

# Labcorp® Plasma Complete RUO gene list

## with optional matched normal analysis

Labcorp Plasma Complete RUO is a comprehensive genomic profiling service for ctDNA that uses next-generation sequencing (NGS) to sequence the full coding region and specific introns of 521 genes to detect small variants and copy number alterations. It includes calculation of microsatellite instability (MSI), blood-based tumor mutational burden (bTMB) and loss of heterozygosity (LOH) genomic signatures.

| SNVs and indels (521 genes) |        |         |        |        |          |         |        |          |         |         |          |
|-----------------------------|--------|---------|--------|--------|----------|---------|--------|----------|---------|---------|----------|
| ABL1                        | BCL6   | CDKN2C  | EP400  | FGF23  | H1-2     | KEAP1   | MSH6   | PBRM1    | PTPRT   | SHLD1   | TLR9     |
| ABL2                        | BCOR   | CEBPA   | EPAS1  | FGF3   | H3-3A    | KEL     | MST1R  | PDCD1    | RAC1    | SHLD2   | TMPPRSS2 |
| ABRAXAS1                    | BCORL1 | CHEK1   | EPCAM  | FGF4   | H3-5     | KIT     | MTAP   | PDCD1LG2 | RAD21   | SLFN11  | TNFAIP3  |
| ACVR1                       | BCR    | CHEK2   | EPHA2  | FGF6   | H3C2     | KLF4    | MTOR   | PDGFRA   | RAD50   | SLX4    | TNFRSF14 |
| ACVR1B                      | BIRC3  | CIC     | EPHA3  | FGFR1  | HDAC1    | KMT2A   | MUTYH  | PDGFRB   | RAD51   | SMAD2   | TOP1     |
| ACVR2A                      | BIRC5  | CREBBP  | EPHA5  | FGFR2  | HDAC2    | KMT2B   | MYB    | PDK1     | RAD51B  | SMAD3   | TOP2A    |
| ADGRA2                      | BLM    | CRKL    | EPHB1  | FGFR3  | HDAC6    | KMT2C   | MYC    | PDPK1    | RAD51C  | SMAD4   | TP53     |
| ADORA2A                     | BMP1   | CRLF2   | EPHB4  | FGFR4  | HGF      | KMT2D   | MYCL   | PGR      | RAD51D  | SMARCA4 | TP53BP1  |
| AHCTF1                      | BMPR1A | CRTC1   | ERBB2  | FH     | HLA-A    | KRAS    | MYCN   | PHF6     | RAD52   | SMARCB1 | TP63     |
| AKT1                        | BRAF   | CSF1    | ERBB3  | FLCN   | HLA-B    | LATS1   | MYD88  | PHOX2B   | RAD54L  | SMC3    | TRAF3    |
| AKT2                        | BRCA1  | CSF1R   | ERBB4  | FLI1   | HLA-C    | LATS2   | MYOD1  | PIK3C2B  | RAF1    | SMO     | TSC1     |
| AKT3                        | BRCA2  | CSF2    | ERCC1  | FLT1   | HNF1A    | LRP1B   | NBEA   | PIK3C2G  | RARA    | SOC51   | TSC2     |
| ALB                         | BRD4   | CSF3R   | ERCC2  | FLT3   | HOXB13   | LTK     | NBN    | PIK3C3   | RASA1   | SOX10   | TSRH     |
| ALK                         | BRD7   | CTC1    | ERCC3  | FLT4   | HRAS     | LYN     | NCOA3  | PIK3CA   | RB1     | SOX17   | TYRO3    |
| ALMS1                       | BRIP1  | CTCF    | ERCC4  | FOXA1  | HSP90AA1 | LZTR1   | NCOR1  | PIK3CB   | RBM10   | SOX2    | U2AF1    |
| ALOX12B                     | BTG1   | CTLA4   | ERCC5  | FOXL2  | HUWE1    | MAD2L2  | NF1    | PIK3CD   | RECQL4  | SOX9    | UBE2T    |
| AMER1                       | BTG2   | CTNNA1  | ERCC6  | FOXO1  | ID3      | MAF     | NF2    | PIK3CG   | REL     | SPOP    | VEGFA    |
| APC                         | BTK    | CTNNB1  | ERCC8  | FOXP1  | IDH1     | MALT1   | NFE2L2 | PIK3R1   | RET     | SPTA1   | VHL      |
| AR                          | CALR   | CUL3    | ERG    | FUBP1  | IDH2     | MAML1   | NFKBIA | PIK3R2   | REV3L   | SRC     | VTCN1    |
| ARAF                        | CARD11 | CUL4A   | ERRFI1 | FZD1   | IGF1     | MAP2K1  | NKX2-1 | PIK3R3   | RFC1    | SRCAP   | WAS      |
| ARID1A                      | CASP8  | CXCR2   | ESR1   | FZD10  | IGF1R    | MAP2K2  | NKX3-1 | PIM1     | RHEB    | SRSF2   | WEE1     |
| ARID1B                      | CBFB   | CXCR4   | ETV1   | FZD2   | IGF2     | MAP2K4  | NOTCH1 | PLCG2    | RHOA    | STAG2   | WRN      |
| ARID2                       | CBL    | CYLD    | ETV4   | FZD3   | IGF2R    | MAP3K1  | NOTCH2 | PMAIP1   | RICTOR  | STAT3   | WT1      |
| ARID5B                      | CCND1  | CYP17A1 | ETV5   | FZD4   | IKBKE    | MAP3K13 | NOTCH3 | PMS1     | RIF1    | STK11   | XIAP     |
| ASXL1                       | CCND2  | DAXX    | ETV6   | FZD5   | IKZF1    | MAPK1   | NOTCH4 | PMS2     | RIT1    | STN1    | XPA      |
| ASXL2                       | CCND3  | DDIT3   | EWSR1  | FZD6   | IL10     | MAPK3   | NPM1   | POLD1    | RNF43   | SUFU    | XPC      |
| ATM                         | CCNE1  | DDR1    | EXO1   | FZD7   | IL6ST    | MAX     | NRAS   | POLE     | ROS1    | SUZ12   | XPO1     |
| ATR                         | CD22   | DDR2    | EZH2   | FZD8   | IL7R     | MCL1    | NSD1   | POLG     | RPA1    | SYK     | XRCC1    |
| ATRX                        | CD274  | DICER1  | FANCA  | FZD9   | INHBA    | MDC1    | NSD2   | POLQ     | RPS6KA3 | TAF1    | XRCC2    |
| AURKA                       | CD276  | DIS3    | FANCC  | GABRA6 | INPP4B   | MDM2    | NSD3   | PPARG    | RPS6KA4 | TBX3    | XRCC3    |
| AURKB                       | CD70   | DNMT1   | FANCD2 | GATA1  | INSR     | MDM4    | NTRK1  | PPM1D    | RPS6KB2 | TCF3    | XRCC4    |
| AXIN1                       | CD79A  | DNMT3A  | FANCE  | GATA2  | IRF2     | MED12   | NTRK2  | PPP2R1A  | RPTOR   | TCF7L2  | XRCC5    |
| AXIN2                       | CD79B  | DNMT3B  | FANCF  | GATA3  | IRF4     | MEF2B   | NTRK3  | PPP2R2A  | RUNX1   | TEK     | XRCC6    |
| AXL                         | CD73   | DOT1L   | FANCG  | GATA4  | IRS1     | MEN1    | NUP93  | PPP6C    | RUNX1T1 | TEN1    | YAP1     |
| B2M                         | CDH1   | E2F3    | FANCI  | GATA6  | IRS2     | MERTK   | NUTM1  | PRDM1    | SDHA    | TENT5C  | YES1     |
| BAP1                        | CDK12  | EED     | FANCL  | GLI1   | JAK1     | MET     | PAK1   | PREX2    | SDHAF2  | TERC    | ZNF217   |
| BARD1                       | CDK2   | EEF1A1  | FANCM  | GNA11  | JAK2     | MITF    | PAK5   | PRKAR1A  | SDHB    | TERT    | ZRSR2    |
| BAX                         | CDK4   | EGFR    | FAS    | GNA13  | JAK3     | MLC1    | PALB2  | PRKDC    | SDHC    | TET1    |          |
| BBC3                        | CDK6   | EIF1AX  | FAT1   | GNAQ   | JUN      | MLH1    | PARG   | PRKN     | SDHD    | TET2    |          |
| BCL10                       | CDK8   | EIF4E   | FBXW7  | GNAS   | KAT6A    | MLH3    | PARP1  | PTCH1    | SETBP1  | TGFB1   |          |
| BCL2                        | CDKN1A | ELF3    | FGF10  | GPC3   | KDM5A    | MPL     | PARP2  | PTEN     | SETD2   | TGFB2   |          |
| BCL2L1                      | CDKN1B | EML4    | FGF12  | GREM1  | KDM5C    | MRE11   | PAX5   | PTK2     | SF3B1   | TLR4    |          |
| BCL2L11                     | CDKN2A | EMSY    | FGF14  | GRIN2A | KDM6A    | MSH2    | PAX8   | PTPN11   | SGK1    | TLR7    |          |
| BCL2L2                      | CDKN2B | EP300   | FGF19  | GSK3B  | KDR      | MSH3    | PAXIP1 | PTPRD    | SH2D1A  | TLR8    |          |

