

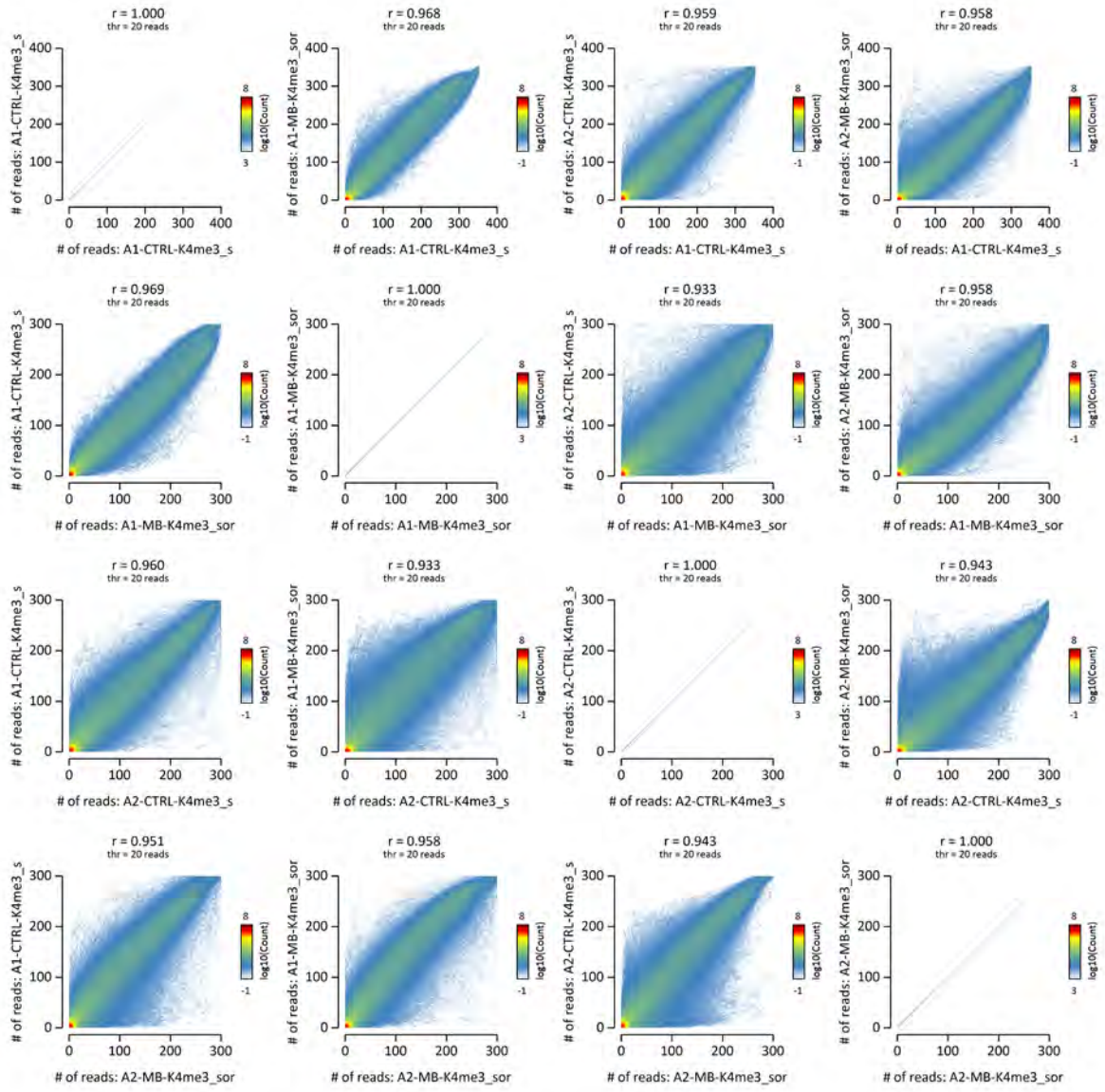
Alveolar macrophage chromatin is uniquely modified to orchestrate host response to *Mycobacterium bovis* infection

Thomas Jonathan Hall, Douglas Vernimmen, John Andrew Browne, Michael P. Mullen, Stephen Vincent Gordon, David Evan MacHugh and Alan Mark O'Doherty

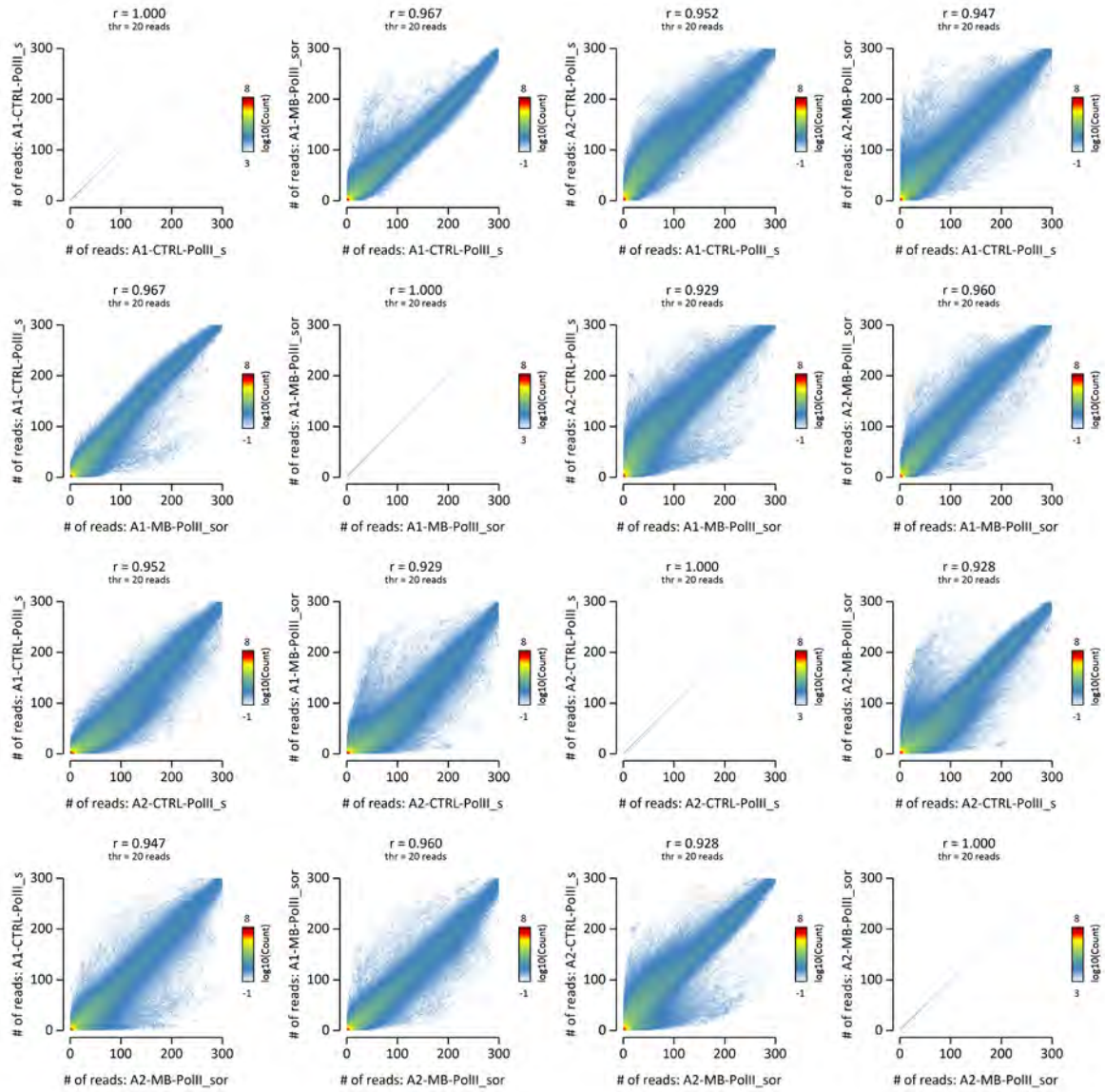
Supplementary Figures

Supplementary Figure 1 (following 3 pages): Genome wide signal intensity correlation histograms of raw ChIP-seq reads.

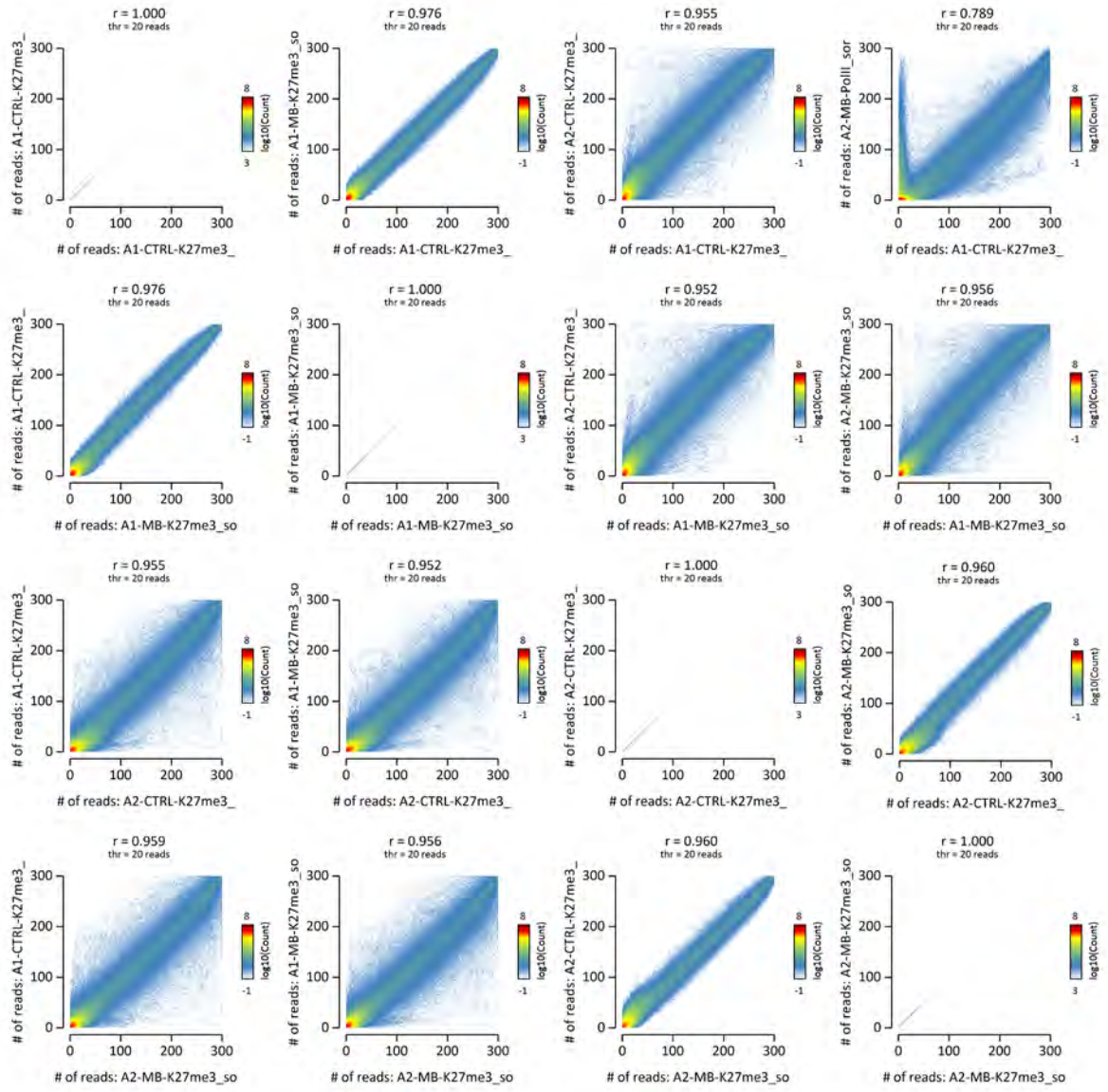
2D-histograms of the global levels of (A) H3K4me3, (B) Pol II and (C) H3K27me3. Reads from each animal and each condition are correlated based on read position and alignment. Plots and values were obtained using the 'Correlate' tool of easeq bioinformatics tool with the window size set to 1000 bp and max values on axes as 200 counts. r values are genome-wide Pearson's correlation coefficients for the datasets.



A



B



C

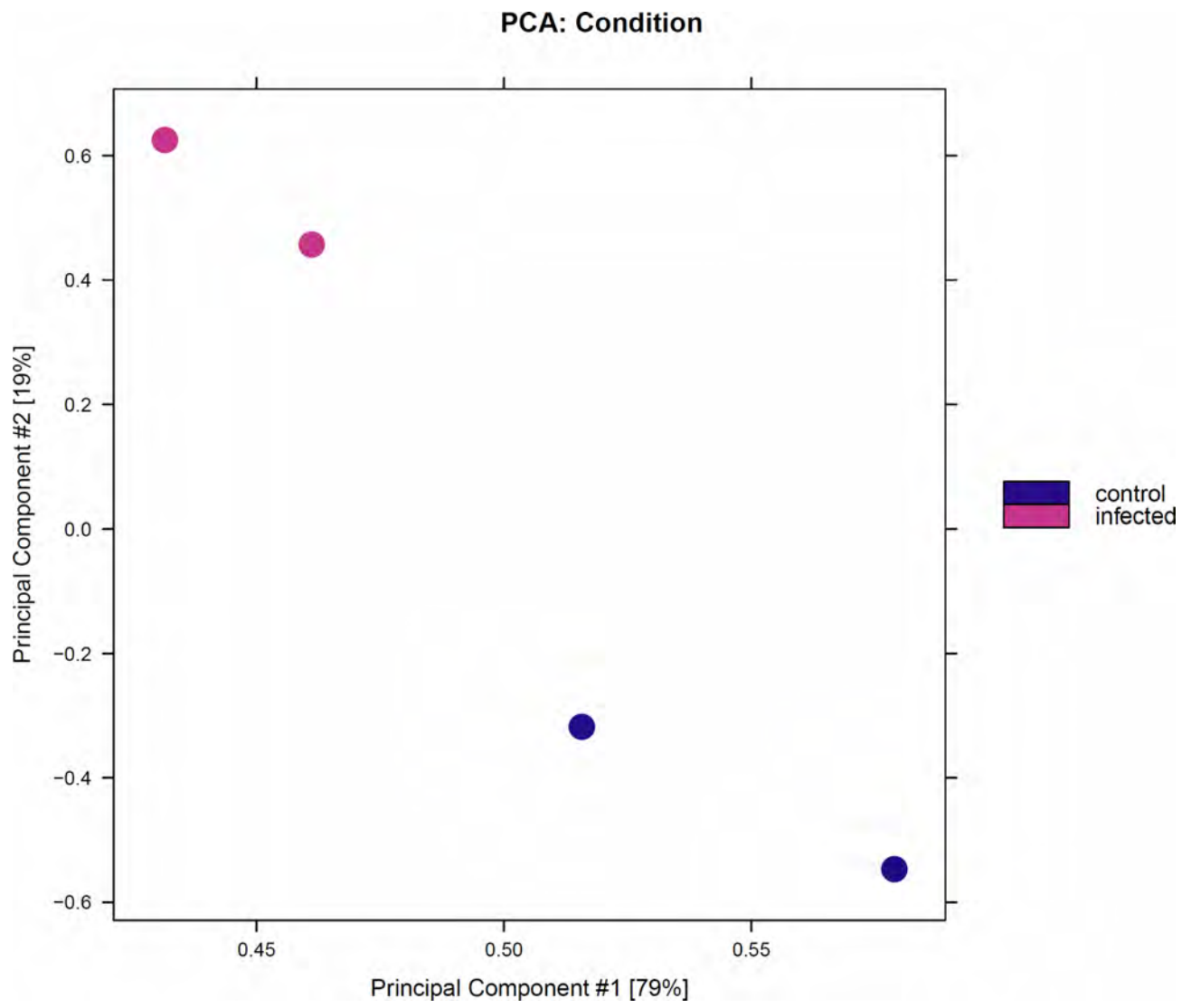
Supplementary Figure 2: Correlation heatmap of Pol II occupancy and overall H3K27me3 peak size.

