Potential panel genes of large\_intestine cancer are (n=50):

Asia:  
KRAS (66.6732%)  
BRAF (17.3938%)  
APC (9.0378%)  
TP53 (7.2653%)  
PIK3CA (5.1617%)  
SMAD4 (2.0841%)  
TGFBR2 (1.6556%)  
TCF7L2 (1.5972%)  
NRAS (1.5388%)  
AMER1 (1.5193%)  
RNF43 (1.4608%)  
MSH6 (1.3635%)  
FBXW7 (1.305%)  
CTNNB1 (1.2271%)  
ATM (0.9739%)  
FAT4 (0.9349%)  
ACVR2A (0.7012%)  
ERBB3 (0.6817%)  
ERBB2 (0.6817%)  
MLH1 (0.6623%)  
MSH2 (0.6233%)  
LRP1B (0.5259%)  
KMT2C (0.4869%)  
PTEN (0.448%)  
RNF213 (0.4285%)  
PTPRT (0.4285%)  
AXIN2 (0.409%)  
ARID1A (0.409%)  
CAMTA1 (0.3896%)  
TRRAP (0.3896%)  
GNAS (0.3896%)  
SMAD2 (0.3896%)  
PREX2 (0.3896%)  
ERBB4 (0.3701%)  
NF1 (0.3701%)  
EGFR (0.3506%)  
ZFHX3 (0.3506%)  
KMT2D (0.3311%)  
CASP8 (0.3116%)  
POLE (0.3116%)  
SPEN (0.3116%)  
BRCA2 (0.3116%)  
KMT2A (0.2922%)  
SETD2 (0.2727%)  
NIN (0.2727%)  
SETBP1 (0.2727%)  
PDGFRA (0.2727%)  
FAT1 (0.2532%)  
ROS1 (0.2337%)  
TET1 (0.2143%)  
  
  
The world:  
KRAS (48.9653%)  
BRAF (22.4708%)  
APC (12.7689%)  
TP53 (16.8706%)  
PIK3CA (6.2334%)  
KMT2C (1.1574%)  
SMAD4 (1.9486%)  
FBXW7 (2.1025%)  
LRP1B (1.3289%)  
FAT4 (1.2549%)  
KMT2D (1.06%)  
TCF7L2 (1.1964%)  
ATM (1.0873%)  
RNF43 (1.2666%)  
MSH6 (0.7015%)  
AMER1 (0.8846%)  
CTNNB1 (1.2646%)  
FAT1 (0.795%)  
ARID1A (0.9665%)  
ZFHX3 (0.8652%)  
NRAS (1.1691%)  
POLE (0.8749%)  
PTEN (0.9041%)  
NF1 (0.8671%)  
PTPRT (0.8924%)  
GNAS (0.9158%)  
RNF213 (0.6976%)  
TGFBR2 (0.7093%)  
NCOR2 (0.6391%)  
ERBB4 (0.756%)  
TRRAP (0.721%)  
ACVR2A (0.8457%)  
NOTCH1 (0.6742%)  
PREX2 (0.6333%)  
KMT2A (0.6196%)  
CREBBP (0.6645%)  
MTOR (0.7015%)  
HLA-A (0.4657%)  
ATRX (0.6196%)  
EP300 (0.6645%)  
BRCA2 (0.5807%)  
EGFR (0.6761%)  
PDE4DIP (0.532%)  
ARID1B (0.6255%)  
MYH11 (0.5573%)  
CARD11 (0.6625%)  
FLT4 (0.6313%)  
ERBB2 (0.6606%)  
GRIN2A (0.6274%)  
SPEN (0.5573%)  
SMARCA4 (0.6002%)  
ROS1 (0.5573%)  
ALK (0.606%)  
NCOR1 (0.5066%)  
KDR (0.5144%)  
PTCH1 (0.5086%)  
NOTCH2 (0.4969%)  
UBR5 (0.5203%)  
ARID2 (0.532%)  
TSC2 (0.532%)  
CHD4 (0.4871%)  
ERBB3 (0.5475%)  
SETD2 (0.4793%)  
MSH2 (0.5125%)  
SMAD2 (0.5339%)  
BCL9L (0.4813%)  
TPR (0.4793%)  
ATR (0.4716%)  
AXIN2 (0.5436%)  
