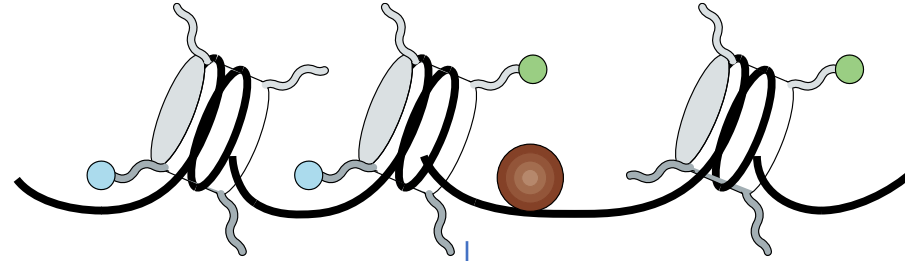


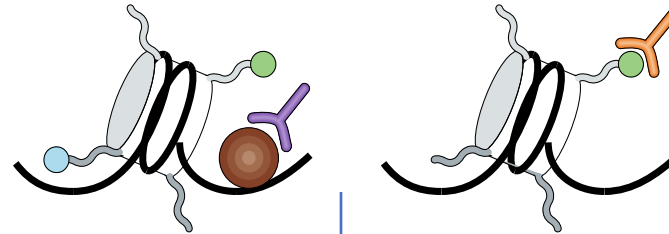
**HiSur Protein G Beads (HPG1000) & MonoMag
Protein G Beads (MPG1000) in ChIP**