Correlation heatmap demonstrating the relative levels of Pol II and H3K27me3 peak density and size with a blue colour scale (white = no peak, dark blue = dense peak) at the TSS of a gene identified as having differential Pol II and H3K4me3 peaks (y axis). The plot indicates a negative correlation between the size of Pol II peaks and the size of H3K27me3 peaks.

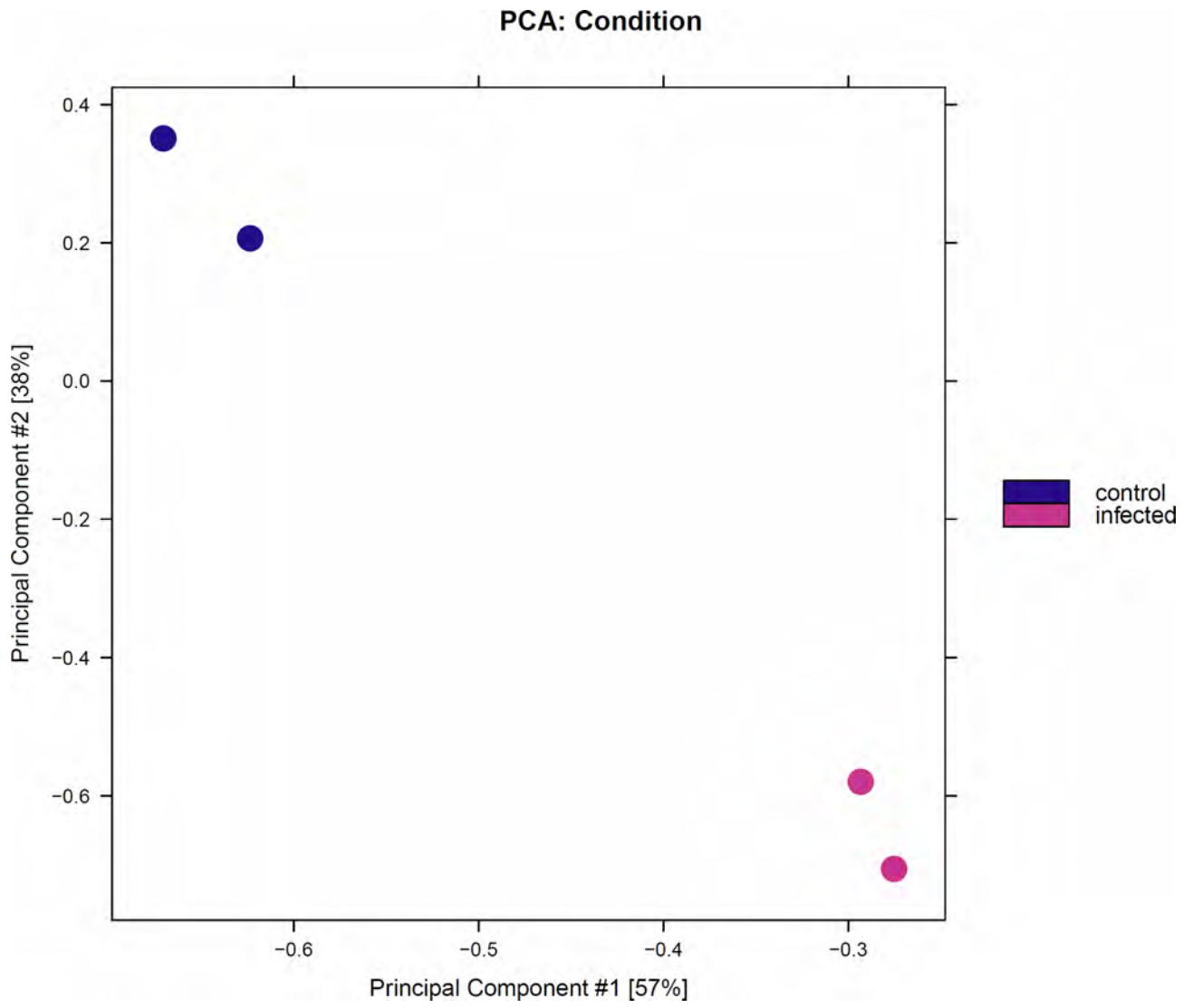
Supplementary Figure 3 (following 3 pages): Principle component analysis of differential ChIP-seq peaks between conditions.

PCA plots of (A) H3K4me3, (B) Pol II and (C) H3K27me3 ChIP-seq peak differences between control and infected samples generated by R tool DiffBind. H3K4me3 and Pol II peaks cluster strongly by condition.

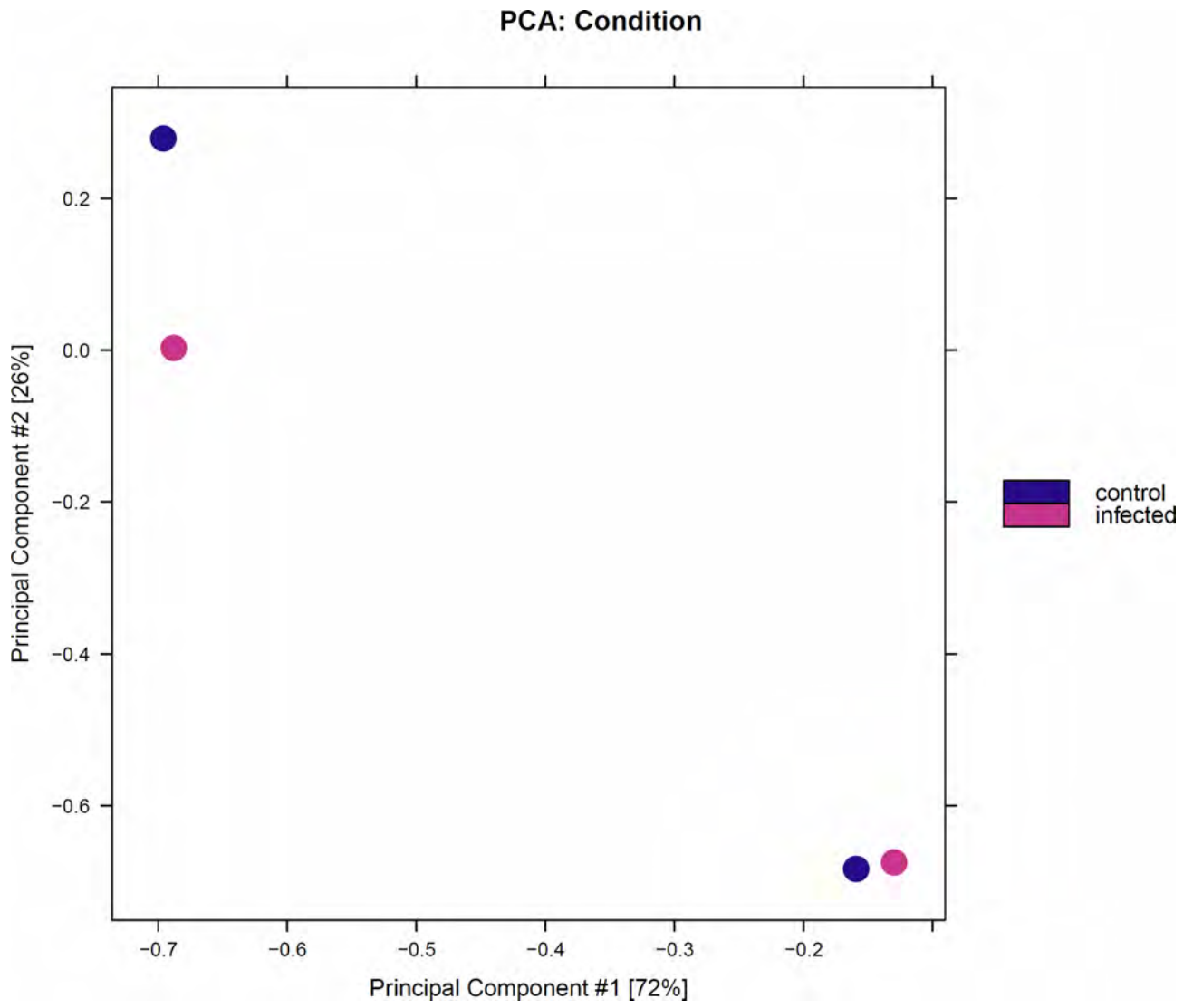
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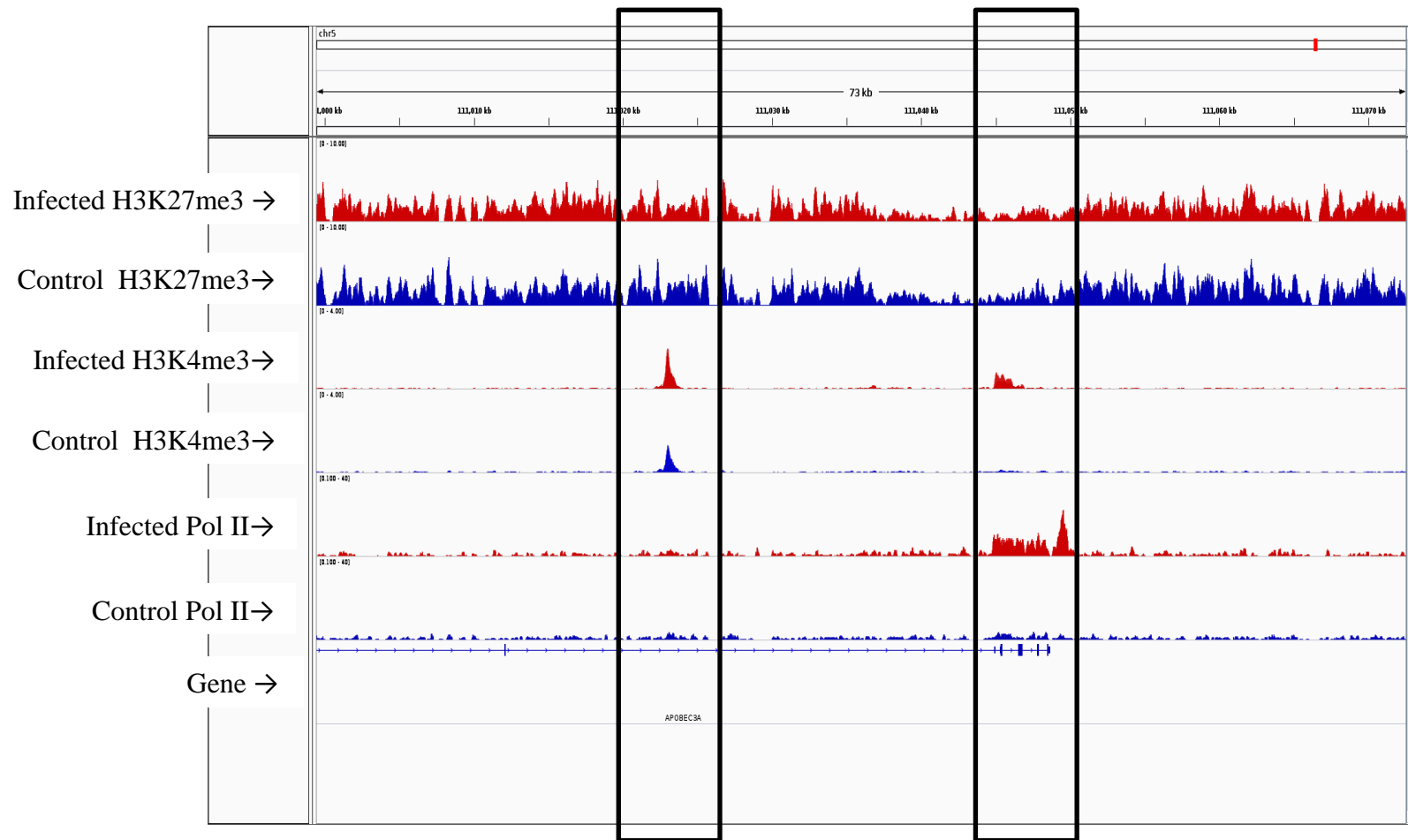


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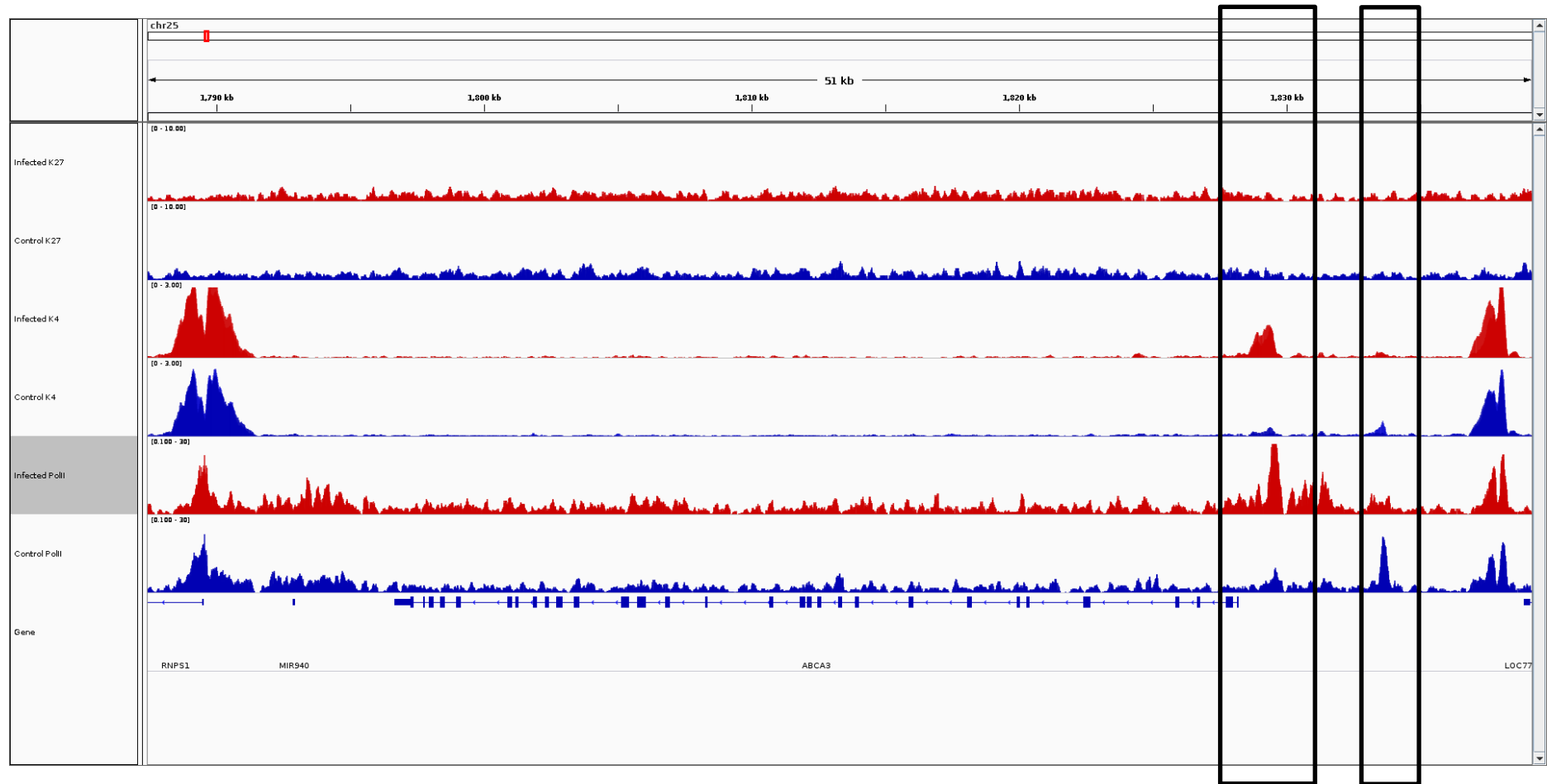