MED12 (0.4677%)  
AR (0.4852%)  
TET1 (0.4228%)  
PTPRK (0.4131%)  
POLD1 (0.4209%)  
PIK3R1 (0.4774%)  
B2M (0.417%)  
PDGFRA (0.4482%)  
CIC (0.4774%)  
NRG1 (0.4228%)  
MLH1 (0.4949%)  
CACNA1D (0.4072%)  
PRDM16 (0.3897%)  
CUX1 (0.4228%)  
AFDN (0.4072%)  
ASXL1 (0.4988%)  
RET (0.4657%)  
POLQ (0.3917%)  
NSD1 (0.415%)  
ESR1 (0.4092%)  
RUNX1T1 (0.4345%)  
DICER1 (0.4189%)  
PTPN13 (0.3819%)  
CAMTA1 (0.4248%)  
MYH9 (0.4111%)  
PBRM1 (0.417%)  
SMAD3 (0.4482%)  
KIT (0.415%)  
BCORL1 (0.417%)  
KDM5A (0.4111%)  
CDH11 (0.4228%)  
AFF3 (0.417%)  
KDM6A (0.3371%)  
FGFR3 (0.3449%)  
BCOR (0.4248%)  
LIFR (0.3449%)  
KNL1 (0.3079%)  
TET2 (0.4014%)  
RB1 (0.3527%)  
ATP2B3 (0.3624%)  
BCL9 (0.3449%)  
NTRK3 (0.4209%)  
QKI (0.3449%)  
MYO5A (0.3644%)  
SETBP1 (0.3468%)  
AFF1 (0.3956%)  
IRS4 (0.3683%)  
KAT6A (0.3663%)  
FANCA (0.3819%)  
RECQL4 (0.3741%)  
LATS2 (0.378%)  
NIN (0.3566%)  
NUMA1 (0.378%)  
CNTRL (0.3137%)  
MET (0.3507%)  
SND1 (0.3546%)  
BRD4 (0.3644%)  
FANCD2 (0.3176%)  
DNMT3A (0.3449%)  
KAT6B (0.3371%)  
RANBP2 (0.3176%)  
PTPRC (0.3254%)  
ZNF521 (0.3585%)  
CDK12 (0.3468%)  
MN1 (0.3274%)  
PTPRB (0.3059%)  
ABL1 (0.3507%)  
WRN (0.3293%)  
CIITA (0.3215%)  
CASP8 (0.339%)  
ERCC2 (0.3274%)  
FGFR2 (0.3429%)  
BRCA1 (0.3079%)  
CDH1 (0.3157%)  
PML (0.3176%)  
MLLT10 (0.2942%)  
MAP3K1 (0.3235%)  
TERT (0.3352%)  
COL1A1 (0.3293%)  
COL2A1 (0.339%)  
DROSHA (0.2728%)  
EBF1 (0.2806%)  
FGFR1 (0.2923%)  
CLTC (0.2825%)  
SF3B1 (0.2845%)  
BCR (0.2611%)  
USP6 (0.2397%)  
PCM1 (0.2708%)  
GPHN (0.2845%)  
JAK1 (0.3079%)  
FLT3 (0.2845%)  
TSC1 (0.3196%)  
STAG2 (0.2923%)  
NUP214 (0.304%)  
NFATC2 (0.302%)  
TP63 (0.3098%)  
NSD2 (0.304%)  
ARHGEF12 (0.2864%)  
JAK3 (0.3137%)  
CDC73 (0.2767%)  
LATS1 (0.267%)  
JAK2 (0.2708%)  
TBX3 (0.2864%)  
IKZF1 (0.302%)  
TRIP11 (0.2631%)  
PDGFRB (0.3001%)  
TCF12 (0.2553%)  
PAX5 (0.2631%)  
SMO (0.2923%)  
CTCF (0.2903%)  
ETV1 (0.267%)  
CLTCL1 (0.2631%)  
FGFR4 (0.2962%)  
RBM10 (0.2962%)  
AKT1 (0.2903%)  
MECOM (0.267%)  
ERCC5 (0.2786%)  
HNF1A (0.2806%)  
MAML2 (0.2611%)  
ERC1 (0.2027%)  
PALB2 (0.2806%)  
AXIN1 (0.2708%)  
ARHGAP35 (0.2553%)  
FHIT (0.2143%)  
KDM5C (0.2806%)  
MLLT3 (0.267%)  
