

# Lumera™ Xpanded Solid Tumor Profile Gene List

The Lumera Xpanded Solid Tumor Profile covers the same gene list as our Lumera Solid Tumor NGS Profile, which includes both DNA sequencing (521 genes) and RNA sequencing (55 genes). 59 genes are measured for copy number variation (CNV). The assay is capable of >95% detection sensitivity of DNA variants down to 2.5% at standard (80ng) and low (40ng) input, exceeding Illumina's published specifications. The Xpanded analysis also covers tumor mutational burden (TMB), microsatellite instability (MSI), and RNA fusions and missplicing.

**Sensitivity: ≥ 99% | Specificity: 99.99% | Mean Coverage >1000x**

|          |        |         |        |        |          |        |         |          |         |         |         |          |
|----------|--------|---------|--------|--------|----------|--------|---------|----------|---------|---------|---------|----------|
| ABL1     | BCL6   | CHD2    | EMSY   | FGF23  | GRM3     | INHA   | MAP3K1  | NFE2L2   | PIK3CD  | RAD52   | SMARCB1 | TMPRSS2  |
| ABL2     | BCOR   | CHD4    | EP300  | FGF3   | GSK3B    | INHBA  | MAP3K13 | NFKBIA   | PIK3CG  | RAD54L  | SMARCD1 | TNFAIP3  |
| ABRAXAS1 | BCORL1 | CHEK1   | EPCAM  | FGF4   | H3F3A    | INPP4A | MAP3K14 | NKX2-1   | PIK3R1  | RAF1    | SMC1A   | TNFRSF14 |
| ACVR1    | BCR    | CHEK2   | EPHA3  | FGF5   | H3F3B    | INPP4B | MAP3K4  | NKX3-1   | PIK3R2  | RANBP2  | SMC3    | TOP1     |
| ACVR1B   | BIRC3  | CIC     | EPHA5  | FGF6   | H3F3C    | INSR   | MAPK1   | NOTCH1   | PIK3R3  | RARA    | SMO     | TOP2A    |
| ADGRA2   | BLM    | COP1    | EPHA7  | FGF7   | HGF      | IRF2   | MAPK3   | NOTCH2   | PIM1    | RASA1   | SNCAIP  | TP53     |
| AKT1     | BMPRIA | CREBBP  | EPHB1  | FGF8   | H1-2     | IRF4   | MAX     | NOTCH3   | PLCG2   | RB1     | SOCS1   | TP63     |
| AKT2     | BRAF   | CRKL    | ERBB2  | FGF9   | H2BC5    | IRS1   | MCL1    | NOTCH4   | PLK2    | RBM10   | SOX10   | TRAF2    |
| AKT3     | BRCA1  | CRLF2   | ERBB3  | FGFR1  | H3C1     | IRS2   | MDC1    | NPM1     | PMAIP1  | RECQL4  | SOX17   | TRAF7    |
| ALK      | BRCA2  | CSF1R   | ERBB4  | FGFR2  | H3C2     | JAK1   | MDM2    | NRAS     | PMS1    | REL     | SOX2    | TSC1     |
| ALOX12B  | BRD4   | CSF3R   | ERCC1  | FGFR3  | H3C3     | JAK2   | MDM4    | NRG1     | PMS2    | RET     | SOX9    | TSC2     |
| AMER1    | BRIP1  | CSNK1A1 | ERCC2  | FGFR4  | H3C4     | JAK3   | MED12   | NSD1     | PNRC1   | RHEB    | SPEN    | TSHR     |
| ANKRD11  | BTG1   | CTCF    | ERCC3  | FH     | H3C6     | JUN    | MEF2B   | NTRK1    | POLD1   | RHOA    | SPOP    | U2AF1    |
| ANKRD26  | BTK    | CTLA4   | ERCC4  | FLCN   | H3C7     | KAT6A  | MEN1    | NTRK2    | POLE    | RICTOR  | SPTA1   | VEGFA    |
| APC      | CALR   | CTNNA1  | ERCC5  | FLI1   | H3C8     | KDM5A  | MET     | NTRK3    | PPARG   | RIT1    | SRC     | VHL      |
| AR       | CARD11 | CTNNB1  | ERG    | FLT1   | H3C10    | KDM5C  | MGA     | NUP93    | PPM1D   | RNF43   | SRSF2   | VTCN1    |
| ARAF     | CASP8  | CUL3    | ERRFI1 | FLT3   | H3C11    | KDM6A  | MITF    | NUTM1    | PPP2R1A | ROS1    | STAG1   | WISP3    |