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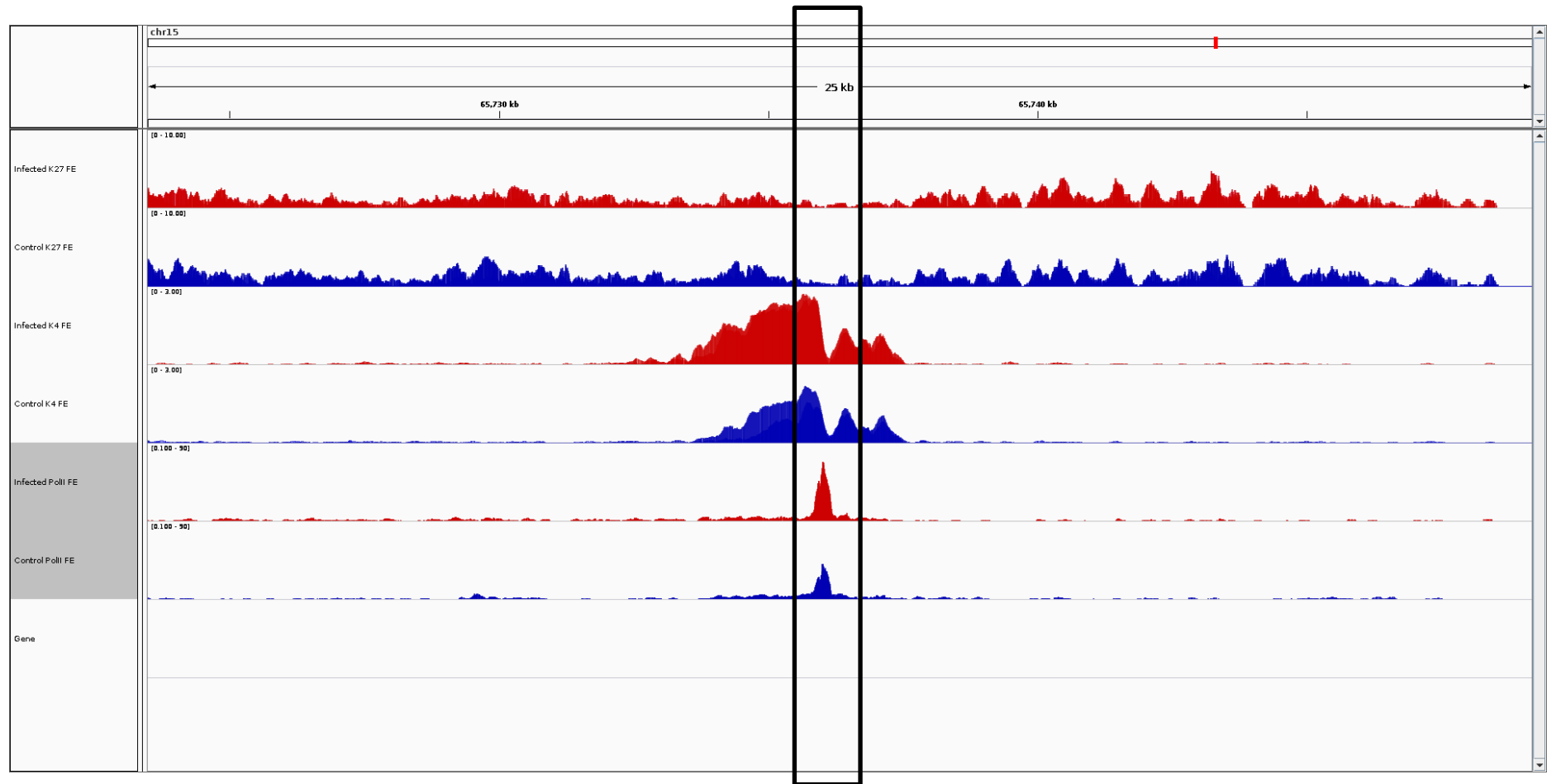




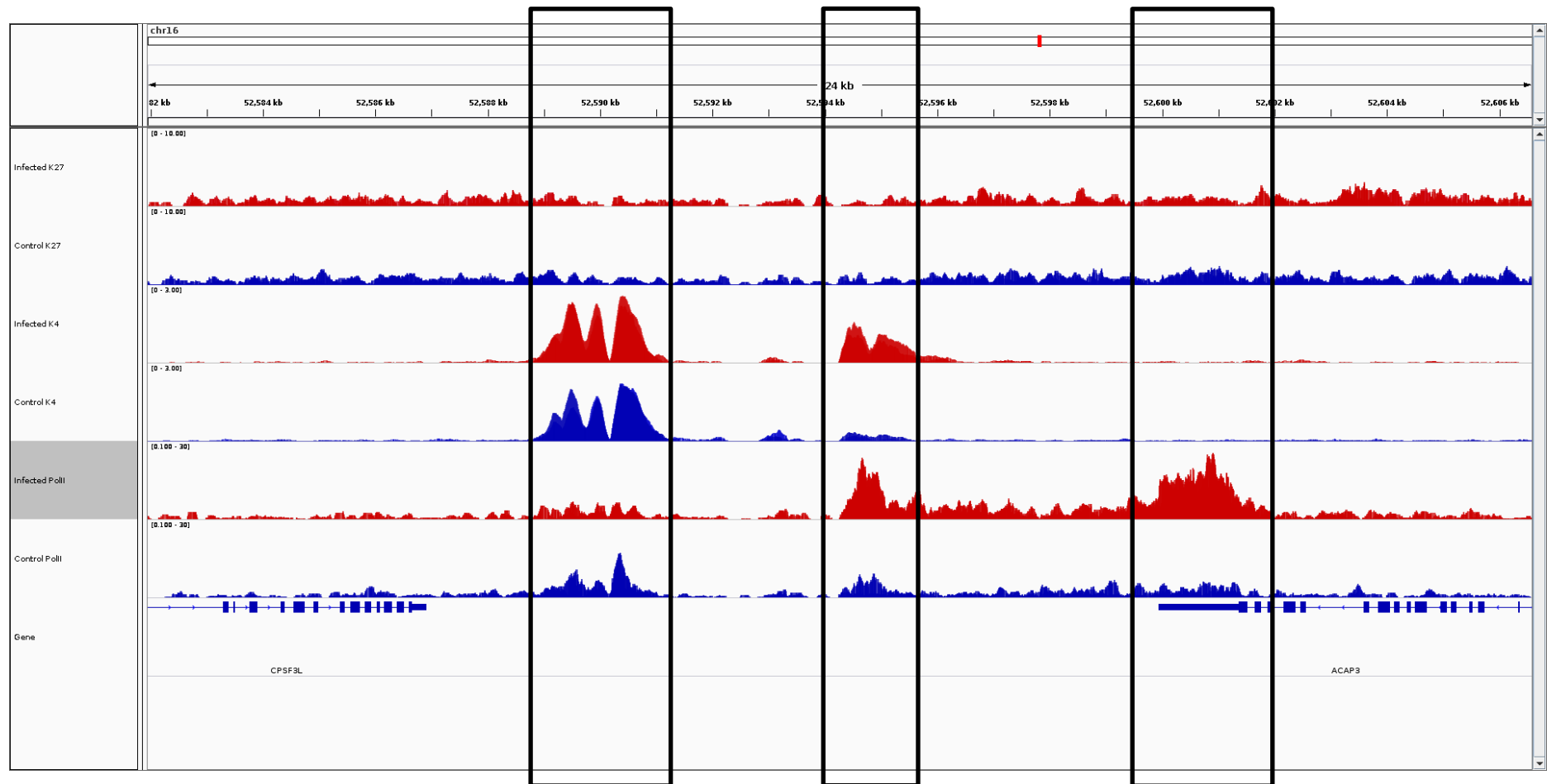
Supplementary figure 4 (following 235 pages). IGV plot showing CHIP-seq tracks. Black open boxes highlight loci that are differentially enriched for methylation at histone 3 lysine 4 (H3K4me3) and/or RNA polymerase II (Pol II) occupancy.