FOXP1 (0.2728%)  
SALL4 (0.2786%)  
RAD51B (0.2338%)  
NTRK1 (0.2825%)  
TCF3 (0.2786%)  
TSHR (0.2708%)  
BCL11B (0.2592%)  
NCOA2 (0.2416%)  
ZBTB16 (0.2416%)  
GATA3 (0.2728%)  
NUP98 (0.2455%)  
MAP2K4 (0.2689%)  
BLM (0.2553%)  
MAP3K13 (0.2397%)  
CLIP1 (0.2592%)  
CHEK2 (0.2436%)  
PMS2 (0.2553%)  
DNM2 (0.2494%)  
LPP (0.2475%)  
HIP1 (0.2299%)  
BRIP1 (0.2358%)  
FUBP1 (0.2358%)  
GNAQ (0.2085%)  
ZMYM2 (0.2436%)  
PER1 (0.2241%)  
ACVR1B (0.2085%)  
EML4 (0.228%)  
EZH2 (0.2533%)  
NSD3 (0.2299%)  
PIK3CB (0.2241%)  
BCL11A (0.2475%)  
RUNX1 (0.2377%)  
MSI2 (0.2299%)  
MITF (0.2416%)  
NR4A3 (0.2163%)  
DCTN1 (0.2358%)  
TRIM24 (0.2241%)  
NBN (0.2338%)  
PAX3 (0.2494%)  
BRD3 (0.2241%)  
SDHA (0.226%)  
CRTC1 (0.228%)  
PPFIBP1 (0.1968%)  
PRDM1 (0.2494%)  
EXT1 (0.2046%)  
NCOA1 (0.2182%)  
ABL2 (0.2182%)  
ETV6 (0.2299%)  
FLCN (0.2338%)  
PPP2R1A (0.2319%)  
DDR2 (0.226%)  
LZTR1 (0.2085%)  
MAP2K1 (0.2241%)  
SYK (0.2163%)  
FANCC (0.2182%)  
CBLB (0.2027%)  
IDH1 (0.2338%)  
BMPR1A (0.189%)  
PLCG1 (0.2104%)  
TRIM33 (0.2143%)  
TFE3 (0.1812%)  
ARHGAP26 (0.1734%)  
ERG (0.2124%)  
CYLD (0.1871%)  
GAS7 (0.2163%)  
IL6ST (0.2143%)  
XPO1 (0.1929%)  
CBL (0.2027%)  
CBFA2T3 (0.1949%)  
PBX1 (0.1949%)  
SLC34A2 (0.1929%)  
AFF4 (0.1871%)  
CARS (0.2065%)  
TNFAIP3 (0.2007%)  
RAF1 (0.2007%)  
LRIG3 (0.1871%)  
PPM1D (0.2124%)  
SMARCB1 (0.1968%)  
SFRP4 (0.1968%)  
FIP1L1 (0.191%)  
PTPN11 (0.1968%)  
ERCC3 (0.2027%)  
BCL6 (0.1988%)  
CDKN2A (0.1812%)  
ATIC (0.1754%)  
TRAF7 (0.1734%)  
EPS15 (0.1773%)  
CSF3R (0.1832%)  
IL7R (0.1812%)  
MYOD1 (0.1949%)  
WT1 (0.1929%)  
NUTM1 (0.1871%)  
NF2 (0.1851%)  
ETV5 (0.1715%)  
EPAS1 (0.1871%)  
MRTFA (0.1929%)  
CNOT3 (0.1871%)  
KTN1 (0.152%)  
TOP1 (0.1773%)  
GNA11 (0.1676%)  
ERCC4 (0.1929%)  
STK11 (0.1851%)  
FLI1 (0.1695%)  
STAT3 (0.189%)  
IRF4 (0.1832%)  
RBM15 (0.1617%)  
RABEP1 (0.1773%)  
GATA2 (0.1793%)  
IL21R (0.1676%)  
KCNJ5 (0.1734%)  
SUFU (0.1695%)  
STIL (0.1578%)  
PAX7 (0.1832%)  
MEN1 (0.1851%)  
NFKB2 (0.1754%)  
MLLT1 (0.1676%)  
BARD1 (0.1754%)  
NT5C2 (0.1617%)  
RAD21 (0.1734%)  
ACSL3 (0.152%)  
ATP1A1 (0.1656%)  
GOLGA5 (0.1539%)  
DDX10 (0.1734%)  
SRC (0.1832%)  
