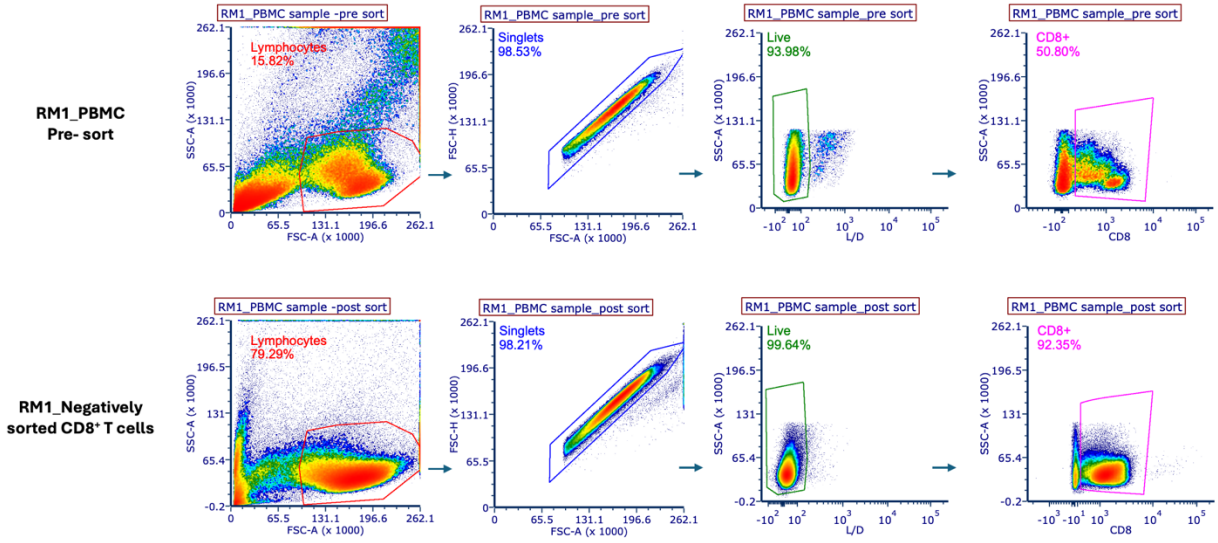
Supplemental Material 1: Representative flow cytometry plots showing CD8⁺ T cell enrichment following CD8⁺ T cell negative bead sorting of PBMC sample.



Gating strategy: Lymphocytes → Singlets → Live cells → CD8⁺ cells

Supplemental Material 2: Input sequences for cytokine promoters used for bisulfite reduced primer design

**Note these sequences were bisulfite converted before primer design.*

Key features highlighted:
Red- Transcription Start Site
Blue- CpG sites assessed
Green- Forward Primer
Pink- Reverse Primer

1. **IL2 promoter:** GenBank: EF457241
   https://www.ncbi.nlm.nih.gov/nuccore/133902284