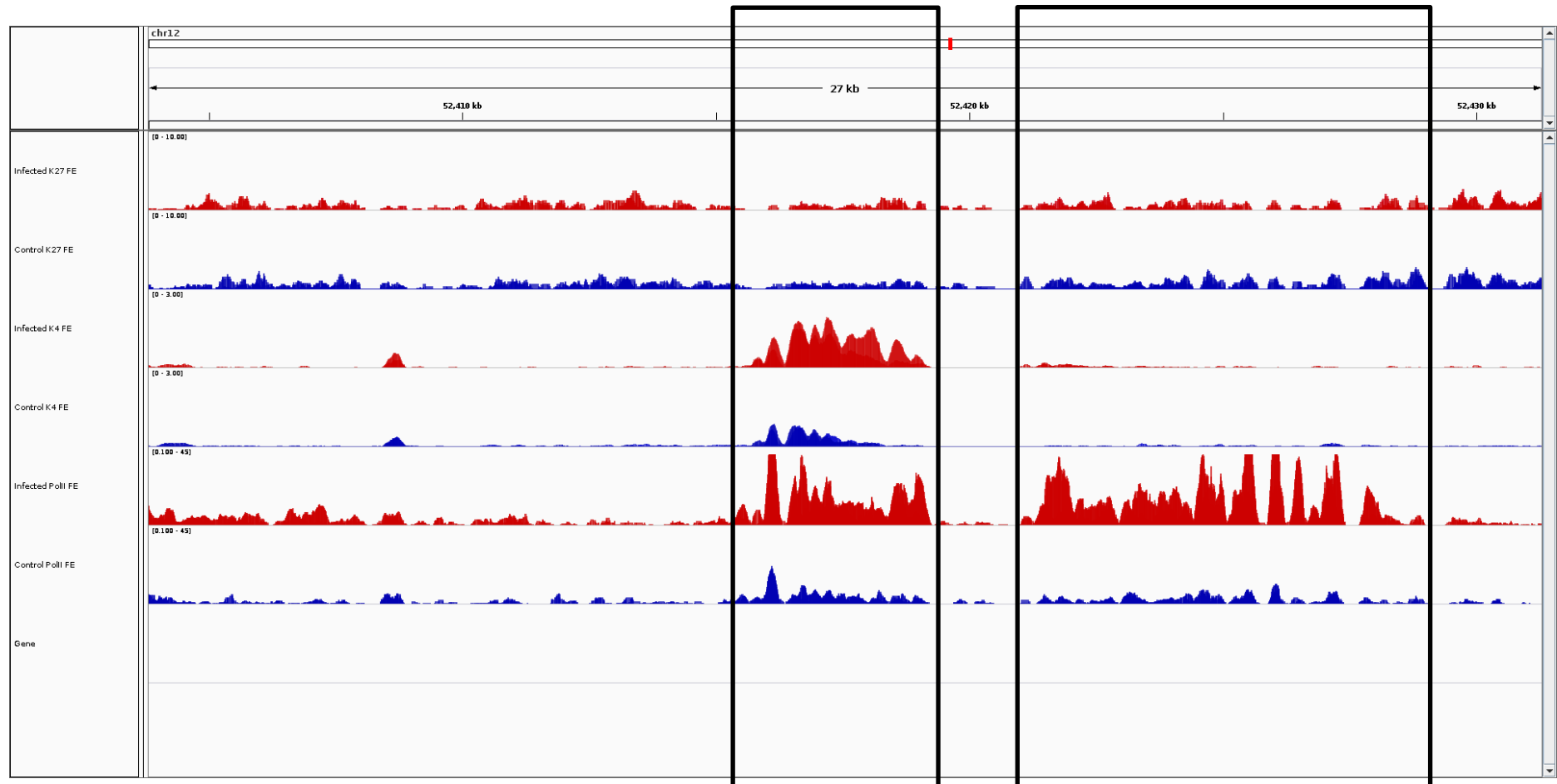
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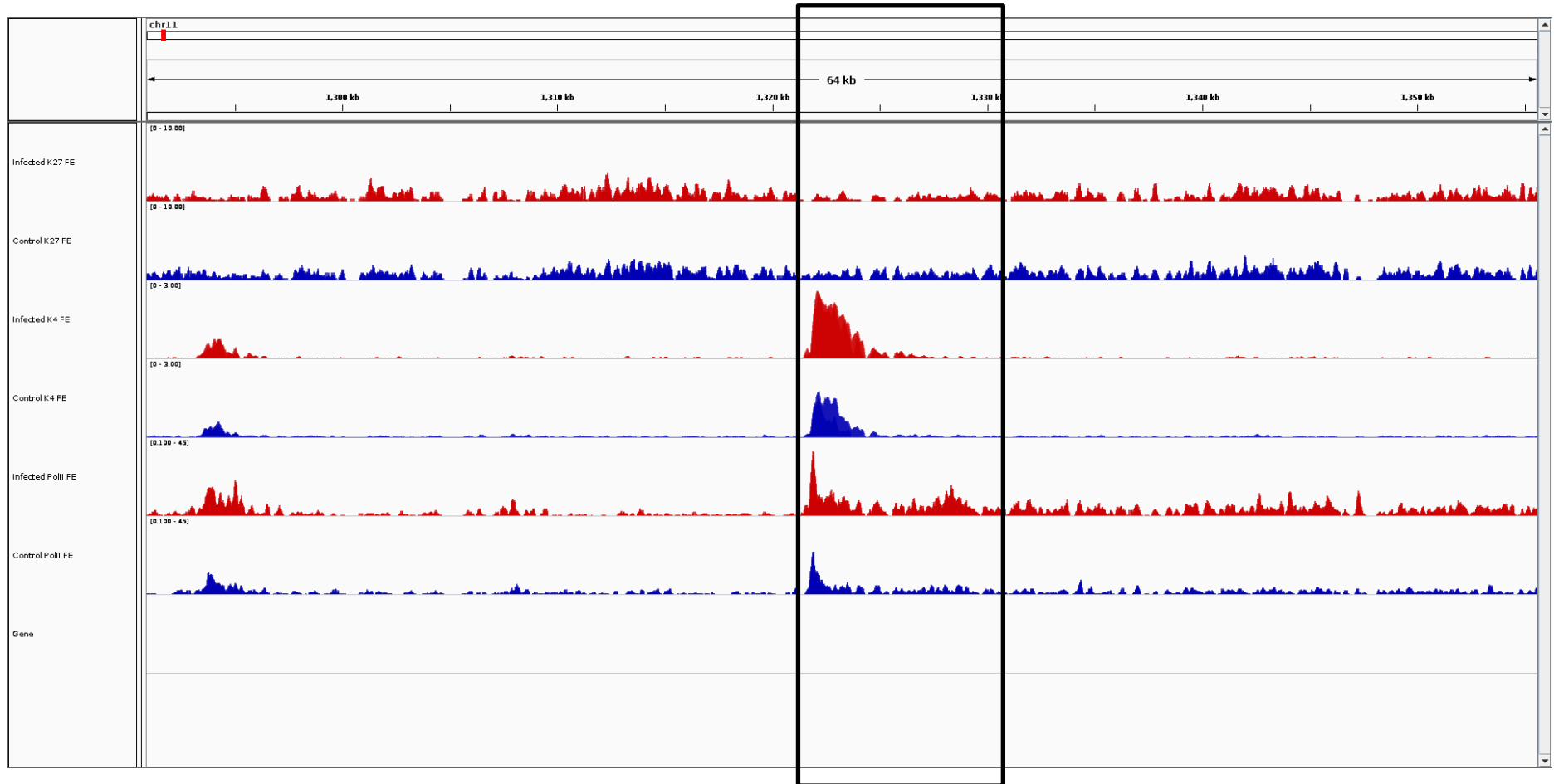
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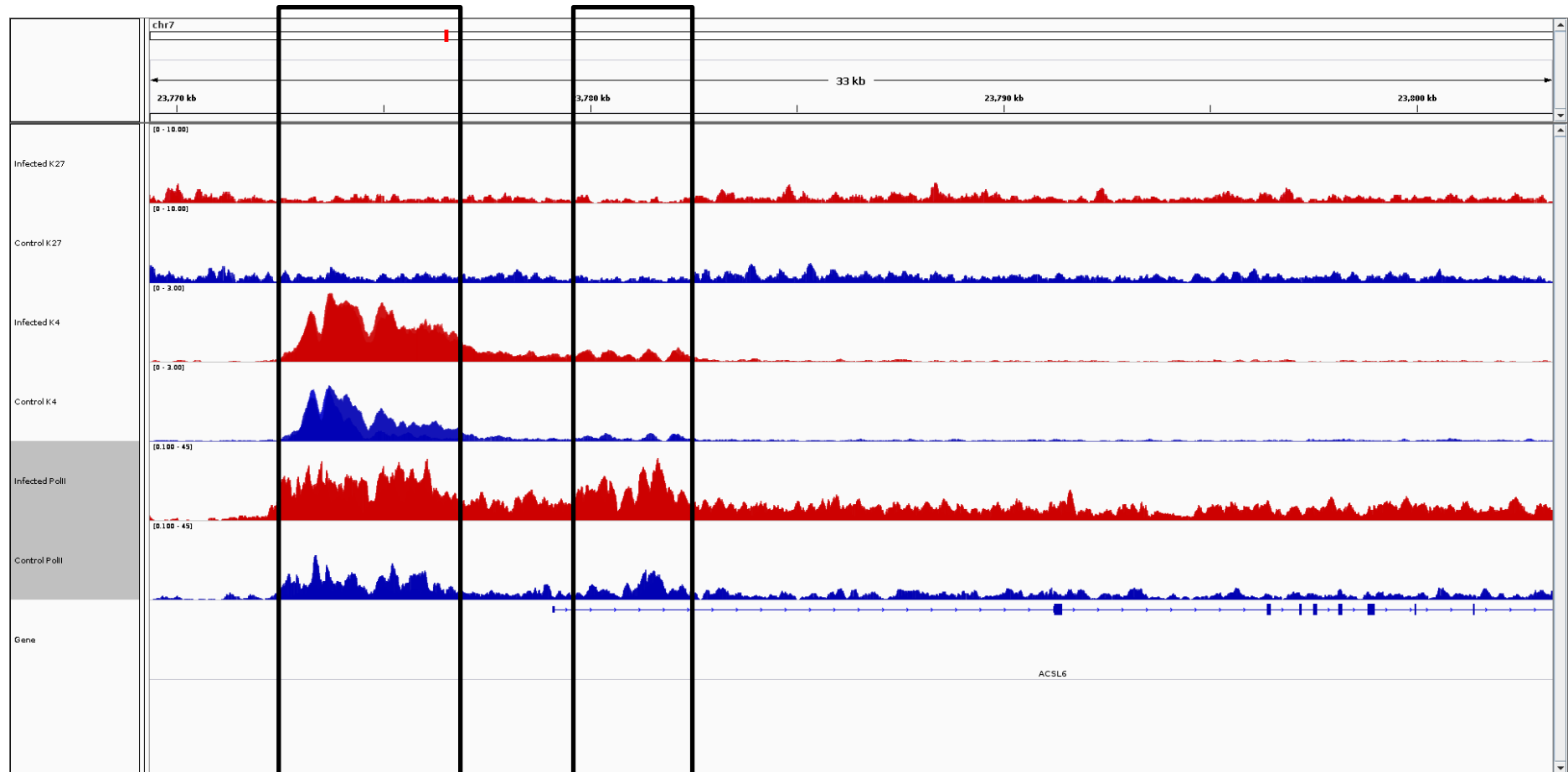
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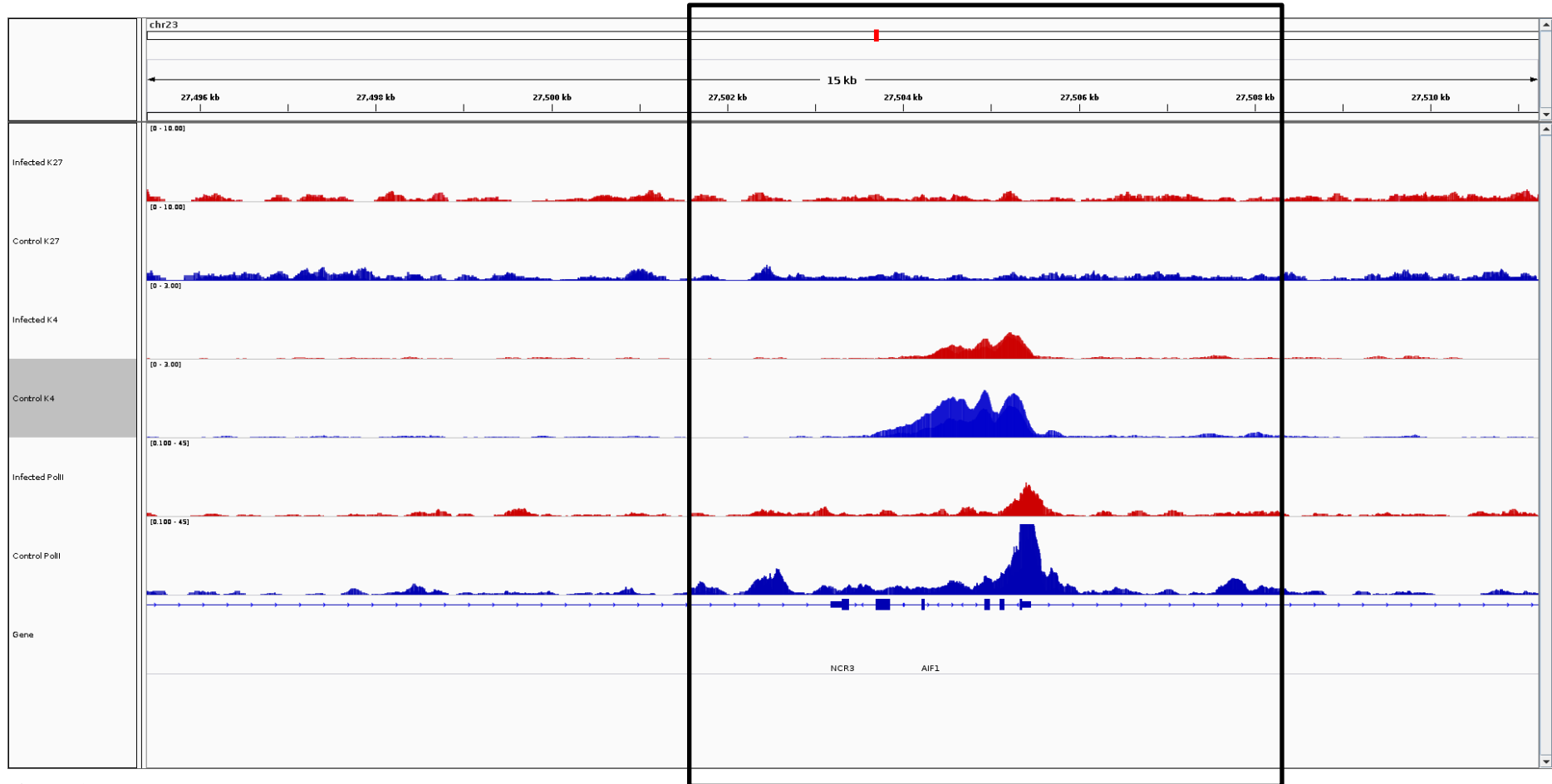
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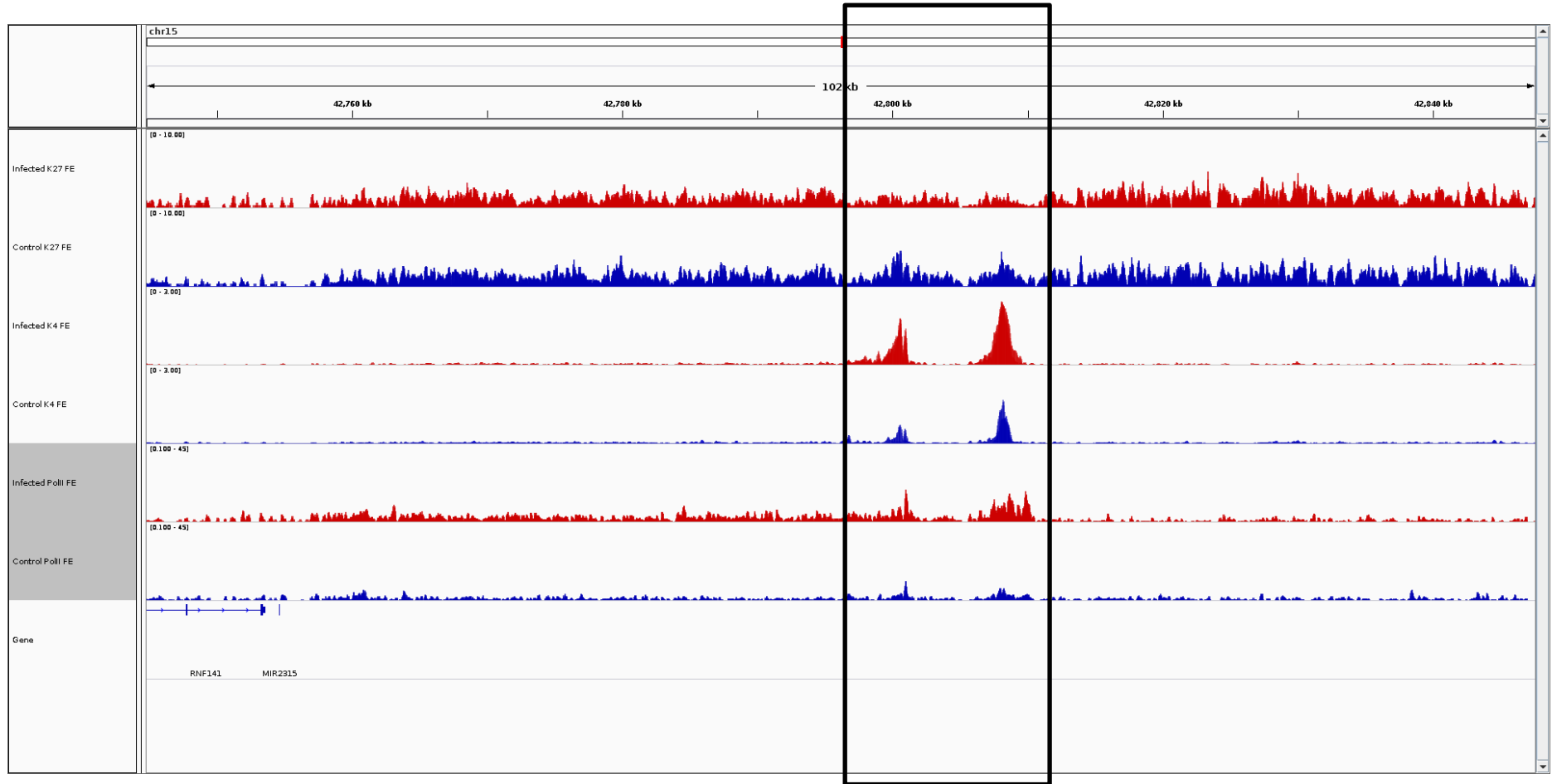