CHIP-Seq Protocol

DNA bound by histones and transcription factors

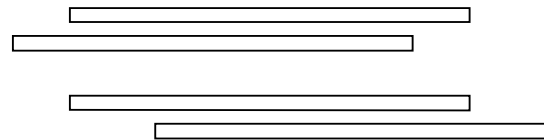


Target protein of interest with Antibody

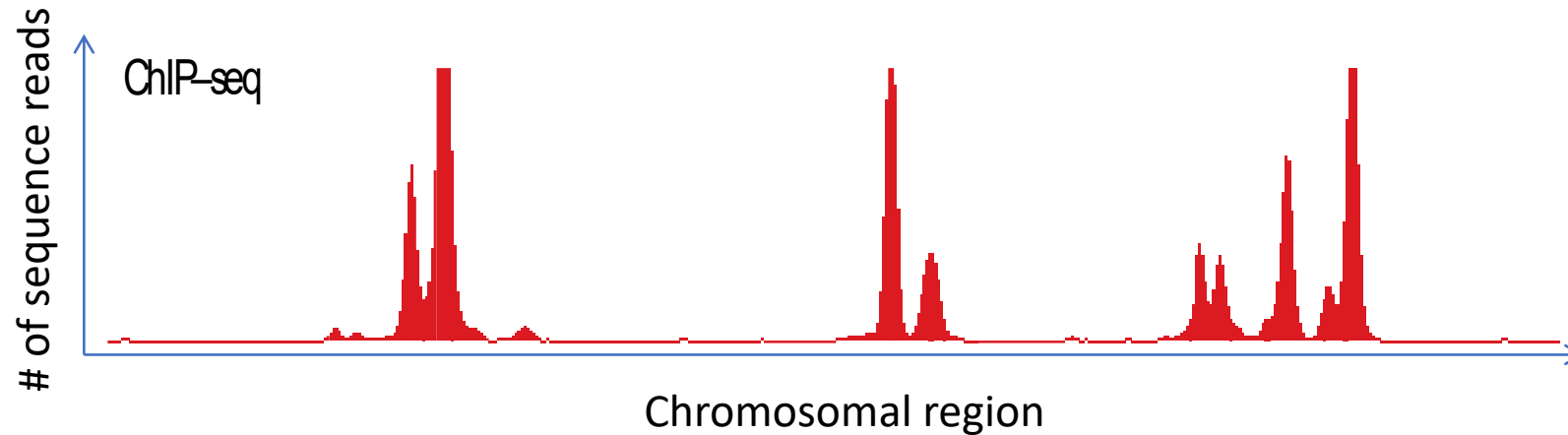


Protein G beads used to isolate antibody-chromatin complexes

Sequence DNA bound by protein of interest



ChIP-seq Data

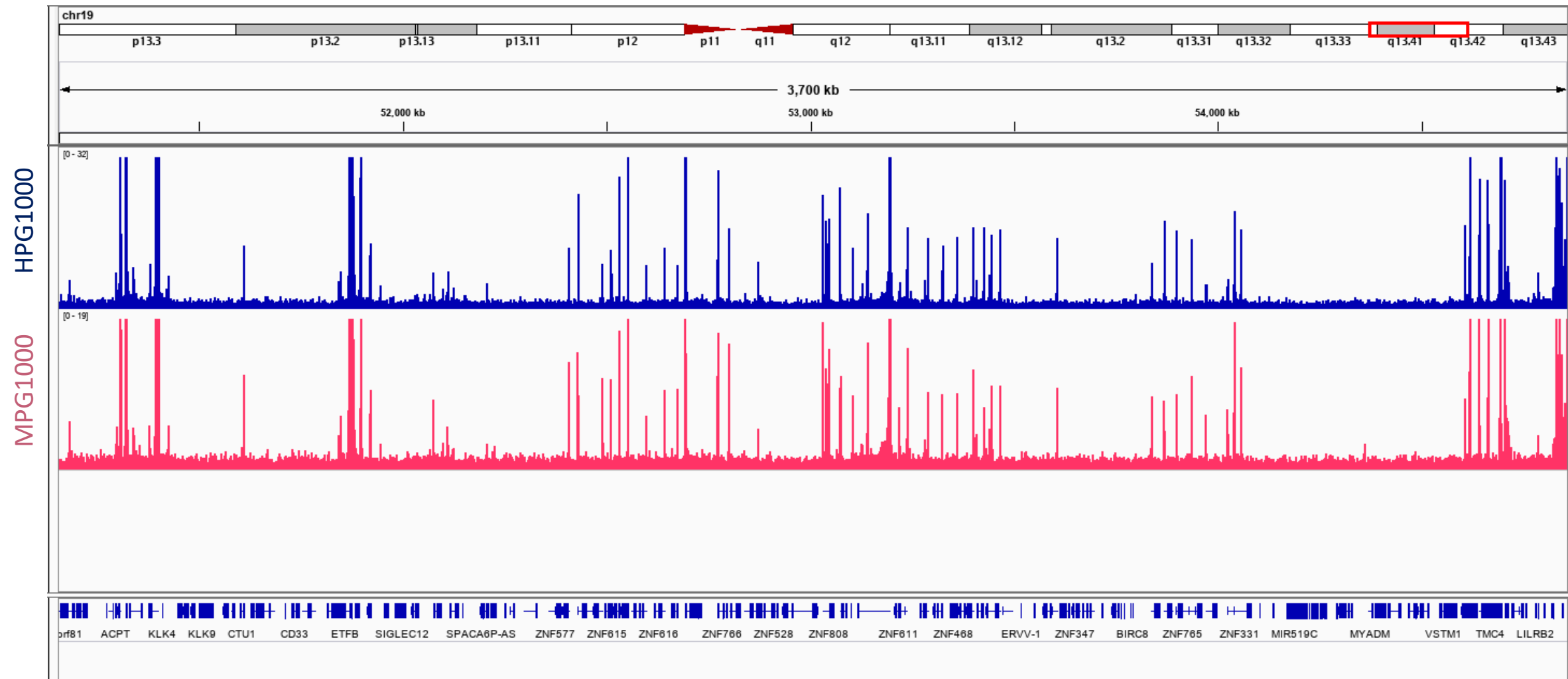


Basic interpretation:

Signal map to represents binding profile of protein to DNA (or antibody to histone-specific modification)