AKT2 (0.1617%)  
PHOX2B (0.1715%)  
STAT5B (0.1793%)  
USP8 (0.1637%)  
FGFR1OP (0.1578%)  
BAX (0.1539%)  
BTK (0.1617%)  
HOOK3 (0.1481%)  
HSP90AB1 (0.1656%)  
STAT6 (0.1676%)  
IKBKB (0.1578%)  
NFIB (0.1403%)  
U2AF1 (0.1578%)  
RPL22 (0.1793%)  
SS18L1 (0.1637%)  
KIF5B (0.1578%)  
MUTYH (0.1637%)  
ITK (0.152%)  
FUS (0.1578%)  
NKX2-1 (0.1442%)  
DDX5 (0.1422%)  
RSPO2 (0.1325%)  
MALT1 (0.1578%)  
LMNA (0.1364%)  
POT1 (0.1539%)  
FES (0.1461%)  
CCDC6 (0.1325%)  
FBXO11 (0.1481%)  
RARA (0.1559%)  
KEAP1 (0.1539%)  
MYCN (0.1481%)  
XPC (0.1539%)  
BAP1 (0.1598%)  
EXT2 (0.1442%)  
MAF (0.1461%)  
PLAG1 (0.1325%)  
BUB1B (0.1422%)  
MAP2K2 (0.1422%)  
ZNF384 (0.1383%)  
FOXO1 (0.1325%)  
EWSR1 (0.1461%)  
STRN (0.1442%)  
TMPRSS2 (0.1461%)  
HIF1A (0.1383%)  
ACKR3 (0.1442%)  
REL (0.1422%)  
TENT5C (0.1403%)  
FANCG (0.1325%)  
IDH2 (0.1481%)  
PSIP1 (0.1306%)  
DAXX (0.1442%)  
ZNF331 (0.1383%)  
ARNT (0.1325%)  
BCL3 (0.1325%)  
SUZ12 (0.1422%)  
NFE2L2 (0.1345%)  
TFG (0.1325%)  
P2RY8 (0.113%)  
NDRG1 (0.1325%)  
ASPSCR1 (0.1267%)  
SMARCE1 (0.1345%)  
IKZF3 (0.1286%)  
MYC (0.1403%)  
MYB (0.1364%)  
RHOA (0.1286%)  
SH2B3 (0.1306%)  
EIF4A2 (0.1306%)  
PRRX1 (0.1286%)  
JUN (0.1364%)  
FCRL4 (0.1247%)  
LCK (0.1267%)  
PRF1 (0.1345%)  
CDK6 (0.1189%)  
MPL (0.1286%)  
MSN (0.1422%)  
MDM4 (0.1228%)  
EZR (0.1228%)  
ELL (0.1286%)  
PAX8 (0.1286%)  
PRCC (0.1306%)  
ACVR1 (0.1247%)  
LEF1 (0.1228%)  
CREB1 (0.1111%)  
SOX2 (0.1247%)  
CREB3L2 (0.1169%)  
BIRC3 (0.115%)  
GPC3 (0.1208%)  
PATZ1 (0.1189%)  
TBL1XR1 (0.1072%)  
PRKAR1A (0.1228%)  
FOXL2 (0.1228%)  
HNRNPA2B1 (0.1247%)  
RAP1GDS1 (0.1111%)  
ABI1 (0.1169%)  
HOXC13 (0.115%)  
TNFRSF14 (0.113%)  
GATA1 (0.1208%)  
ZRSR2 (0.113%)  
PDGFB (0.1208%)  
KLF4 (0.115%)  
RPN1 (0.1072%)  
SLC45A3 (0.1111%)  
MDM2 (0.1052%)  
MAFB (0.1013%)  
ELF4 (0.115%)  
HRAS (0.1111%)  
MAPK1 (0.1072%)  
CD79A (0.113%)  
CXCR4 (0.1052%)  
EIF3E (0.1013%)  
HSP90AA1 (0.1091%)  
TFEB (0.1169%)  
OLIG2 (0.1052%)  
DDX3X (0.1072%)  
NAB2 (0.1111%)  
HLF (0.1111%)  
PICALM (0.0974%)  
ETV4 (0.1052%)  
TPM3 (0.0935%)  
TLX3 (0.1111%)  
WIF1 (0.0955%)  
CREB3L1 (0.1013%)  
CCNE1 (0.1013%)  
SPOP (0.1072%)  