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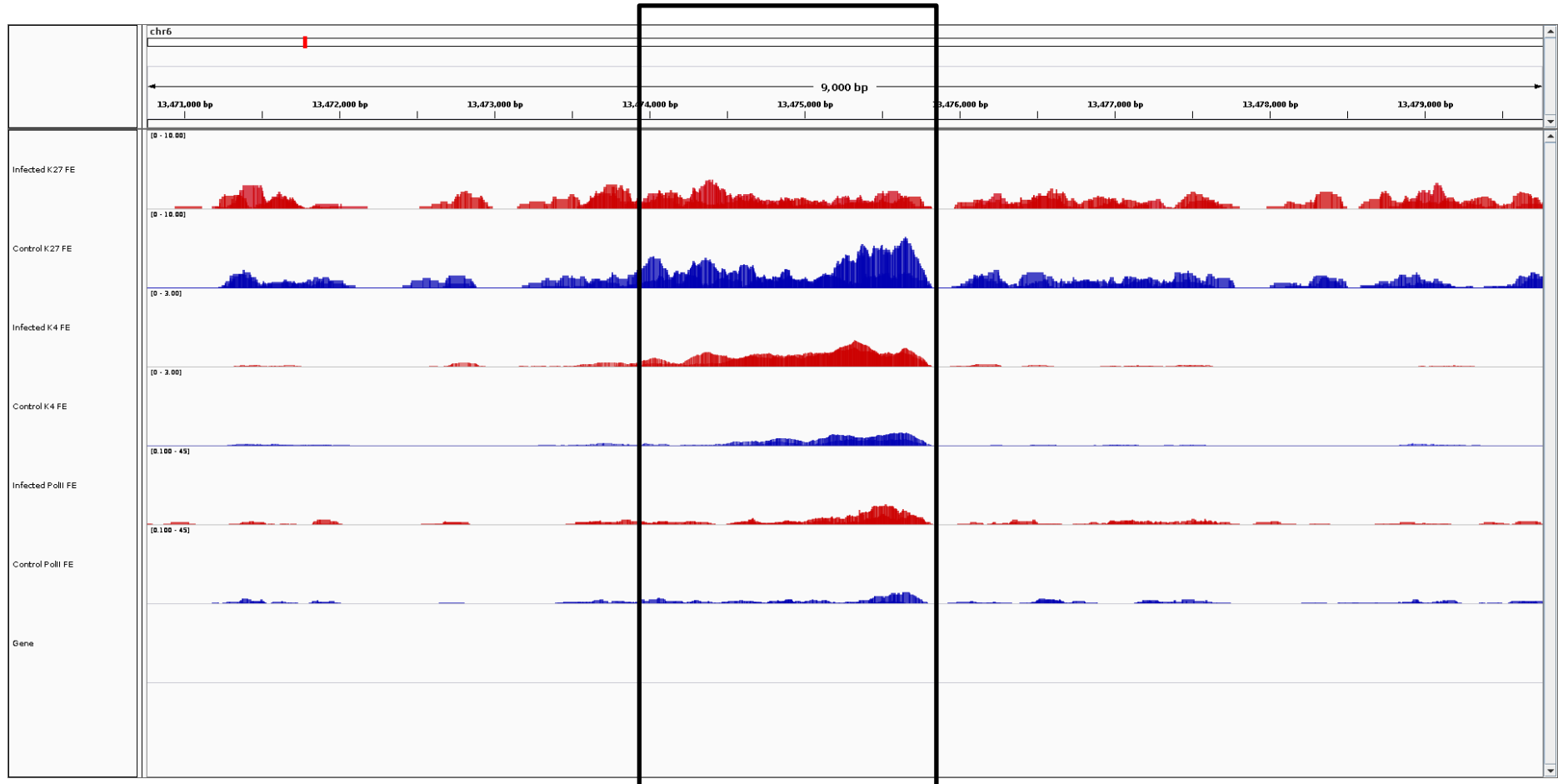
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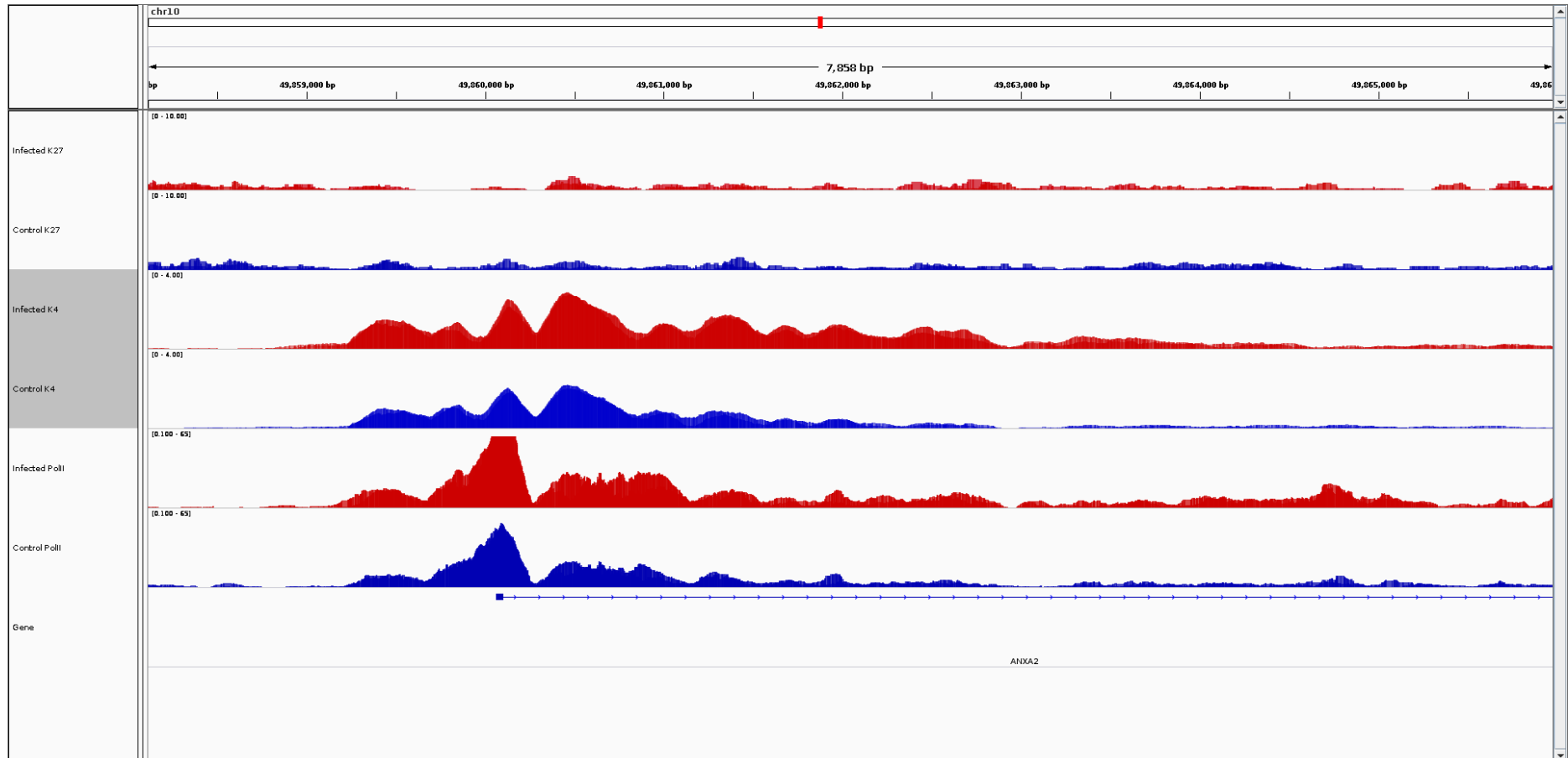
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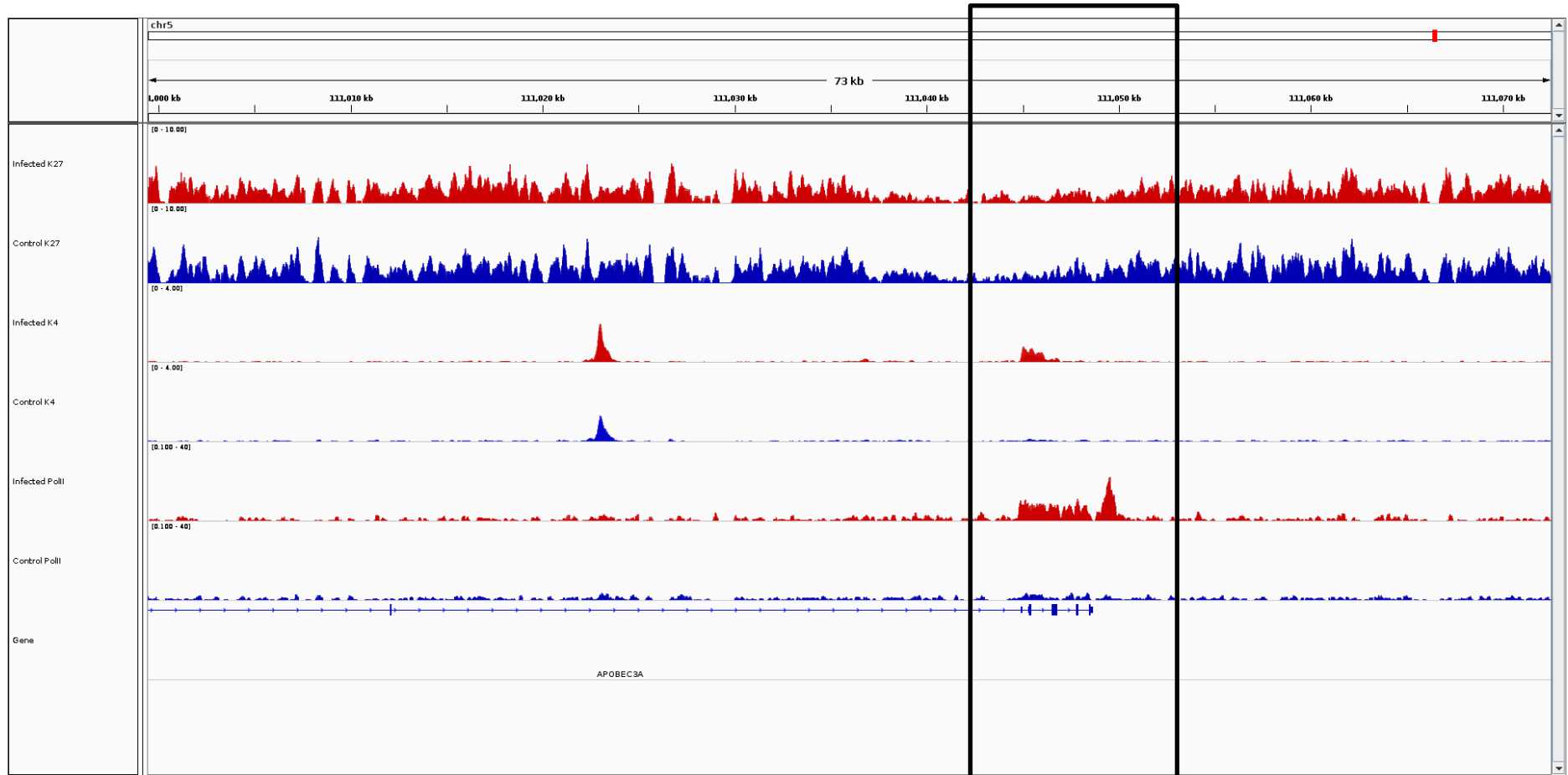
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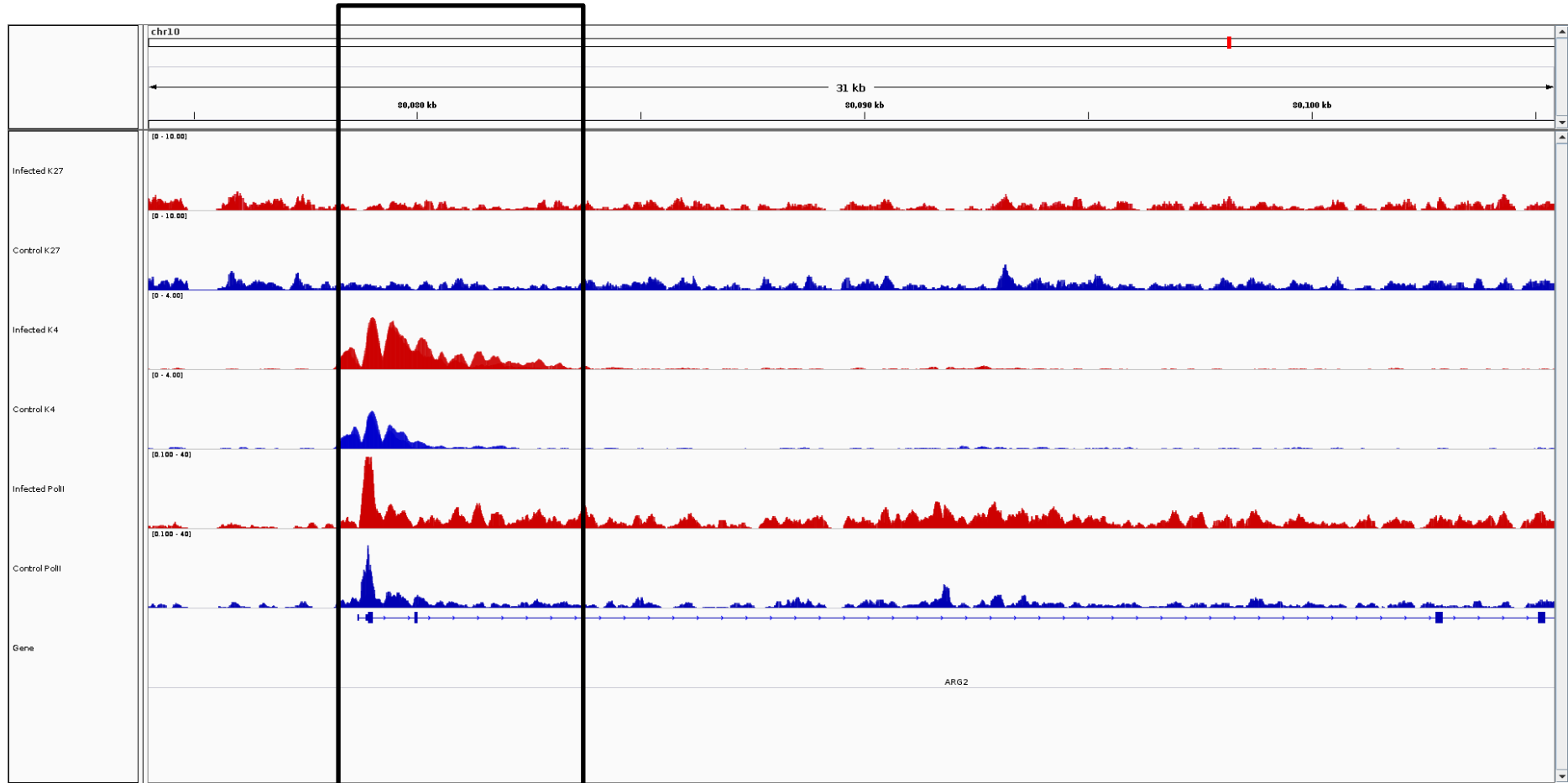