| Amplifications (38 genes) |       |        |        |       |       |      |        |        |       |  |  |
|---------------------------|-------|--------|--------|-------|-------|------|--------|--------|-------|--|--|
| AXL                       | CCND2 | CDK4   | ERBB2  | FGF4  | FGFR4 | MET  | MYC    | PIK3CA | RB1   |  |  |
| BRCA1                     | CCND3 | CDKN2A | ERRFI1 | FGFR1 | KDR   | MLC1 | MYCN   | PIK3CB | VEGFA |  |  |
| BRCA2                     | CCNE1 | CDKN2B | FGF19  | FGFR2 | KIT   | MLH1 | PALB2  | PIK3R1 |       |  |  |
| CCND1                     | CD274 | EGFR   | FGF3   | FGFR3 | MDM2  | MSH2 | PDGFRA | PTEN   |       |  |  |

| Translocations (21 genes) |       |       |      |       |       |       |        |        |      |          |  |
|---------------------------|-------|-------|------|-------|-------|-------|--------|--------|------|----------|--|
| ALK                       | BRAF  | BRCA2 | ETV4 | EWSR1 | FGFR2 | NTRK1 | NTRK3  | PDGFRB | RET  | TMPPRSS2 |  |
| AXL                       | BRCA1 | EGFR  | ETV6 | FGFR1 | FGFR3 | NTRK2 | PDGFRA | RAF1   | ROS1 |          |  |