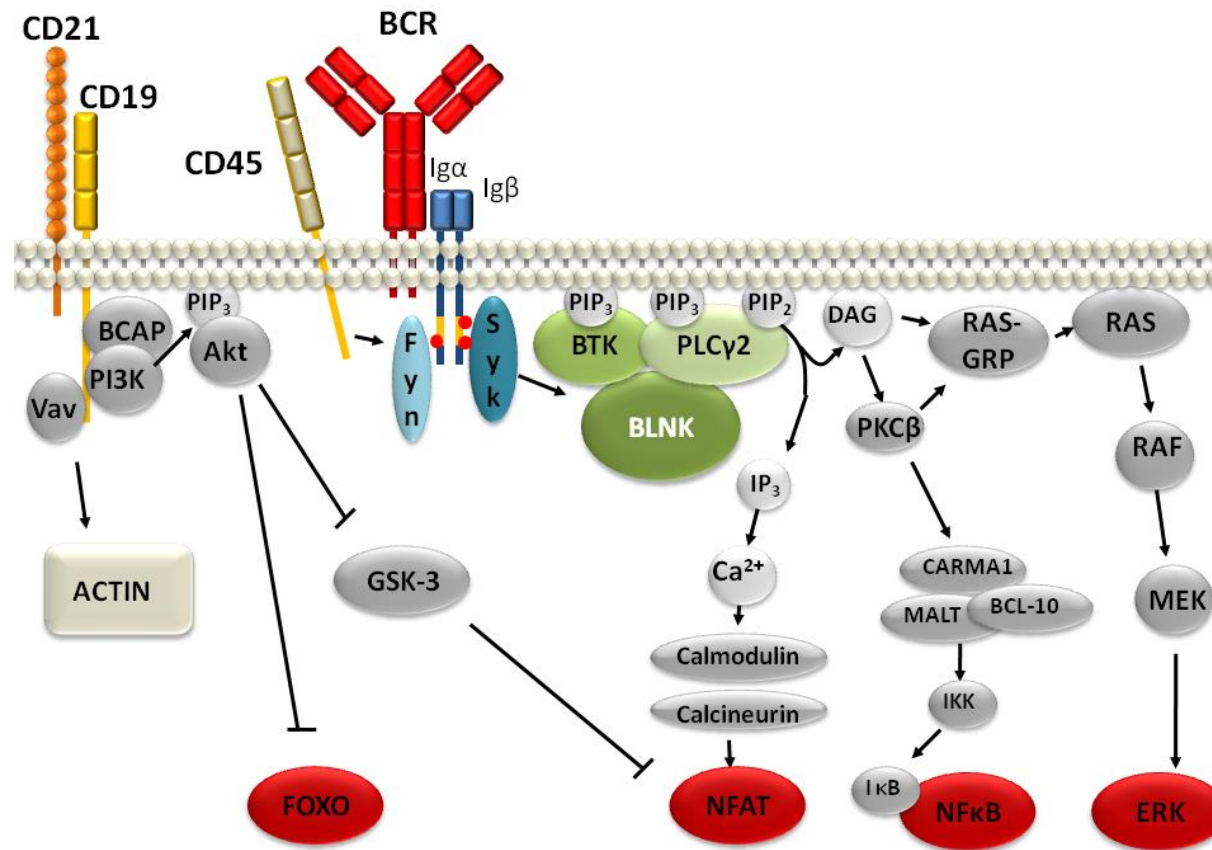
Histone H3K27ac ChIP-Seq with Ocean NanoTech's Protein-G Beads