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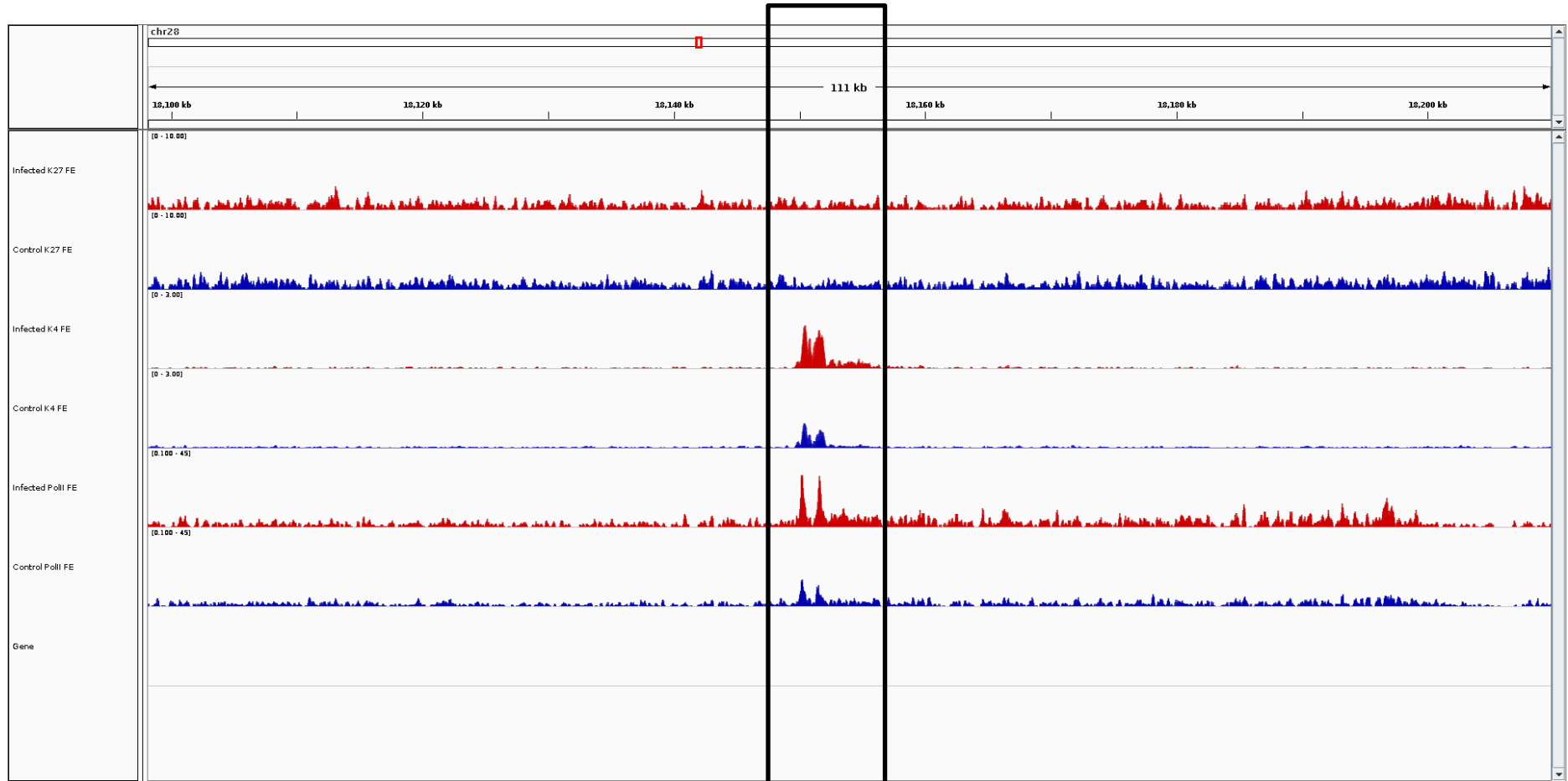
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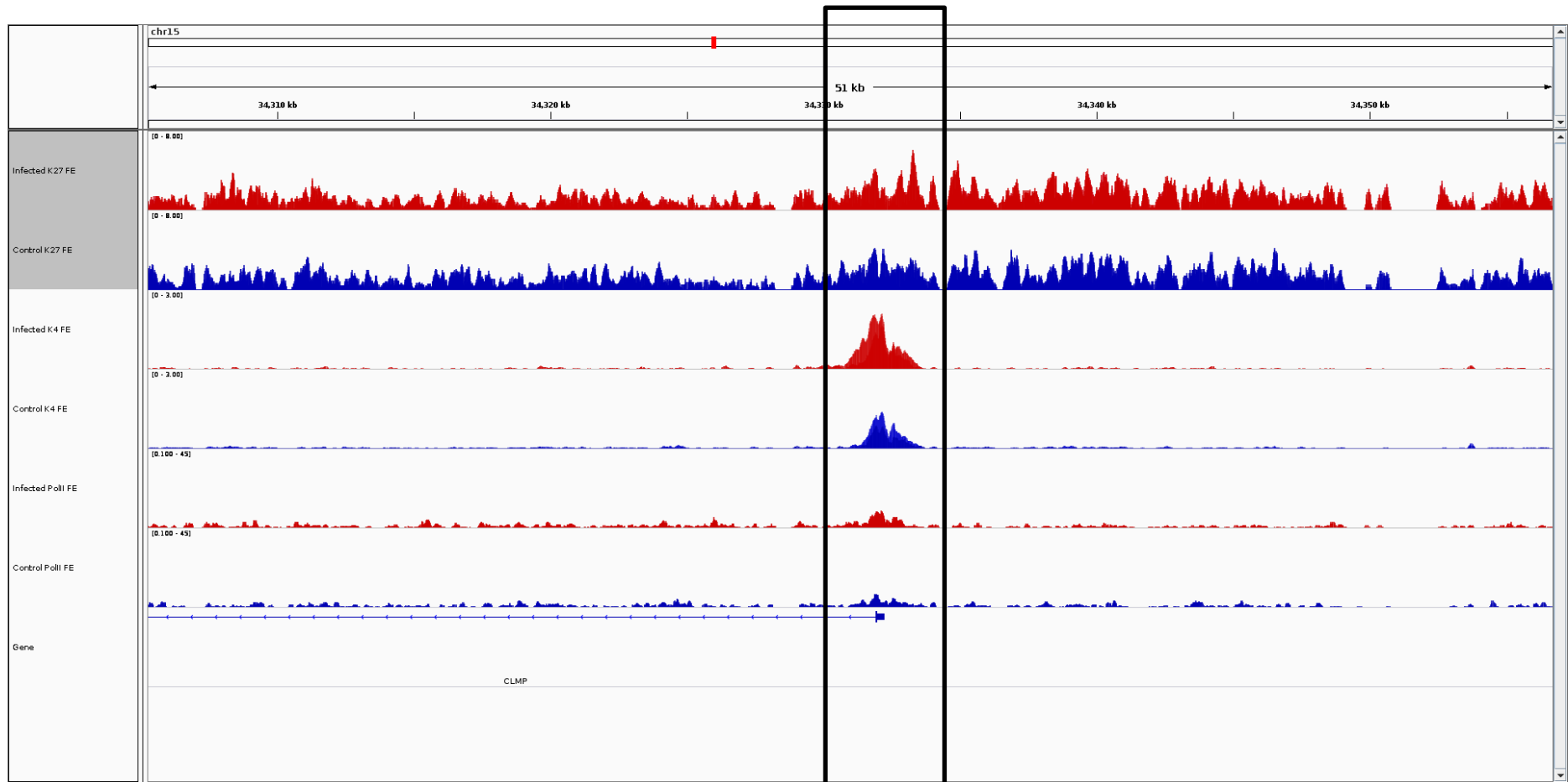
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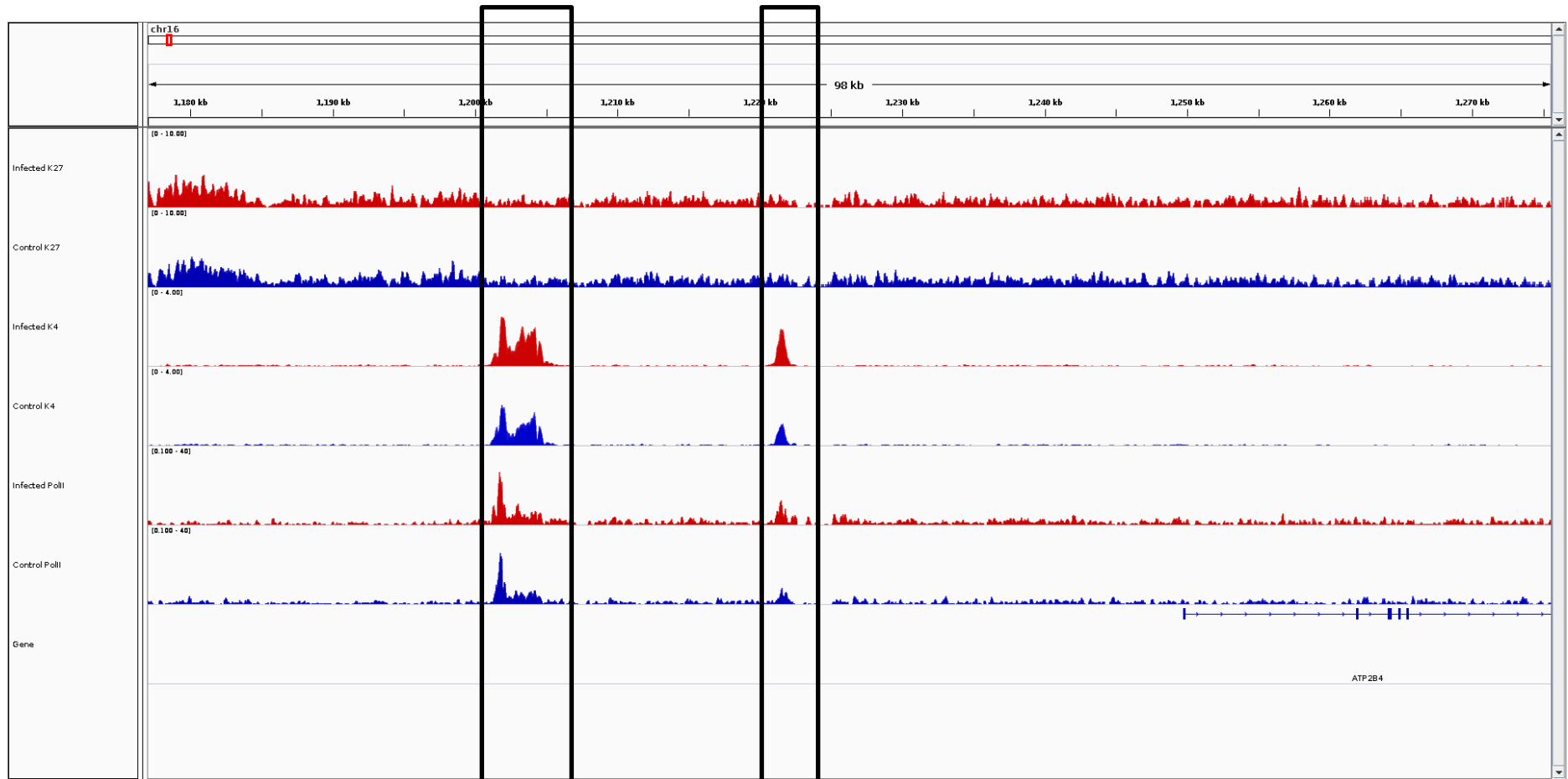
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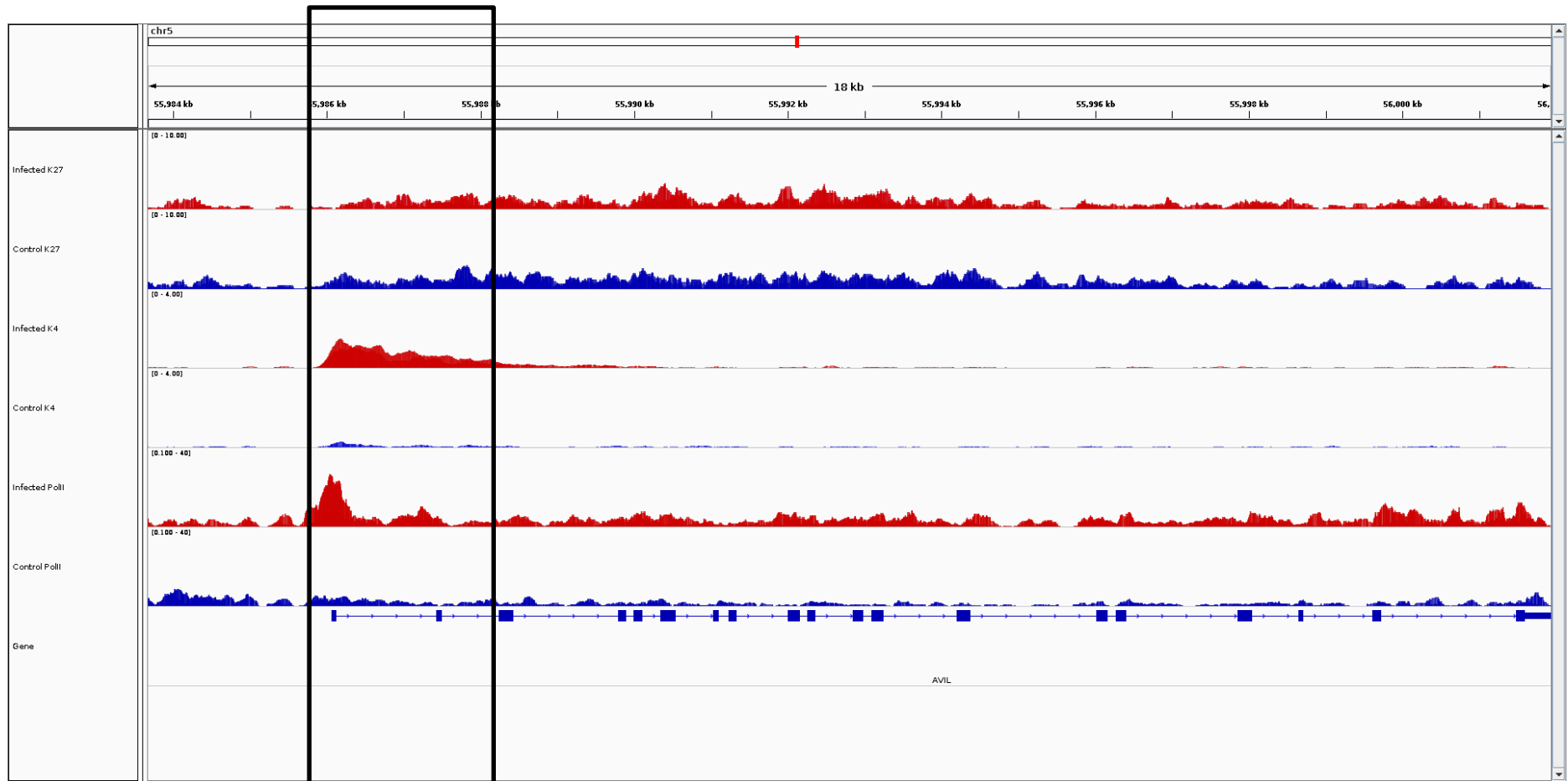
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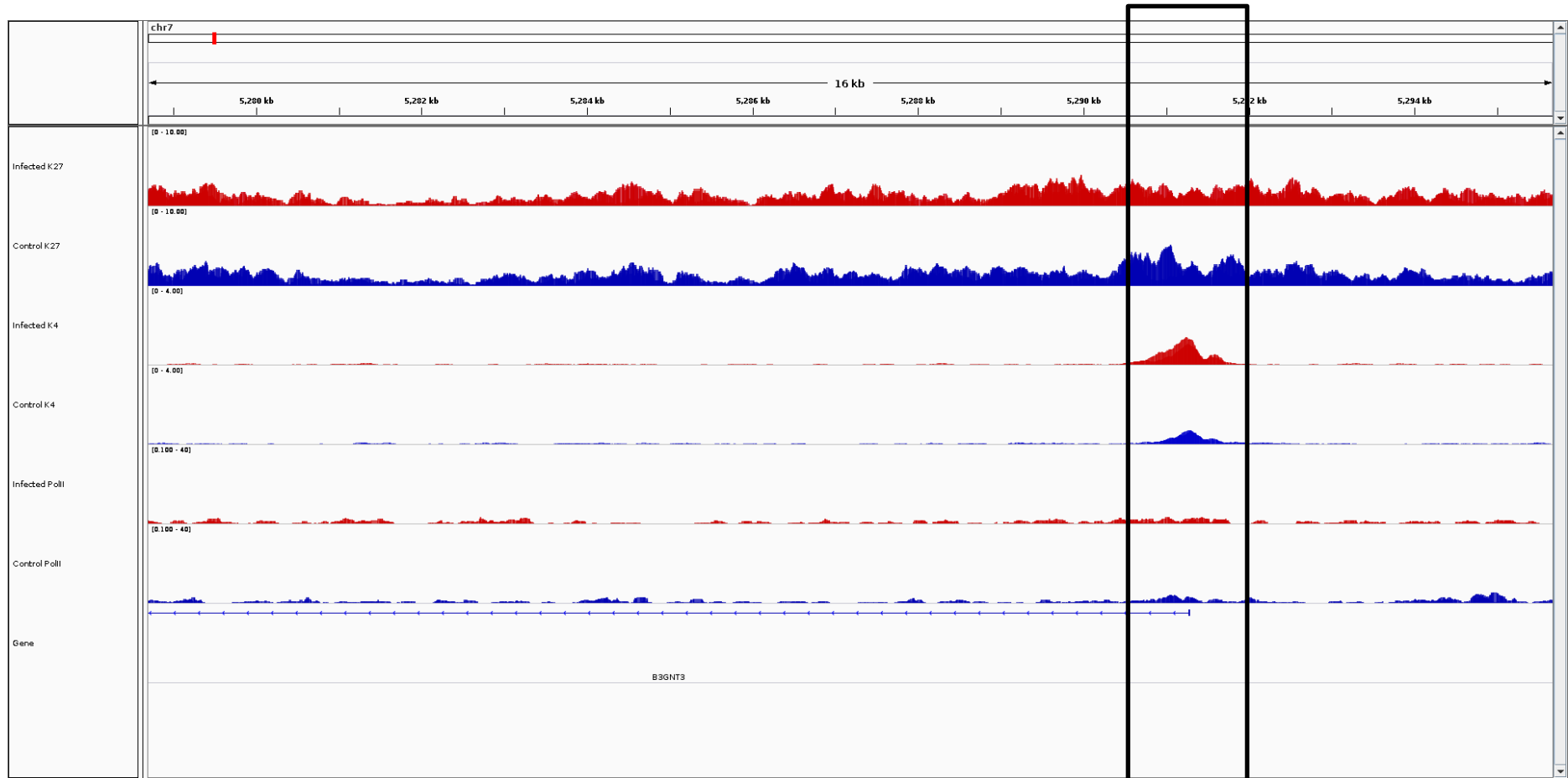
