | | | | | | | | | | | | | | | |
| ABCB7 | AURKB | C15ORF41 | CEBPA | DICER1 | FANCC | FLT3 | GRIN2A | IRF2 | LMO1 | MSH2 | NTRK1 | POLE | RANBP2 | SETD2 | STAT4 | TSC2 |
| ABL1 | AURKC | CALR | CHD2 | DOT1L | FANCD2 | FLT4 | GRM3 | IRF4 | LPIN2 | MSH6 | NTRK2 | POT1 | RARA | SF3B1 | STAT6 | TSHR |
| ABL2 | AXIN1 | CARD11 | CHD4 | EED | FANCE | FOXL2 | GSK3B | IRS2 | LRP1B | MTOR | NTRK3 | PPM1D | RB1 | SLIT2 | STK11 | U2AF1 |
| ACD | AXIN2 | CBFB | CHEK1 | EGFR | FANCF | FOXP1 | GSKIP | JAGN1 | LYN | MUTYH | NUP93 | PPP2R1A | RBBP6 | SLX4 | SUFU | U2AF2 |
| ACVR1B | AXL | CBL | CHEK2 | EGLN1 | FANCG | FRS2 | H3F3A | JAK1 | LYST | MVK | PAK3 | PRDM1 | RBM10 | SMAD2 | SUZ12 | VEGFA |
| ADA | B2M | CBLB | CIC | ELANE | FANCI | FUBP1 | HAX1 | JAK2 | LZTR1 | MYC | PALB2 | PREX2 | RBM8A | SMAD3 | SYK | VHL |
| AK2 | BAP1 | CBLC | CREBBP | EP300 | FANCL | G6PC3 | HGF | JAK3 | MAGI2 | MYCL | PARK2 | PRKAR1A | RET | SMAD4 | TAF1 | WAS |
| AKT1 | BARD1 | CCND1 | CRKL | EPAS1 | FANCM | GABRA6 | HIST1H3B | JUN | MAP2K1 | MYCN | PAX5 | PRKCI | RHEB | SMAD9 | TAL1 | WHSC1 |
| AKT2 | BCL2 | CCND2 | CRLF2 | EPCAM | FAS | GALNT12 | HNF1A | KAT6A | MAP2K2 | MYD88 | PBRM1 | PRKDC | RHOA | SMAD9L | TBX3 | WISP3 |
| AKT3 | BCL2L1 | CCND3 | CSF1R | EPHA3 | FAT1 | GATA1 | HOXA11 | KDM5A | MAP2K4 | NBN | PDCD1LG2 | PRSS1 | RICTOR | SMARCA4 | TCF3 | WT1 |
| ALK | BCL2L2 | CCNE1 | CSF3R | EPHA5 | FBXW7 | GATA2 | HOXB13 | KDM5C | MAP3K1 | NF1 | PDGFRA | PRSS8 | RIT1 | SMARCB1 | TCIRG1 | XPO1 |
| AMER1 | BCL6 | CD274 | CTC1 | EPHA7 | FGF10 | GATA3 | HRAS | KDM6A | MAP3K14 | NF2 | PDGFRB | PSTPIP1 | RNF168 | SMC1A | TERC | XRCC2 |
| ANKRD26 | BCOR | CD79A | CTCF | EPHB1 | FGF14 | GATA4 | HSD3B1 | KDR | MAPK1 | NFE2L2 | PDK1 | PTCH1 | RNF43 | SMC3 | TERF1 | XRCC3 |
| APC | BCORL1 | CD79B | CTNNA1 | ERBB2 | FGF19 | GATA6 | HSP90AA1 | KEAP1 | MCL1 | NFKBIA | PHF6 | PTEN | ROS1 | SMO | TERF2 | ZBTB2 |
| AR | BCR | CDAN1 | CTNNB1 | ERBB3 | FGF23 | GEN1 | ID3 | KEL | MDM2 | NHP2 | PIK3C2B | PTPN11 | RPTOR | SNCAIP | TERF2IP | ZNF217 |
| ARAF | BIRC3 | CDC73 | CUL3 | ERBB4 | FGF3 | GFI1 | IDH1 | KIF23 | MDM4 | NKX2-1 | PIK3CA | QKI | RTEL1 | SOCS1 | TERT | ZNF703 |
| ARFRP1 | BLM | CDH1 | CUX1 | ERCC4 | FGF4 | GFI1B | IDH2 | KIT | MED12 | NLRP3 | PIK3CB | RAB27A | RUNX1 | SOX10 | TET2 | ZRSR2 |
| ARID1A | BMPR1A | CDK12 | CXCR4 | ERG | FGF6 | GID4 | IGF1R | KLF1 | MEF2B | NME1 | PIK3CG | RAC1 | RUNX1T1 | SOX2 | TGFBR2 |  |
| ARID1B | BRAF | CDK4 | CYLD | ERRFI1 | FGFR1 | GLI1 | IGF2 | KLHL6 | MEFV | NOP10 | PIK3R1 | RAD21 | SBDS | SOX9 | TNFAIP3 |  |
| ARID2 | BRCA1 | CDK6 | DAXX | ESR1 | FGFR2 | GLI2 | IKBKE | KLLN | MEN1 | NOTCH1 | PIK3R2 | RAD50 | SBF2 | SPEN | TNFRSF14 |  |
| ASXL1 | BRCA2 | CDK8 | DDR2 | ETV6 | FGFR3 | GNA11 | IKZF1 | KMT2A | Merged | NOTCH2 | PIM1 | RAD51 | SDHA | SPOP | TNFRSF1A |  |
| ATG2B | BRD4 | CDKN1A | DDX11 | EXO1 | FGFR4 | GNA13 | IKZF3 | KMT2B | MET | NOTCH3 | PLCG1 | RAD51B | SDHB | SPTA1 | TOP1 |  |
| ATM | BRIP1 | CDKN1B | DDX41 | EZH2 | FH | GNAQ | IL2RG | KMT2C | MITF | NPM1 | PLCG2 | RAD51C | SDHC | SRC | TOP2A |  |
| ATR | BTG1 | CDKN2A | DKC1 | FAM175A | FLCN | GNAS | IL7R | KMT2D | MLH1 | NRAS | PMS1 | RAD51D | SDHD | SRSF2 | TP53 |  |
| ATRX | BTK | CDKN2B | DNM2 | FAM46C | FLI1 | GPR124 | INHBA | KRAS | MPL | NROB1 | PMS2 | RAD54L | SEC23B | STAG2 | TRAF3 |  |

Genes Tested for Fusion, Mutations, and Expression

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| **Fusion/Expression** | | | | | | | | | | | | | |
| ABL1 | BCL2 | CBFB | ERG | FGFR2 | FOXO1 | IKZF3 | MAP3K1 | NTRK1 | NUP98 | PICALM | RHOA | SS18 | TCF3 |
| AKT3 | BCL6 | CIC | ETV6 | FGFR3 | FUS | JAK2 | MECOM | NTRK2 | PDGFRA | PML | ROS1 | STAT6 | TFG |
| ALK | BRAF | CREBBP | EWSR1 | FIP1L1 | GLI1 | KIAA1549 | MYC | NTRK3 | PDGFRB | RARA | RUNX1 | TAFG | YWHAE |
| BCL1 | CAMTA1 | EGFR | FGFR1 | FLAG1 | HMGA2 | KMT2A | NOTCH1 | NUP214 | PD-L1 | RET | RUNX1T1 | TAL1 |  |