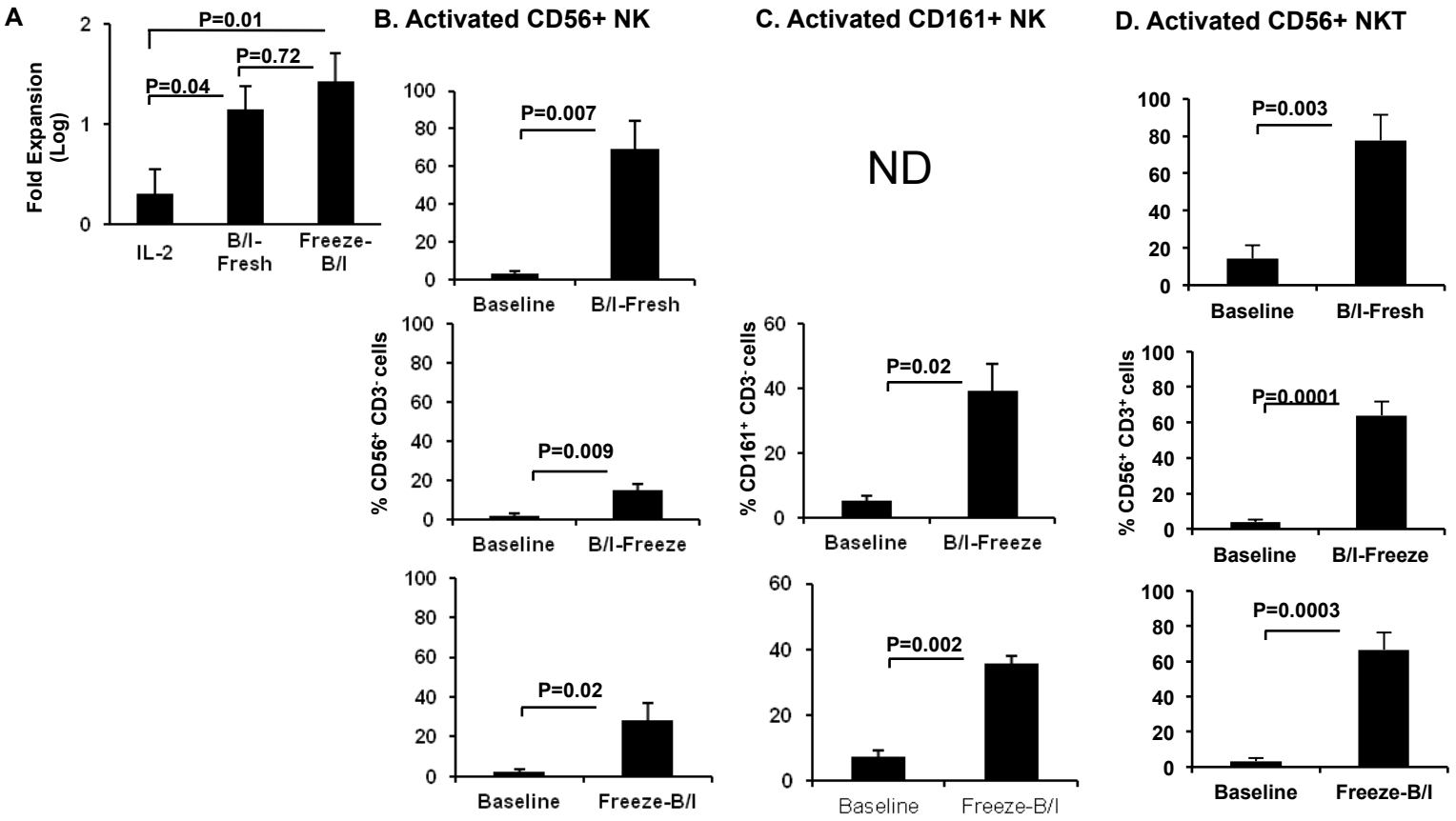
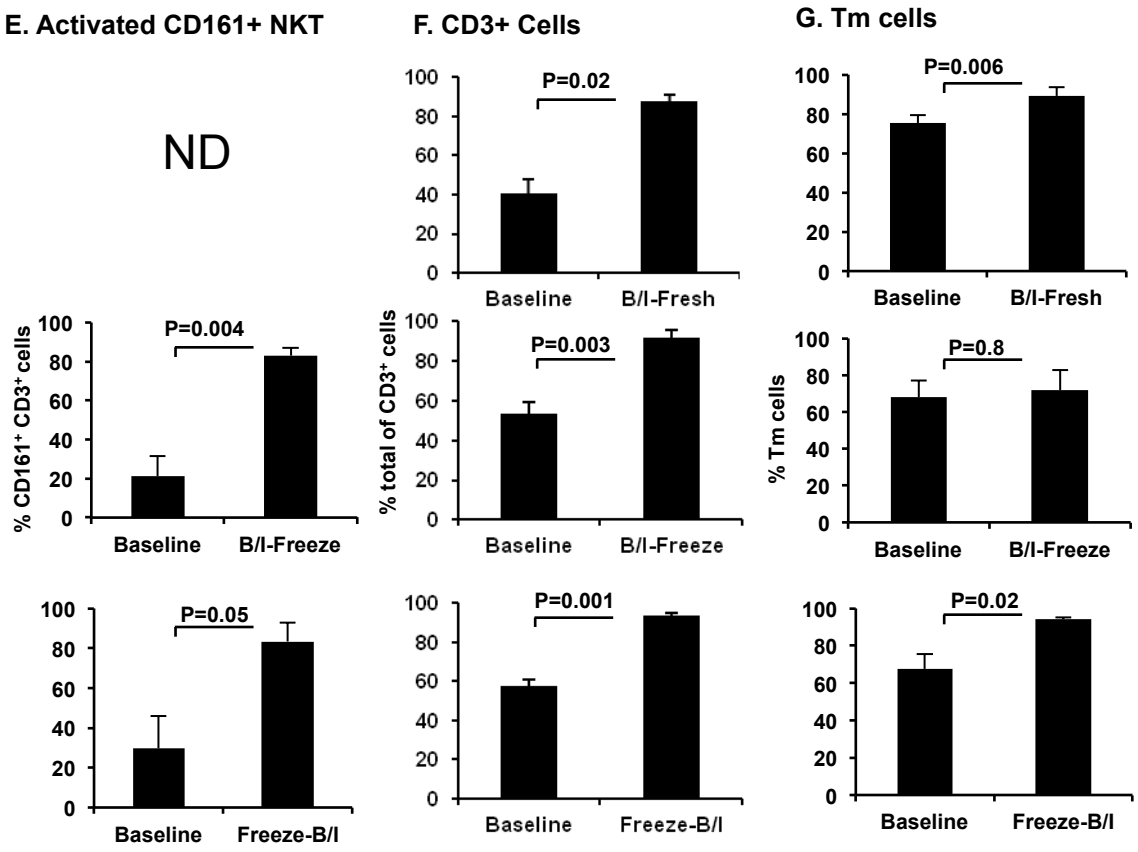
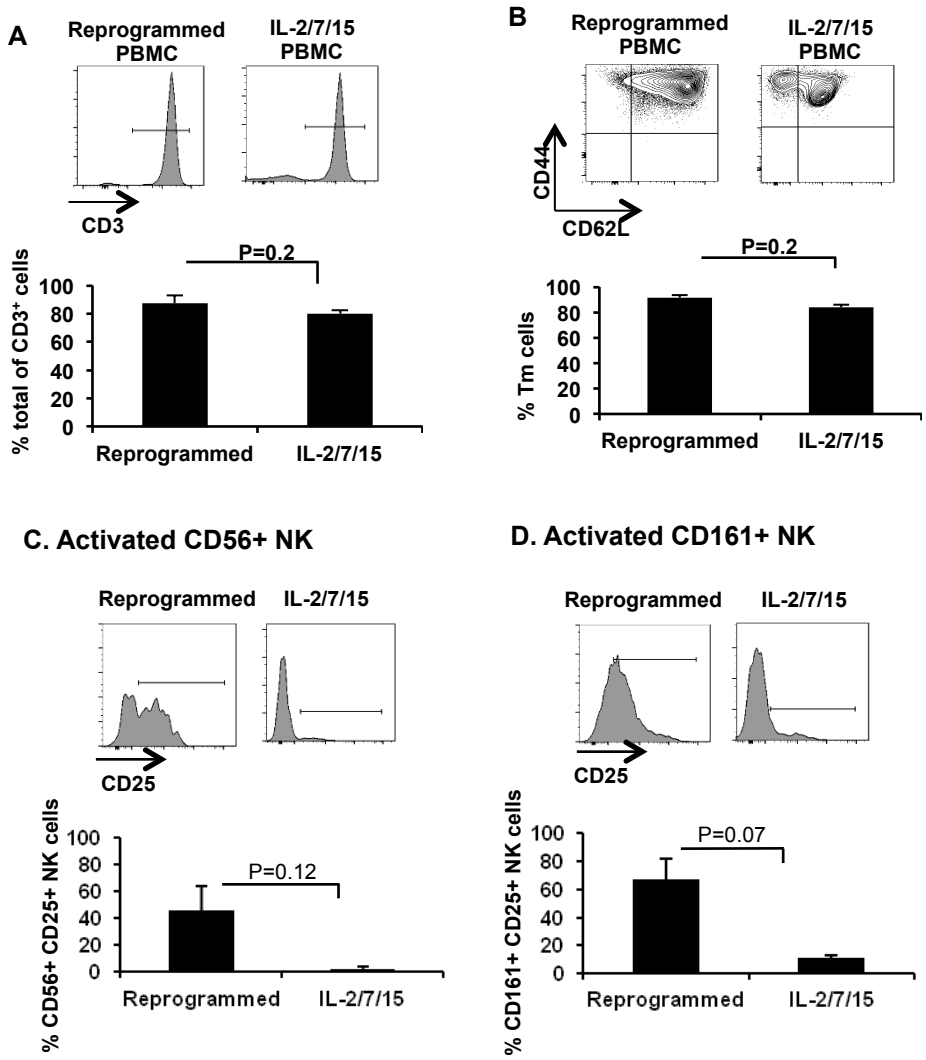
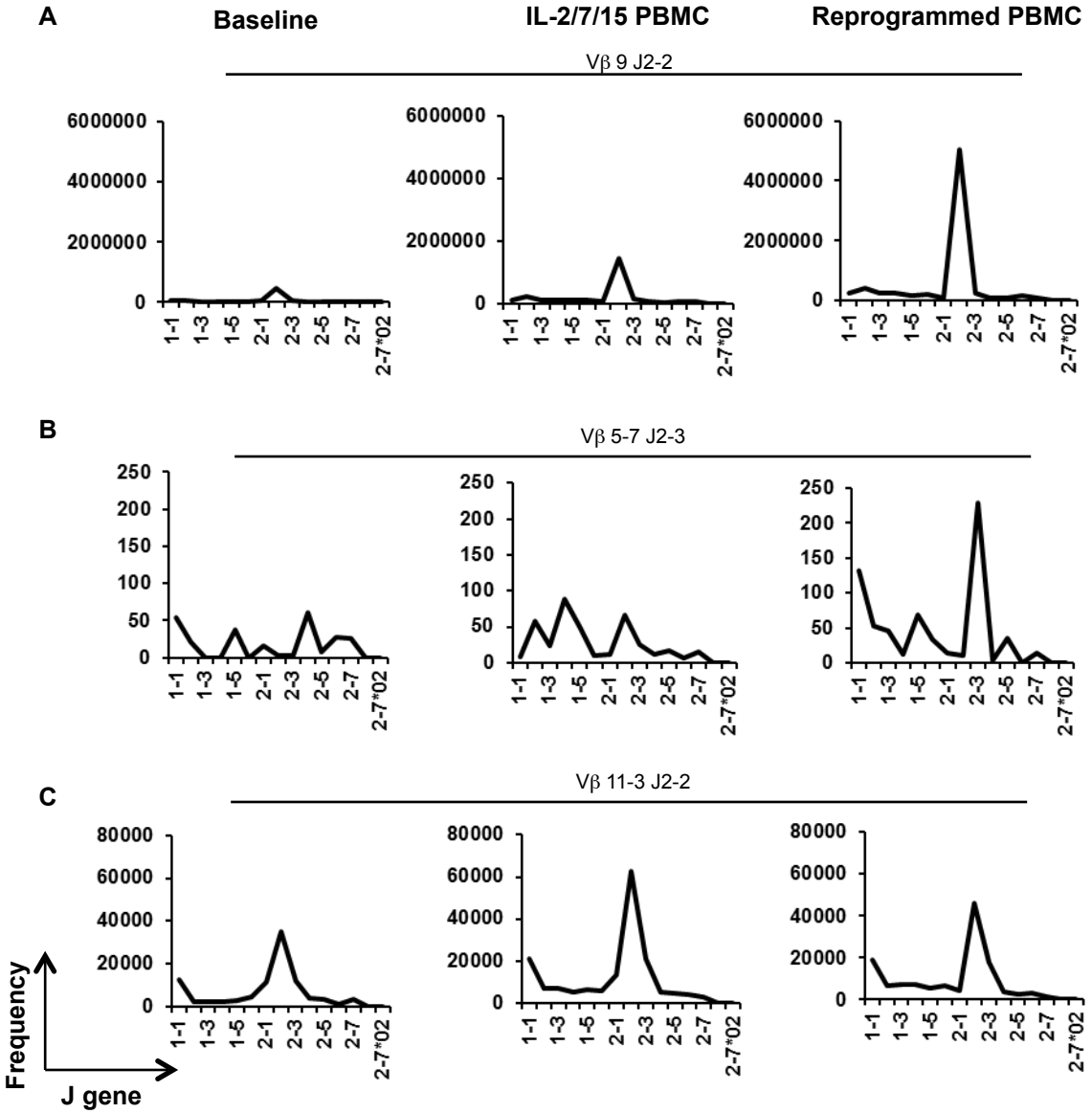

A
Fold Expansion (Log)
P=0.01
P=0.72
P=0.04
IL-2
B/I-Fresh
Freeze-B/I
B. Activated CD56+ NK
P=0.007
Baseline
B/I-Fresh
% CD56+ CD3- cells
P=0.009
Baseline
B/I-Freeze
P=0.02
Baseline
Freeze-B/I
C. Activated CD161+ NK
ND
% CD161+ CD3- cells
P=0.02
Baseline
B/I-Freeze
P=0.002
Baseline
Freeze-B/I
D. Activated CD56+ NKT
P=0.003
Baseline
B/I-Fresh
% CD56+ CD3+ cells
P=0.0001
Baseline
B/I-Freeze
P=0.0003
Baseline
Freeze-B/I