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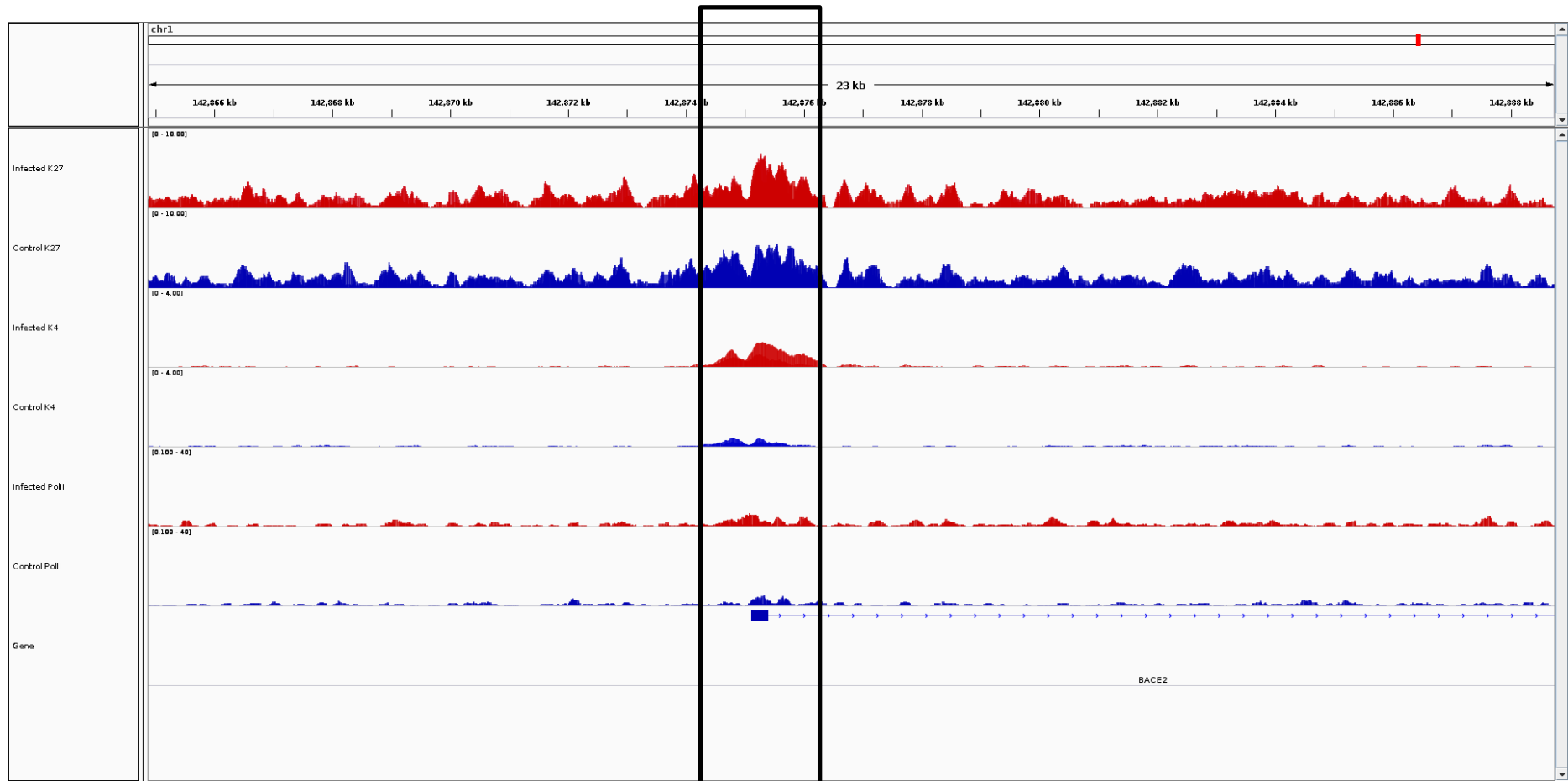
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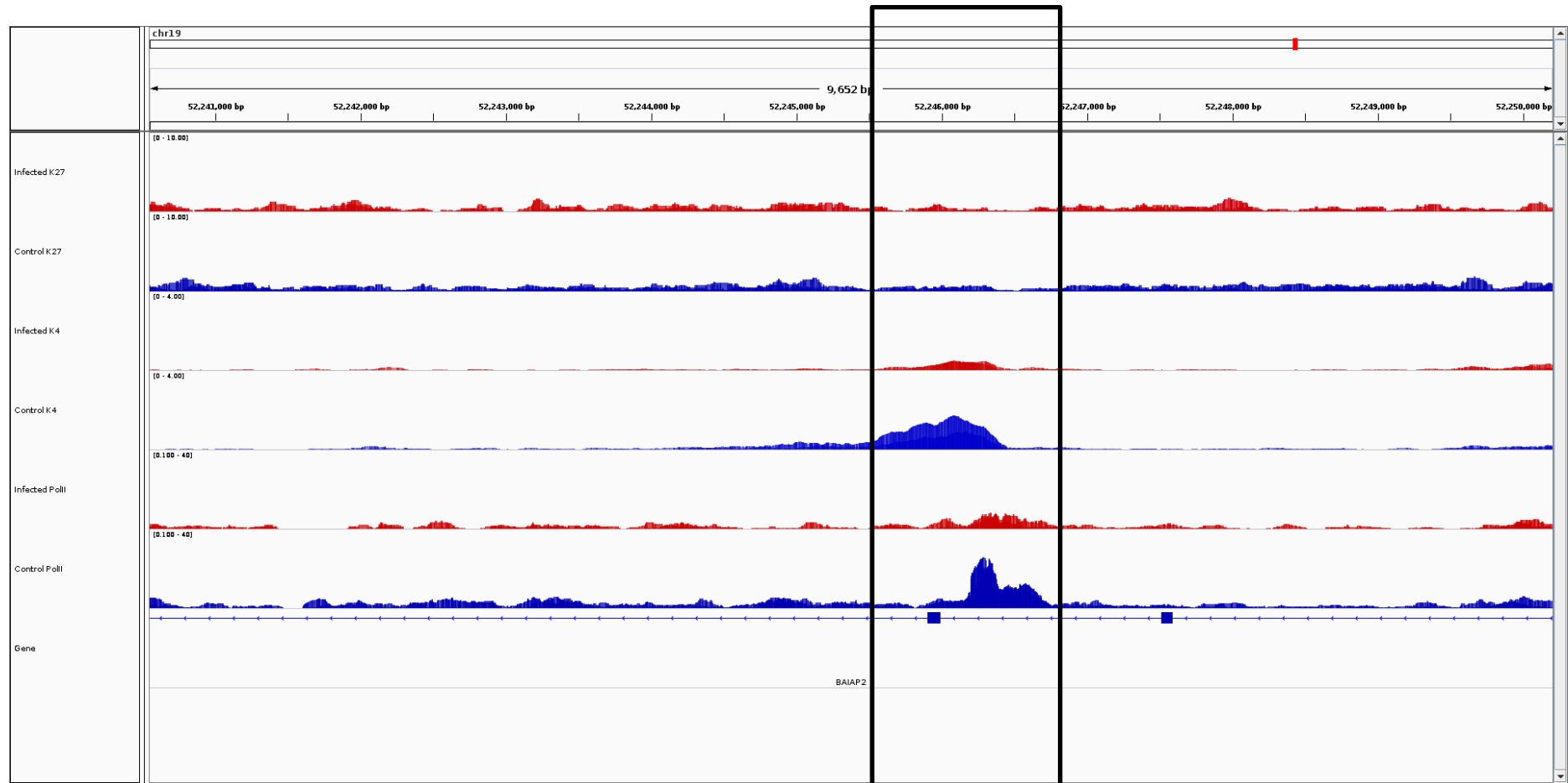
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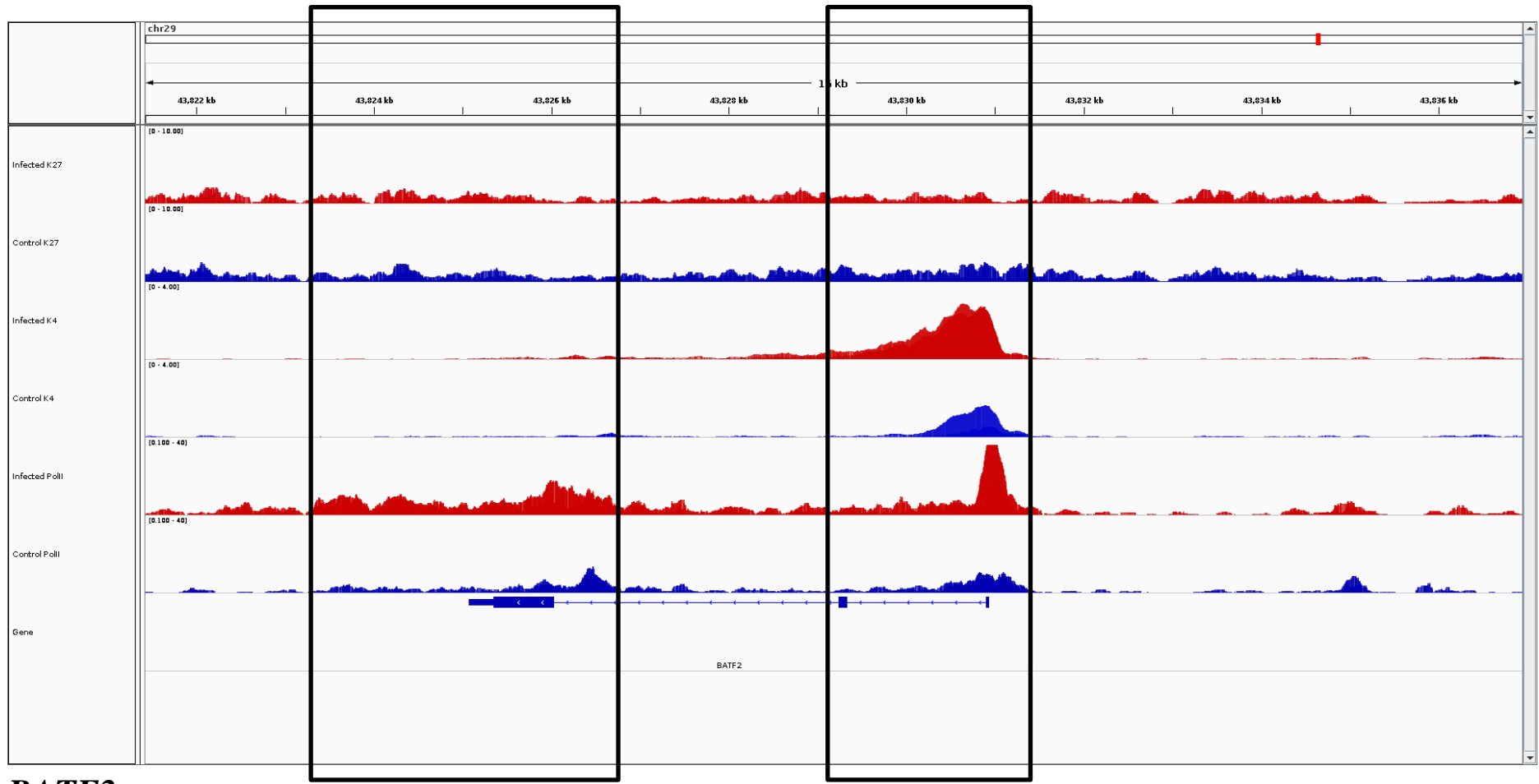
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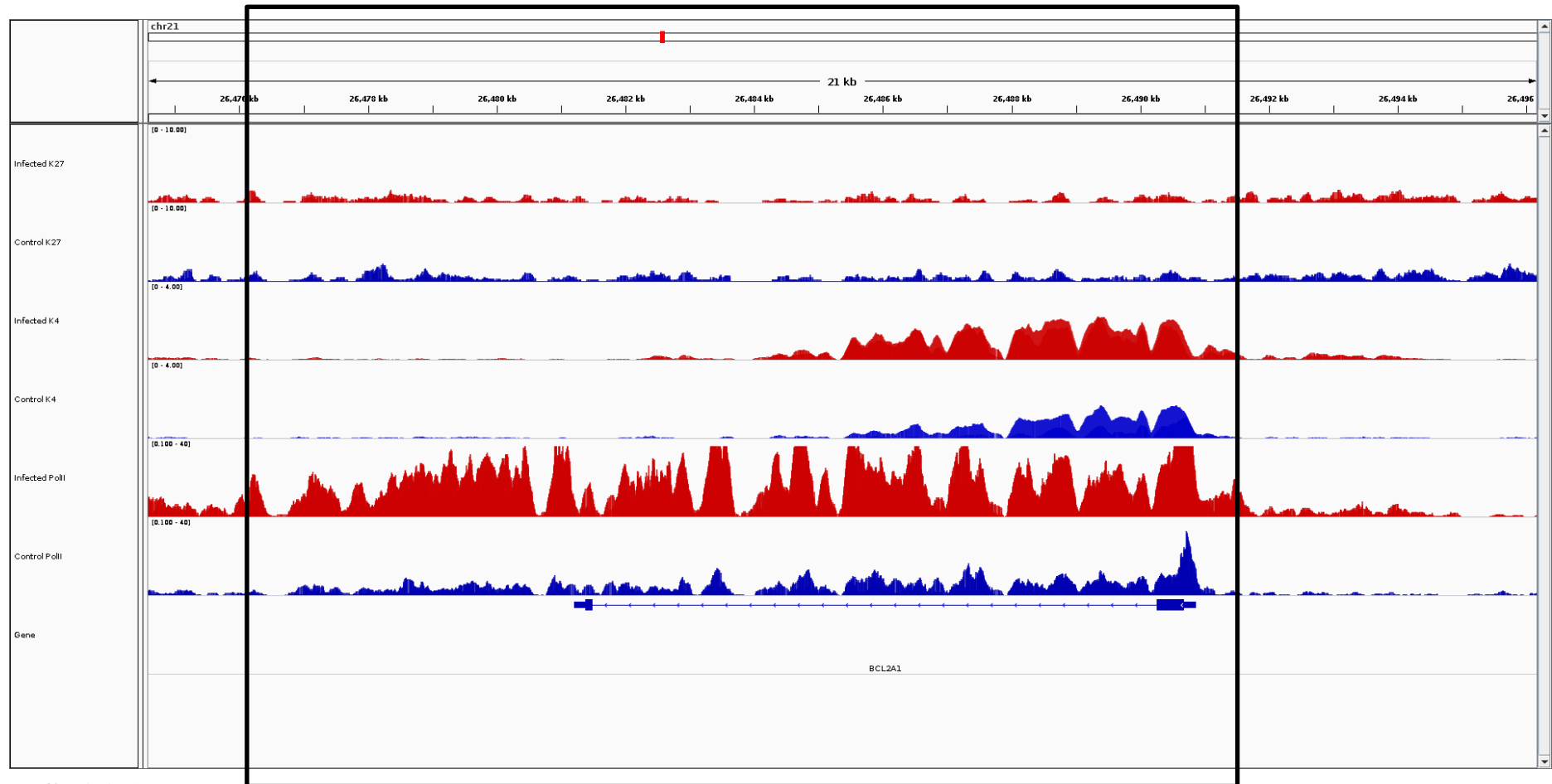
