



سهامی خاص  
شماره ثبت: ۴۱۰۴۵

تاریخ: .....  
شماره: .....  
پیوست: .....

### Cancer panel gene list:

ABCB1, ABCC2, ABL1, ABL2, ACVR1B, ACVR2A, AIP, AJUBA, AKT1, AKT2, AKT3, ALK, AMG, APC, AR, ARHGAP35, ARID1A, ARID5B, ASXL1, ATM, ATR, ATRX, AXIN2, B4GALT3, BAP1, BLM, BMPR1A, BRAF, BRCA1, BRCA2, BRIP1, BUB1B, CBF, CBL, CCND1, CDA, CDC73, CDH1, CDK12, CDK4, CDKN1A, CDKN1B, CDKN1C, CDKN2A, CDKN2B, CDKN2C, CEBPA, CEP57, CHD7, CHEK2, CHIC2, CREBBP, CRIPAK, CRLF2, CSF1R, CTCF, CTNNA1, CYLD, CYP19A1, CYP2A6, CYP2B6, CYP2C9, CYP2D6, DDB2, DDR1, DDR2, DDX3X, DICER1, DIS3L2, DNMT3A, DPYD, EGFR, EGR3, EIF4A2, ELF3, EP300, EPCAM, EPHA3, EPHB6, EPPK1, ERBB2, ERBB3, ERBB4, ERCC2, ERCC3, ERCC4, ERCC5, ERG, ESR1, ESR2, EXT1, EXT2, EZH2, FANCA, FANCB, FANCC, FANCD2, FANCE, FANCF, FANCG, FANCI, FANCL, FANCM, FBXW7, FGFR1, FGFR2, FGFR3, FGFR4, FH, FLCN, FLT1, FLT3, FLT4, FOXA1, FOXA2, FSTL5, GATA2, GATA3, GNA11, GNAQ, GNAS, GPC3, GSTP1, H3F3A, H3F3C, HGF, HIST1H1C, HIST1H2BD, HNF1A, HOXB13, HRAS, IDH1, IDH2, IKZF1, IL2RA, IL2RB, IL2RG, INPP4B, JAK1, JAK2, JAK3, KDM5C, KDM6A, KDR, KEAP1, KIT, KMT2B, KMT2C, KMT2D, KRAS, LAMA2, LCK, LIFR, LRRK2, LTK, MALAT1, MAP2K1, MAP2K2, MAP2K4, MAP3K1, MAPK1, MAPK8IP1, MAX, MECOM, MED13, MEN1, MET, MIR142, MITF, MLH1, MLL, MPL, MSH2, MSH6, MST1R, MTOR, MUTYH, MYC, MYD88, NAV3, NBN, NCOR1, NELL2, NF1, NF2, NFE2L2, NFE2L3, NOTCH1, NPM1, NRAS, NSD1, PALB2, PBRM1, PCBP1, PDGFRA, PDGFRB, PHF6, PHOX2B, PIK3CA, PIK3CG, PIK3R1, PMS1, PMS2, POLQ, PPP2R1A, PRF1, PRKAR1A, PRX, PSMB1, PSMB2, PSMB5, PSMD1, PSMD2, PTCH1, PTEN, PTPN11, RAD21, RAD51C, RAD51D, RAF1, RARA, RARB, RARG, RB1, RECQL4, RET, RHBDF2, ROS1, RPL22, RPL5, RPS6KB1, RUNX1, RXRA, RXRB, RXRG, SBDS, SDHAF2, SDHB, SDHC, SDHD, SETBP1, SETD2, SF3B1, SHH, SHOC2, SIN3A, SLC22A1, SLC22A2, SLC31A1, SLC34A2, SLC45A3, SLC6A1, SLX4, SMAD2, SMAD4, SMARCA4, SMARCB1, SMC1A, SMC3, SMO, SNCAIP, SOS1, SOX17, SOX9, SPOP, SPRED1, SRC, STAG2, STK11, SUFU, TAF1, TAS2R38, TBL1XR1, TBX3, TET2, TGFB2, TLR4, TMEM127, TP53, TRRAP, TSC1, TSC2, TSHZ2, TSHZ3, TYK2, U2AF1, UGT1A1, USP9X, VEZF1, VHL, WRN, WT1, XPA, XPC, YES1, ZMYM3

### Single nucleotide polymorphisms (SNPs) included in the cancer panel:

rs10052657, rs10058728, rs10069690, rs10079352, rs10088218, rs10118253, rs1011970, rs1014971, rs1016343, rs10187424, rs10194115, rs1025542, rs10258757, rs1027643, rs10411210, rs10484561, rs10484761, rs10486776, rs10493887, rs10505477, rs10509835, rs10513702, rs10515552, rs1051730, rs1052501, rs10744177, rs10762771, rs10795668, rs10821936, rs10822013, rs10828675, rs10841937, rs10875943, rs10888501, rs10896449, rs10928927, rs10934853, rs10936599, rs10936632,