Supplemental Figure 1. Determination of cryosensitivity of the reprogrammed cells. A) Fold expansion compared to day one of IL-2 (n=13), B/I-Fresh (n=16) and Freeze-B/I (n=11) PBMCs. Cell counts were performed using trypan blue exclusion. Data represent Least Squares Means ± SEM. B)The percentage of activated CD56+ NK cells was determined in reprogrammed cells which included B/I-Fresh (n=6), B/I-Freeze (n=9), and Freeze-B/I (n=8). C) The percentage of activated CD161+ NK cells was determined in B/I-Freeze (n=5), and Freeze-B/I (n=3). D) The percentage of activated CD56+ NKT cells was determined in B/I-Fresh (n=6), B/I-Freeze (n=9), and Freeze-B/I (n=8). E) The percentage of activated CD161+ NKT cells was determined in B/I-Freeze (n=5), and Freeze-B/I (n=3). F) The percentage of total $CD3^+$ cells on gated lymphocyte region was determined in B/I-Fresh (n=5), B/I-Freeze (n=7), and Freeze-B/I PBMCs (n=8). G) The percentage of Tm cells was determined in B/I-Fresh (n=5), B/I-Freeze (n=7), and Freeze-B/I PBMCs (n=8). Data represent Mean ± SEM. ND = not done.



Supplemental Figure 2. Determination of the role of B/I in cellular reprogramming. PBMCs (n=3) were split into two groups and then subjected to reprograming protocol in the presence (Reprogrammed PBMC) or absence (IL-2/7/15 PBMC) of B/I. The frequency of (A) total $CD3^+$ cells, (B) Tm cells, (C) activated CD56+ NK cells, and (D) activated CD161+ NK cells was determined in Reprogrammed and IL2/7/15 PBMCs using flow cytometry. Data represent Mean ± SEM.



Supplemental Figure 3. Bryostatin 1 and Ionomycin selectively expand specific T cell clones. High-throughput sequencing of TcR Vβ was performed from one patient's PBMCs at baseline, after culture with γ-c cytokines only (IL-2/7/15 PBMC), or after reprogramming with B/I and γ-c cytokines (Reprogrammed PBMC). Representative data for the effect of reprogramming on the expansion of dominant clone (A), skewed clonality (B), or no impact on specific clones (C).