PPP6C (0.1072%)  
NONO (0.0916%)  
TAL1 (0.1052%)  
TCEA1 (0.0994%)  
SDHC (0.1052%)  
CCND1 (0.1052%)  
YWHAE (0.0935%)  
SIX1 (0.1013%)  
MAX (0.1052%)  
WDCP (0.0935%)  
SFPQ (0.0955%)  
RSPO3 (0.0935%)  
CANT1 (0.0994%)  
NPM1 (0.0896%)  
CDKN1B (0.0974%)  
VHL (0.0877%)  
HOXD11 (0.0955%)  
TLX1 (0.0896%)  
LMO1 (0.0916%)  
WAS (0.0916%)  
BCL2 (0.0877%)  
APOBEC3B (0.0721%)  
PPARG (0.0955%)  
GOPC (0.0896%)  
FH (0.0935%)  
SS18 (0.0877%)  
PTK6 (0.0896%)  
HERPUD1 (0.0896%)  
PRKACA (0.0799%)  
FANCE (0.0877%)  
DEK (0.0857%)  
FOXA1 (0.0838%)  
WWTR1 (0.0857%)  
HOXC11 (0.0838%)  
MUC1 (0.0896%)  
HMGA2 (0.0818%)  
CRTC3 (0.0857%)  
CDK4 (0.0838%)  
LASP1 (0.076%)  
DDB2 (0.0779%)  
CBLC (0.0857%)  
ETNK1 (0.0779%)  
FOXO3 (0.0779%)  
XPA (0.0799%)  
MYCL (0.0818%)  
FOXO4 (0.0779%)  
DDX6 (0.0721%)  
KLK2 (0.0643%)  
FAS (0.0779%)  
CCND2 (0.0779%)  
HOXA11 (0.074%)  
FCGR2B (0.0663%)  
POU2AF1 (0.0663%)  
ELK4 (0.0643%)  
TCL1A (0.074%)  
RPL5 (0.0663%)  
SH3GL1 (0.074%)  
BCL10 (0.0701%)  
CALR (0.0701%)  
CEBPA (0.0585%)  
RAC1 (0.0701%)  
NFKBIE (0.0721%)  
CCNB1IP1 (0.0624%)  
TPM4 (0.0624%)  
PDCD1LG2 (0.0546%)  
PIM1 (0.0682%)  
RHOH (0.0643%)  
KDSR (0.0643%)  
HOXD13 (0.0682%)  
HIST1H3B (0.0624%)  
ATF1 (0.0663%)  
PHF6 (0.0643%)  
TRIM27 (0.0604%)  
MYD88 (0.0663%)  
HIST1H4I (0.0448%)  
CBFB (0.0604%)  
MLF1 (0.0604%)  
CRLF2 (0.0624%)  
POU5F1 (0.0526%)  
LYL1 (0.0585%)  
CDX2 (0.0585%)  
RPL10 (0.0585%)  
FANCF (0.0604%)  
SET (0.0507%)  
KLF6 (0.0526%)  
DNAJB1 (0.0565%)  
HEY1 (0.0526%)  
SRSF3 (0.0565%)  
PAFAH1B2 (0.0507%)  
SSX1 (0.0487%)  
TNFRSF17 (0.0448%)  
BCL7A (0.0526%)  
NUTM2D (0.0448%)  
SBDS (0.0507%)  
CCND3 (0.0468%)  
FEV (0.0448%)  
SDHD (0.0448%)  
CD274 (0.0468%)  
LMO2 (0.0448%)  
CD79B (0.0448%)  
SDHAF2 (0.0429%)  
SRSF2 (0.0429%)  
HOXA13 (0.0429%)  
HOXA9 (0.0331%)  
CNBP (0.039%)  
TMEM127 (0.0429%)  
CD74 (0.0409%)  
BTG1 (0.0351%)  
SDC4 (0.039%)  
SDHB (0.039%)  
SOCS1 (0.037%)  
MTCP1 (0.0351%)  
CDKN2C (0.037%)  
MLLT11 (0.0331%)  
DDIT3 (0.0312%)  
H3F3B (0.0331%)  
TAL2 (0.0312%)  
IL2 (0.0273%)  
H3F3A (0.0253%)  
CHCHD7 (0.0214%)  
HMGA1 (0.0214%)  
FSTL3 (0.0136%)  
RMI2 (0.0136%)  
NUTM2B (0.0039%)