**Table E1:** Gene-Panel

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ADA  | CECR1  | IKZF1 | NBN  | RASGRP1 | TGFB2  |
| AICDA  | CLEC16A  | IL10RA | NCF2  | REL | TGFB3  |
| AIRE  | CORO1B  | IL10RB  | NFKB1 | RELA  | TMEM17 |
| AKT1  | CR2  | IL12RB2 | NFKB2 | RELB  | TNFAIP1  |
| AKT3  | CRACR2A | IL17A  | NFKBIA  | RIF1 | TNFRSF10A  |
| APCS  | CTLA4  | IL17RA  | NLRP12  | RLTPR  | TNFRSF13B  |
| ARPC1B | CXCL12  | IL21  | NOD2 | RORA | TNFRSF13C |
| BACH2 | CXCR4  | IL21R  | NOTCH1  | RPS6KB2 | TNFRSF17  |
| BBX | CXCR5  | IL4I1  | NOTCH2  | RPTOR  | TNFRSF18  |
| BCL2L1  | DCLRE1C  | IL6ST | ORAI1 | RTEL1 | TNFRSF4  |
| BCL6  | DKC1 | IRF2BP2 | ORAI2 | RTP4  | TNFSF10 |
| BLNK  | DOCK11  | IRF4  | ORAI3 | SARAF | TNFSF13  |
| BTK  | DOCK8  | IRF8 | P2RX7  | SEC61A1 | TNFSF13B |
| CARD11  | DUSP2  | ITSN2  | PDCD1  | SEC61A2  | TYK2 |
| CARD9  | FCGR3A | KCNC4 | PDCD1LG2  | SEC61G  | USP8 |
| CASP8  | FCGRT  | KIDINS220  | PGM3  | SH2D1A  | VAV1  |
| CCL5  | FCHO1  | LRBA | PIK3AP1  | SH3KBP1  | VAV2  |
| CCR6  | FOXP3 | LRRC32 | PIK3C2A  | SOCS1  | WAS  |
| CD19 | GATA2  | LRRK2  | PIK3CD  | SPINK5  | WDR1 |
| CD27  | GRAP  | LTF | PIK3R1  | STAT1  | WNT5A  |
| CD274  | GRB2  | MCM10 | PIK3R4  | STAT3  | XCL1 3 |
| CD28  | HDAC4  | MCM4 | PRDM1  | STAT4 | XIAP |
| CD40  | HSPA5  | MICALL2 | PRKCD  | STAT5B | ZNF341  |
| CD40LG  | ICOS  | MLH1  | PRKD1  | STIM1 |  |
| CD79A  | ICOSLG | MS4A1  | PTEN  | STIM2 |  |
| CD79B  | IGHM  | MSH2  | PTPN1  | STK11  |  |
| CD80  | IGLL1  | MSH5  | PTPN6  | STXBP2  |  |
| CD81  | IKBKB  | MTA3  | RAD50  | TCF3  |  |
| CD86  | IKBKE  | MYH9  | RAG1  | TFRC  |  |
| CDX1  | IKBKG  | MYO5B | RAG2  | TGFB1  |  |