Table 1: **Top 20 genes in PCA**

| genes | information |
| --- | --- |
| **PC1** | |
| SMARCD3 | Innate Cells Monocyte enriched in monocytes (IV) |
| LHFPL2 | Innate Cells DCs DC surface signature, Innate Cells DCs Resting dendritic cell surface signature |
| SLC26A8 | General General Generic immune activation - generic cluster |
| GCA | Innate Cells Monocyte enriched in monocytes (II) |
| S100A9 | Innate Cells Monocyte enriched in monocytes (II) |
| FYN | Adaptive Cellular T cell T cell signaling and costimulation, Innate APP All regulation of antigen presentation and immune response |
| CD2 | Adaptive Cellular T cell T cell activation and signaling, Adaptive Cellular T cell enriched in T cells (I), Adaptive Cellular T cell T cell activation (I), Adaptive Cellular T cell T cell surface signature, Adaptive General Lymphocyte lymphocyte generic cluster, General General Generic immune activation - generic cluster |
| CCR7 | Adaptive Cellular T cell T cell activation and signaling, Adaptive Cellular T cell T cell activation (I), Adaptive Cellular T cell IL2, IL7, TCR network, Adaptive Humoral B cell B cell development, Innate APP All regulation of antigen presentation and immune response, Innate APP All antigen presentation (lipids and proteins), Innate Signaling Generic CCR1, 7 and cell signaling |
| CD3G | Adaptive Cellular T cell T cell activation and signaling, Adaptive Cellular T cell enriched in T cells (I), Adaptive Cellular T cell T cell activation (I), Adaptive Cellular T cell T cell activation (II), Adaptive Cellular Th2 T cell differentiation (Th2), Adaptive Cellular T cell T cell surface signature, Adaptive Cellular Th2 CD4 T cell surface signature Th2-stimulated, Adaptive General Lymphocyte T & B cell development, activation, General General Generic immune activation - generic cluster, Innate APP All regulation of antigen presentation and immune response |
| NLRC3 | Adaptive Cellular T cell enriched in T cells (I), Adaptive Cellular T cell T cell activation (I), Adaptive Cellular T cell T cell activation (II), Innate Cells NK enriched in NK cells (I) |
| **PC2** | |
| KIT | Adaptive General Lymphocyte immuregulation - monocytes, T and B cells, Innate Cells NK NK cell surface signature |
| FOXO1 | General General Generic immune activation - generic cluster |
| SERINC5 | Innate Cells DCs Resting dendritic cell surface signature |
| GRAMD1C | Adaptive Humoral B cell Memory B cell surface signature |
| LILRB1 | Adaptive Cellular T cell T cell surface, activation, Innate APP All regulation of antigen presentation and immune response, Innate Cells Monocyte enriched in monocytes (II), Innate Cells Monocyte Monocyte surface signature, Innate PRR Generic TLR and inflammatory signaling |
| LILRB4 | Adaptive Cellular T cell T cell surface, activation |
| ADAP2 | General General Generic immune activation - generic cluster, Innate Cells Monocyte enriched in monocytes (II) |
| JUP | General General Generic immune activation - generic cluster |
| TYMP | Innate Cells Monocyte enriched in monocytes (II) |