H3K27ac active enhancer mark

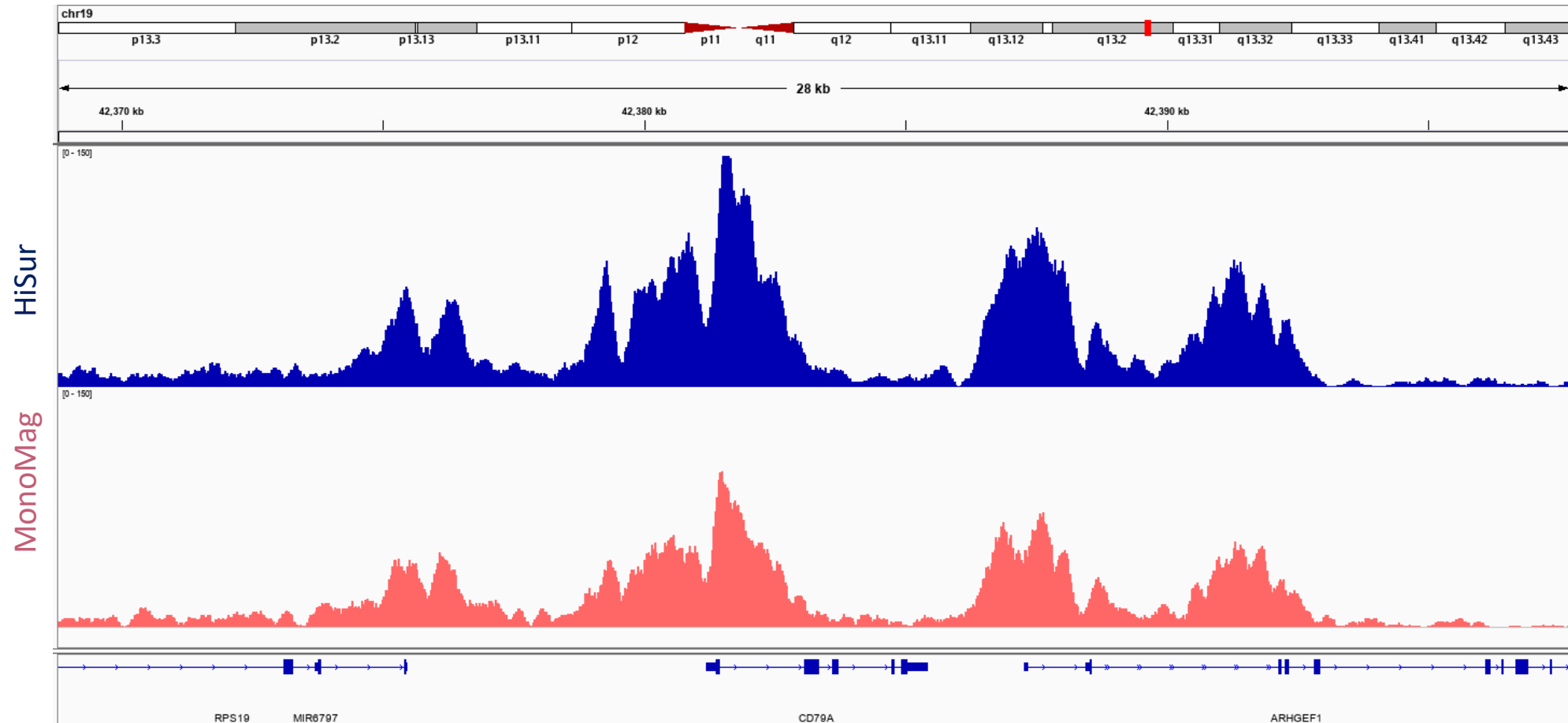


H3K27ac ChIP-Seq track showing regions of chromosome 19. Chromatin from cross-linked and sonicated GM12878 lymphoblastoid cells was used in chromatin immunoprecipitation reactions with antibody specific for histone H3, acetylated lysine 27. Ocean NanoTech's HiSur Protein G Beads (HPG1000) and MonoMag Protein G Beads (MPG1000) were used to isolate chromatin-antibody complexes, associated DNA was purified and used in Swift 2S Library Prep followed by sequencing. Peaks indicating sites of H3K27ac enrichment obtained with both bead types are shown for a 3700 kb stretch of chr19.