TCAGACAGTTTGTGCATGCTACTGAGGATGAATGAACTCCTACCCTAAATATCCCAATCTGACTAAAAA
AAAGATCGTAACTATTATGGTTACATTCATAGTGTCCCAGGTGATTTAGAGAATAAATAAAAATCCATTAA
AGAGGTAAAGACATAAAAATGAGAAACATGGACTGGTTTACACATAACACATACAAAGTCTATTATAAAA
CTAGCATCAGTATCCTTGAATGCAAACCTTTTTCTGAGTATTTAACAATTGCACCCTTTAAAAAACGTAC
AATAGACATTAAAACACTTAAACAGATATATAAACATTTTAAAATTAAAACAGCGTAAAATAGTACCTCAA
GCTCAATAAGCATTTTATGTATTCTAATCTTAGTATTTCTCTAGCTGACATGTAAGAAGCAATCTATCTTAT
TGTATACAATTAGCTCATTGTGTGGATAAAAAGGTAAAACCATTCTGAAACAGGAAACCAAGATACTTCC
TGTTTAATCAACAAATCTAAACATTTATTCTTTTCATCTATTTATTCTTGCTCTTGTCCACCACAATATGCT
ACTCACATGTTCAGTGCAGTTTTATGACAAAGAGAAAATTTTCATGAGTTACTTTTGTATCCCCACCCC
CTTAAAGAAAGGAGGAAAAACTGTTTCATACAGAAGGCGTTAATTGCATGAATTAGAGCTATCACCTAA
GTGTGGGCTAATGTAACCATGAGGGATTTCACCTACATCCATTCAGTCAGTCTTTGGGGGTTTAAAGA
AATTCCAAAGAGTCATCAGAAGAGGAAAAATGAAGGTAATGTTTTTTCAGACAGGTAAAGTCTTTGAAA
ATATGTGTAATATGTAAAACATTTTGACACCCCCATAATATTTTTCCAGAATTAACAGTATAAATTGCATCT
CTTGTTCAAGAGTTCCCTATCACTCTCTTTAATCACTACTCACAGTAACCTCAACTGCTGCCACAATGT
ACAGGATGCAACTCCTGTC

2. **IFNγ promoter:** GenBank: AY486428.1
   https://www.ncbi.nlm.nih.gov/nuccore/AY486428.1

AAATTTTAAAAGGCTCCCCCTTTGTAAAGGTTTGAGAGGCCCTAGAATTTCCTTTTTCACTTGTTCCCA
ACCACAAGCAAATGATCAATGTGCTTTGTGAATGAGGAGTCAACATTTTACCAGGGTGAAGGGGGGA
GGTGCGAAAAAATTTCCAGTCCTTGAATGGTGTGAAGTAAAAGTGCCTTCAAAGAATCCCACCAGAAT
GGCACAGGTGGGCATAATGGGTCTGTCTCATCGTCAAAGGACCCAAGGAGTCTAAAGGAAACTCTAA
CTACAACACCCAAATGCCACAAAACCTTAGTTATTAATACAAACTAGCATCCCTGCCTATCTGTCACCAT
CTCATCTTAAAAAACTTGTGAAAATACGTAATCCTGAGGAGACTTCAATTAGGTATAAATACCAGCAGCC
AAAGGAGGTGCAGCACATTGTTCTGATCATCTGAAGATCAGCTATTAGAAGAGAAAGATCAGTTAAGC
CCTTTGGACCCGATCAACTTGATACAAGAACTTCTGATTTCAACTTCTTTGGCTTAACTCTCTCTGAAA
CGATG

3. **TNFα promoter:** GenBank: AY486430
   https://www.ncbi.nlm.nih.gov/nuccore/AY486430.1

CTTTGAGGGGCAGGAGGACGGGATTCAACCTCCAGAGTCCCACACACAAATCAGTCAGAGGCCCAG
AAGACCCCCCTCGGAATCGGAGCAGGGATGGTGGGGAGAGTGAGGAGTATCCTTGATGCTTGGGTG
TCCCCAACTTTCCAAATCCCCGCCCCCGCGATGGAGAAGAAACCAAGACAGAAGGTGCAGGGCCCA
CTACCGCTTCCTCCAGATGAGCTCATGGGTTTCTCCACCAAGGAAGTTTTCCGCTGGTTGAATGATTC

TATCCCCGCCCTCTCGCCCCAGGGACATATAAACGCAGTTGTTTGCACACCCAGCCAGCAGACGCTC
CCTCAGCAAGGACAGCAGAGGACCAGCTAAGAGGGAGAGAAGCAACTCCAGACCCCAACTGAAAAA
AAACCCTCAGACGCCACATCCCCAGACAAGCTGCCAAGCGGGTTCTCTCCCTCTCACACACTGACC
CAGGGCTCCACCCTCTCTTCACTGGAAAGGACACCATG