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rs10937405, rs10947670, rs10953615, rs10974944, rs10993994, rs10995190,  
rs11012732, rs11017876, rs110419, rs1106334, rs11066015, rs11066280, rs11067228,  
rs11083515, rs11083846, rs11157653, rs11169552, rs11199874, rs11228565, rs1122927,  
rs11249433, rs1155741, rs1163183, rs11648965, rs11655512, rs116909374, rs11762273,  
rs11794323, rs11837475, rs11940551, rs11978267, rs1210110, rs1219648, rs12210050,  
rs1229984, rs12318959, rs12336160, rs12413624, rs12452133, rs12473565, rs12500426,  
rs1250223, rs12503744, rs12541800, rs12621278, rs12637723, rs12653946, rs12655917,  
rs12667787, rs1288097, rs1297370, rs130067, rs13016963, rs13094242, rs1321311,  
rs1327301, rs13281615, rs13294589, rs1329568, rs13361707, rs13387042, rs13393577,  
rs13397985, rs1355845, rs1364054, rs1372116, rs138213197, rs1393350, rs1406961,  
rs1412329, rs1412829, rs1432295, rs1447295, rs1456315, rs1465618, rs1488298,  
rs1494961, rs1495741, rs1495908, rs149617956, rs1512268, rs1527243, rs1528601,  
rs1547374, rs1562430, rs1572072, rs1593304, rs161792, rs1643209, rs16847697,  
rs16861326, rs16892766, rs1689282, rs16901979, rs16902094, rs16920624, rs16937883,  
rs16938910, rs16962638, rs16996148, rs17008327, rs17021918, rs17034770,  
rs17119461, rs17120651, rs17167582, rs17181170, rs17186051, rs17272796,  
rs17401966, rs17431357, rs17483466, rs17505102, rs17674580, rs17677051, rs1801516,  
rs1805007, rs1859962, rs1860230, rs1871426, rs1898036, rs1921998, rs1945213,  
rs1955848, rs1997937, rs200113, rs2014300, rs2019960, rs2046210, rs204999, rs20541,  
rs2063164, rs2072590, rs2074356, rs210138, rs2121875, rs2131877, rs2157453,  
rs2157719, rs2162440, rs2178603, rs2180341, rs2242652, rs224278, rs2248462,  
rs2251110, rs2255280, rs2274223, rs2283873, rs2284063, rs2292884, rs2294008,  
rs22954029, rs236528, rs2395185, rs2416996, rs242076, rs2439302, rs2456449,  
rs2517713, rs258322, rs2596542, rs2623382, rs2647012, rs2647044, rs2660753,  
rs2700367, rs2734583, rs2735839, rs2736100, rs274741, rs28421666, rs2853676,  
rs2858870, rs2860580, rs2868756, rs2894207, rs2900333, rs29232, rs2981575,  
rs2981579, rs2981582, rs299964, rs3095966, rs3112612, rs3117582, rs3123078,  
rs3129055, rs3130544, rs31489, rs330650, rs339331, rs35229355, rs36600, rs372883,  
rs3738694, rs3755132, rs3765524, rs3768716, rs3781264, rs3782181, rs3790844,  
rs3802842, rs3803662, rs3814113, rs3817198, rs3824999, rs3848521, rs387096,  
rs391525, rs3915716, rs3997520, rs401681, rs4132601, rs4242382, rs4242384,  
rs4295627, rs4324798, rs433317, rs4337777, rs439401, rs4415084, rs4430796,  
rs4444235, rs445114, rs4474514, rs4487645, rs4488809, rs4489167, rs4512236,  
rs45430, rs4624820, rs4632227, rs4635969, rs4639272, rs4687006, rs4712653,  
rs4745841, rs4765623, rs4767364, rs4775302, rs4775699, rs4779584, rs4784207,  
rs4784227, rs4785763, rs4789659, rs4793172, rs4795519, rs480700, rs4808069,  
rs4809324, rs4875051, rs4877455, rs4889035, rs4905366, rs4924410, rs4925386,  
rs4939827, rs4973768, rs4975616, rs4975709, rs4977756, rs4984473, rs498872,  
rs505922, rs556018, rs569629, rs5759167, rs5761946, rs5768709, rs5919432,  
rs5927164, rs5934683, rs5945572, rs5945619, rs5955543, rs6010620, rs6046748,  
rs609096, rs6129168, rs6138892, rs614367, rs6435862, rs6457327, rs6465657,



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rs6475870, rs651164, rs6546856, rs6585677, rs6603109, rs6603251, rs66718538,  
rs6687758, rs6691170, rs6694222, rs6697376, rs671, rs6722213, rs6731289, rs6734275,  
rs674313, rs6759244, rs6763931, rs6774494, rs685449, rs6874954, rs6903608,  
rs6904219, rs6939340, rs6957441, rs6983267, rs7014346, rs7023329, rs7040024,  
rs704010, rs7043482, rs7085224, rs7089424, rs710521, rs7105934, rs7127900,  
rs7128311, rs7130881, rs7176508, rs718314, rs7189583, rs7210100, rs721048,  
rs7238033, rs7251928, rs72561473, rs7261103, rs7299662, rs7335046, rs735480,  
rs735665, rs738722, rs7406339, rs7412746, rs7453135, rs745767, rs746017, rs7501939,  
rs7538876, rs753955, rs755383, rs7555566, rs7579747, rs757978, rs7579899,  
rs7584330, rs7584993, rs7635839, rs7679673, rs767983, rs7703051, rs7723040,  
rs7732591, rs7736417, rs7758229, rs7780323, rs7808249, rs7824027, rs7837688,  
rs7844620, rs790356, rs791443, rs7931342, rs798443, rs798766, rs801114, rs8030672,  
rs8034191, rs8042374, rs8066483, rs807624, rs810087, rs8102137, rs8102476, rs8170,  
rs865686, rs872071, rs889312, rs891835, rs902774, rs910873, rs9268542, rs9272346,  
rs9275572, rs9284813, rs9286879, rs9293511, rs9313296, rs9319321, rs9349653,  
rs9352613, rs9364554, rs937878, rs9396715, rs9398652, rs9430161, rs944289,  
rs9485372, rs9510787, rs9513354, rs9543325, rs9572094, rs9573163, rs9600079,  
rs9600257, rs961253, rs961425, rs9642880, rs965513, rs966423, rs971074, rs9830186,  
rs9841504, rs9862216, rs9897184, rs9911767, rs9912380, rs9929218, rs9934438,  
rs995030