GM12878 lymphoblastoid = B cell line

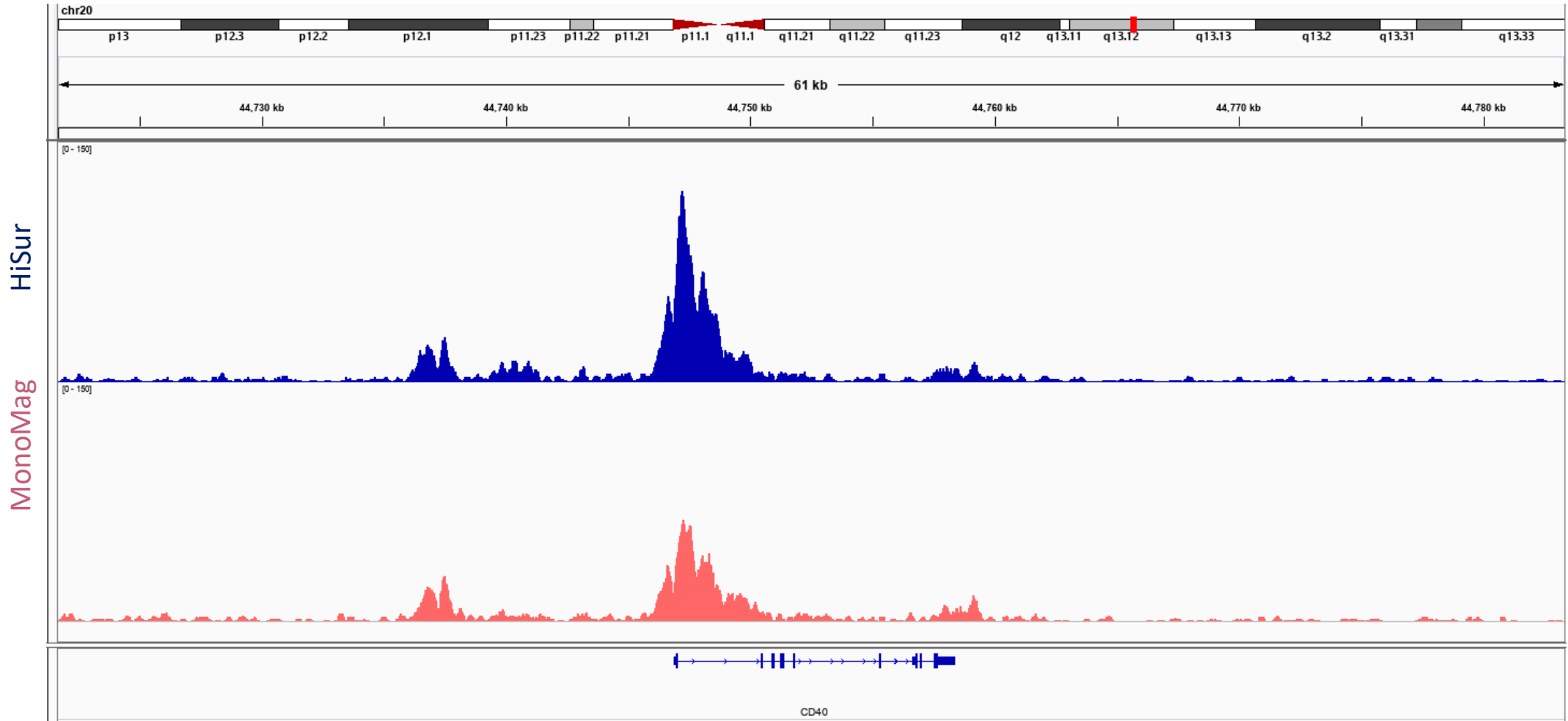


B cell receptor CD79 (Ig α)



H3K27ac ChIP-Seq track showing genomic enrichment for the B cell receptor protein CD79 α . Chromatin from cross-linked and sonicated GM12878 lymphoblastoid cells was used in chromatin immunoprecipitation reactions with antibody specific for histone H3, acetylated lysine 27. Ocean NanoTech's HiSur Protein G Beads (HPG1000) and MonoMag Protein G Beads (MPG1000) were used to isolate chromatin-antibody complexes, associated DNA was purified and used in Swift 2S Library Prep followed by sequencing. Enrichment of H3K27ac at the CD79 α promoter is consistent with the fact that GM12878 is a B cell line and therefore should exhibit significant CD79 α expression.

CD40 co-stimulatory protein



H3K27ac ChIP-Seq track showing genomic enrichment for the B cell co-stimulatory molecule CD40. Chromatin from cross-linked and sonicated GM12878 lymphoblastoid cells was used in chromatin immunoprecipitation reactions with antibody specific for histone H3, acetylated lysine 27. Ocean NanoTech's HiSur Protein G Beads (HPG1000) and MonoMag Protein G Beads (MPG1000) were used to isolate chromatin-antibody complexes, associated DNA was purified and used in Swift 2S Library Prep followed by sequencing. Enrichment of H3K27ac at the CD40 promoter & gene body is consistent with the fact that GM12878 is a B cell line, as an antigen presenting cell, should exhibit significant CD40 expression.