| ARFRP1   | CBFB   | CUX1    | ESR1   | FLT4   | H3C12    | KDR    | MLH1    | PAK1     | PPP2R2A | RPS6KA4 | STAG2   | WT1      |
| ARID1A   | CBL    | CXCR4   | ETS1   | FOXA1  | H3C13    | KEAP1  | MLL2    | PAK3     | PPP6C   | RPS6KB1 | STAT3   | XIAP     |
| ARID1B   | CCND1  | CYLD    | ETV1   | FOXL2  | H3C14    | KEL    | MPL     | PAK5     | PRDM1   | RPS6KB2 | STAT4   | XPO1     |
| ARID2    | CCND2  | DAXX    | ETV4   | FOXO1  | H3C15    | KIF5B  | MRE11   | PALB2    | PREX2   | RPTOR   | STAT5A  | XRCC2    |
| ARID5B   | CCND3  | DCUN1D1 | ETV5   | FOXP1  | H3-4     | KIT    | MSH2    | PARP1    | PRKARIA | RUNX1   | STAT5B  | YAP1     |
| ASXL1    | CCNE1  | DDR2    | ETV6   | FRS2   | HLA-A    | KLF4   | MSH3    | PAX3     | PRKCI   | RUNX1T1 | STK11   | YES1     |
| ASXL2    | CD274  | DDX41   | EWSR1  | FUBP1  | HNF1A    | KLHL6  | MSH6    | PAX5     | PRKDC   | RYBP    | STK40   | ZBTB2    |
| ATM      | CD276  | DHX15   | EZH2   | FYN    | HNRNP    | KMT2A  | MST1    | PAX7     | PRKN    | SDHA    | SUFU    | ZBTB7A   |
| ATR      | CD74   | DICER1  | FANCA  | GABRA6 | HOXB13   | KMT2B  | MST1R   | PAX8     | PRSS8   | SDHAF2  | SUZ12   | ZFH3     |
| ATRX     | CD79A  | DIS3    | FANCC  | GATA1  | HRAS     | KMT2C  | MTOR    | PBRM1    | PTCH1   | SDHB    | SYK     | ZNF217   |
| AURKA    | CD79B  | DNAJB1  | FANCD2 | GATA2  | HSD3B1   | KMT2D  | MUTYH   | PDCD1    | PTEN    | SDHC    | TAF1    | ZNF703   |
| AURKB    | CDC73  | DNMT1   | FANCE  | GATA3  | HSP90AA1 | KRAS   | MYB     | PDCD1LG2 | PTPN11  | SDHD    | TBX3    | ZRSR2    |
| AXIN1    | CDH1   | DNMT3A  | FANCF  | GATA4  | ICOSLG   | LAMP1  | MYC     | PDGFRA   | PTPRD   | SETBP1  | TCF3    |          |
| AXIN2    | CDK12  | DNMT3B  | FANCG  | GATA6  | ID3      | LATS1  | MYCL    | PDGFRB   | PTPRS   | SETD2   | TCF7L2  |          |
| AXL      | CDK4   | DOT1L   | FANCI  | GEN1   | IDH1     | LATS2  | MYCN    | PDK1     | PTPRT   | SF3B1   | TENT5C  |          |
| B2M      | CDK6   | E2F3    | FANCL  | GID4   | IDH2     | LMO1   | MYD88   | PDPK1    | QKI     | SH2B3   | TERC    |          |
| BAP1     | CDK8   | EED     | FAS    | GLI1   | IFNGR1   | LRP1B  | MYOD1   | PGR      | RAB35   | SH2D1A  | TERT    |          |
| BARD1    | CDKN1A | EGFL7   | FAT1   | GNAI1  | IGF1     | LYN    | NAB2    | PHF6     | RAC1    | SHQ1    | TET1    |          |
| BBC3     | CDKN1B | EGFR    | FBXW7  | GNAI3  | IGF1R    | LZTR1  | NBN     | PHOX2B   | RAD21   | SLIT2   | TET2    |          |
| BCL10    | CDKN2A | EIF1AX  | FGF1   | GNAQ   | IGF2     | MAGI2  | NCOA3   | PIK3C2B  | RAD50   | SLX4    | TFE3    |          |
| BCL2     | CDKN2B | EIF4A2  | FGF10  | GNAS   | IKBKE    | MALT1  | NCOR1   | PIK3C2G  | RAD51   | SMAD2   | TFRC    |          |
| BCL2L1   | CDKN2C | EIF4E   | FGF14  | GPS2   | IKZF1    | MAP2K1 | NEGR1   | PIK3C3   | RAD51B  | SMAD3   | TGFBR1  |          |
| BCL2L11  | CEBPA  | ELOC    | FGF19  | GREM1  | IL10     | MAP2K2 | NF1     | PIK3CA   | RAD51C  | SMAD4   | TGFBR2  |          |
| BCL2L2   | CENPA  | EML4    | FGF2   | GRIN2A | IL7R     | MAP2K4 | NF2     | PIK3CB   | RAD51D  | SMARCA4 | TMEM127 |          |

Includes RNA sequencing analysis