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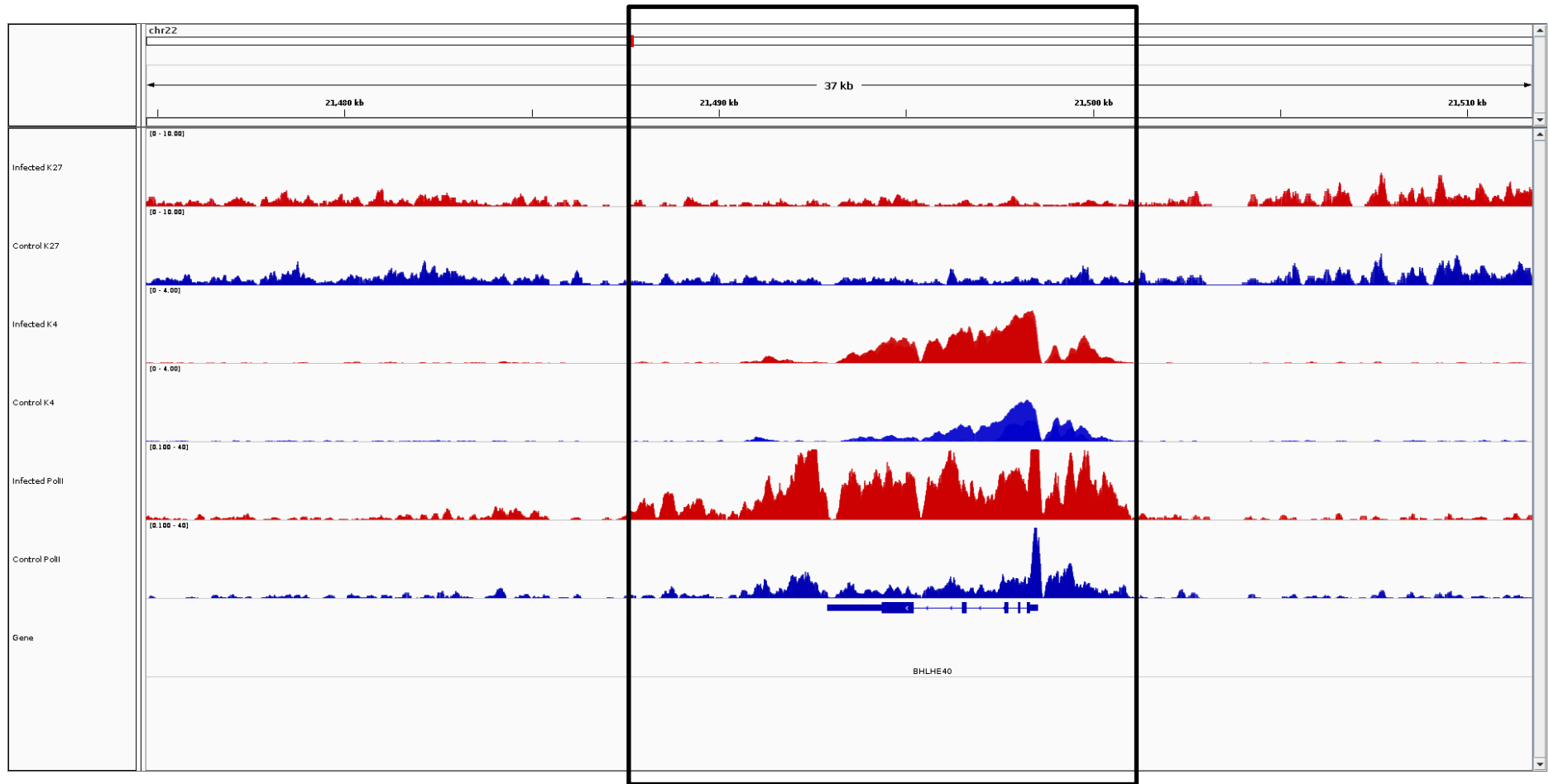
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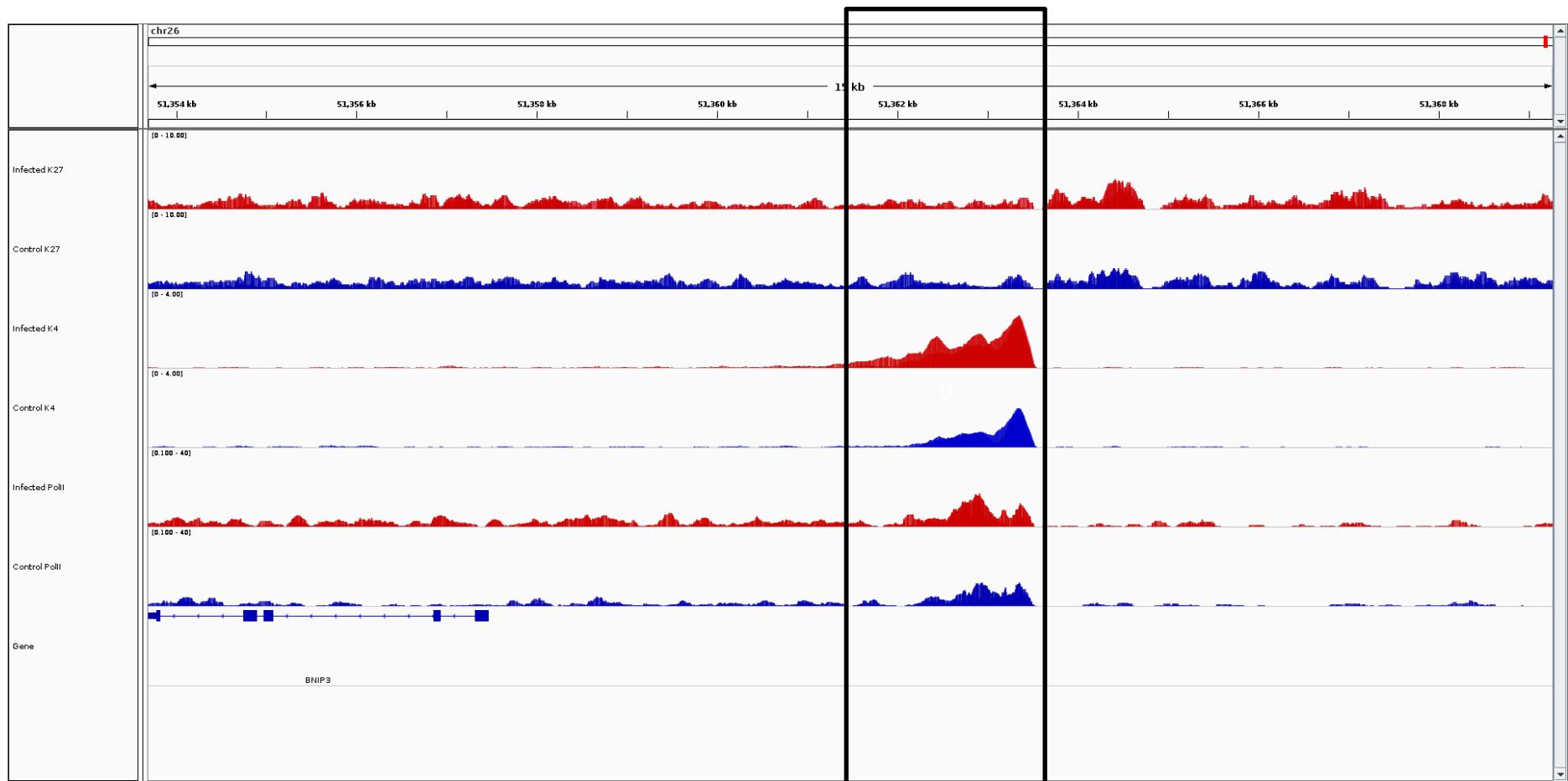
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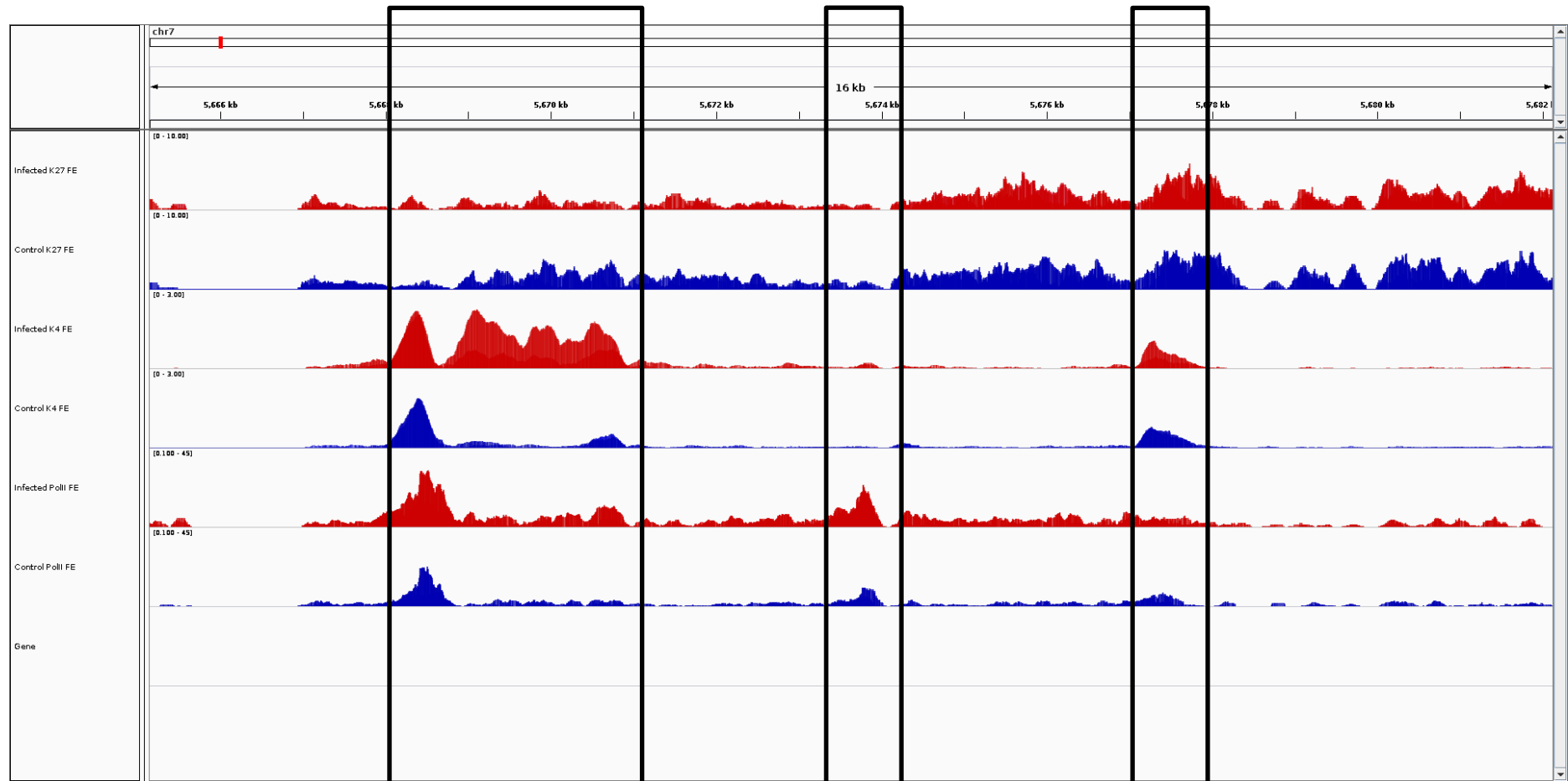
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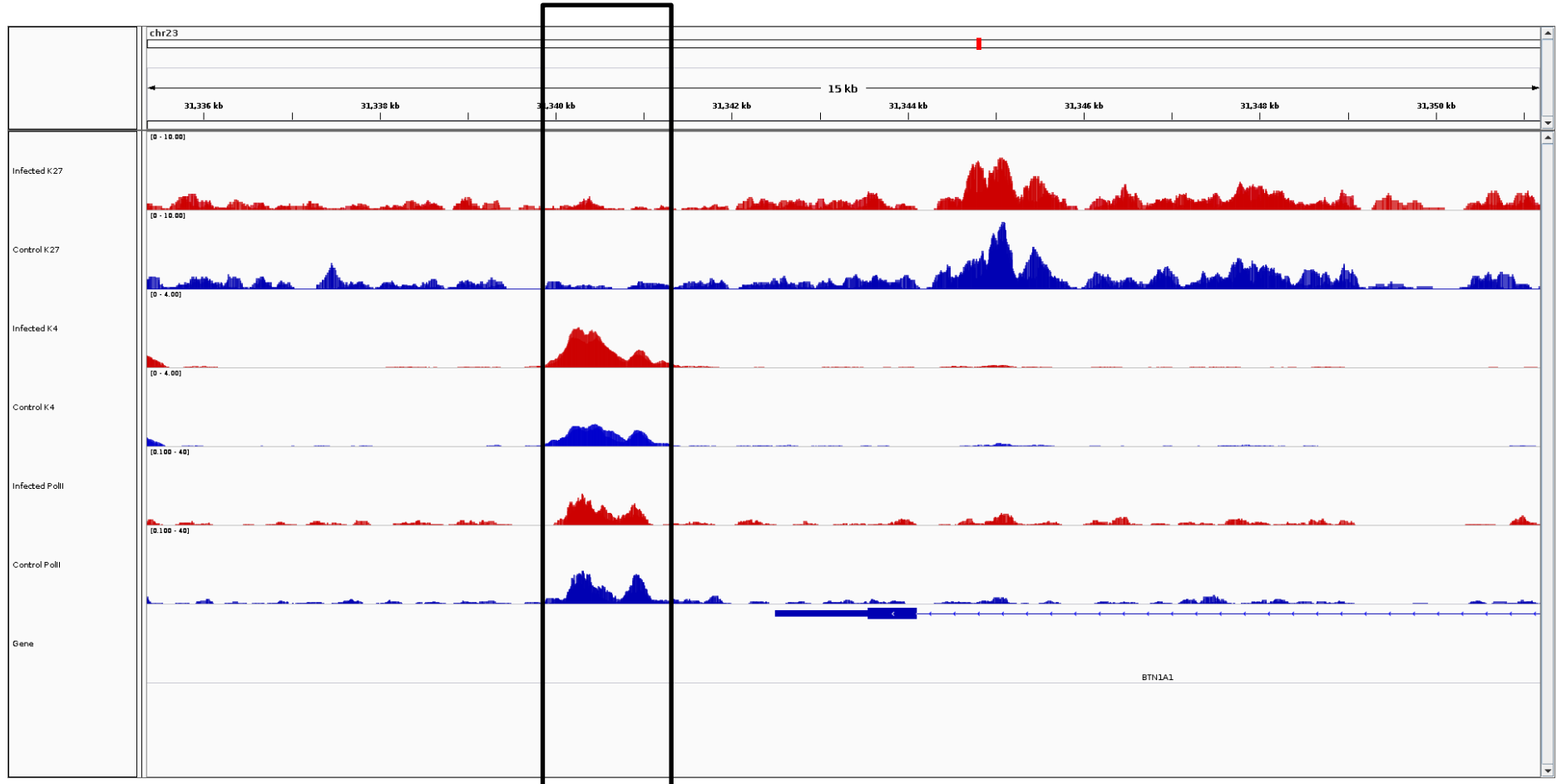
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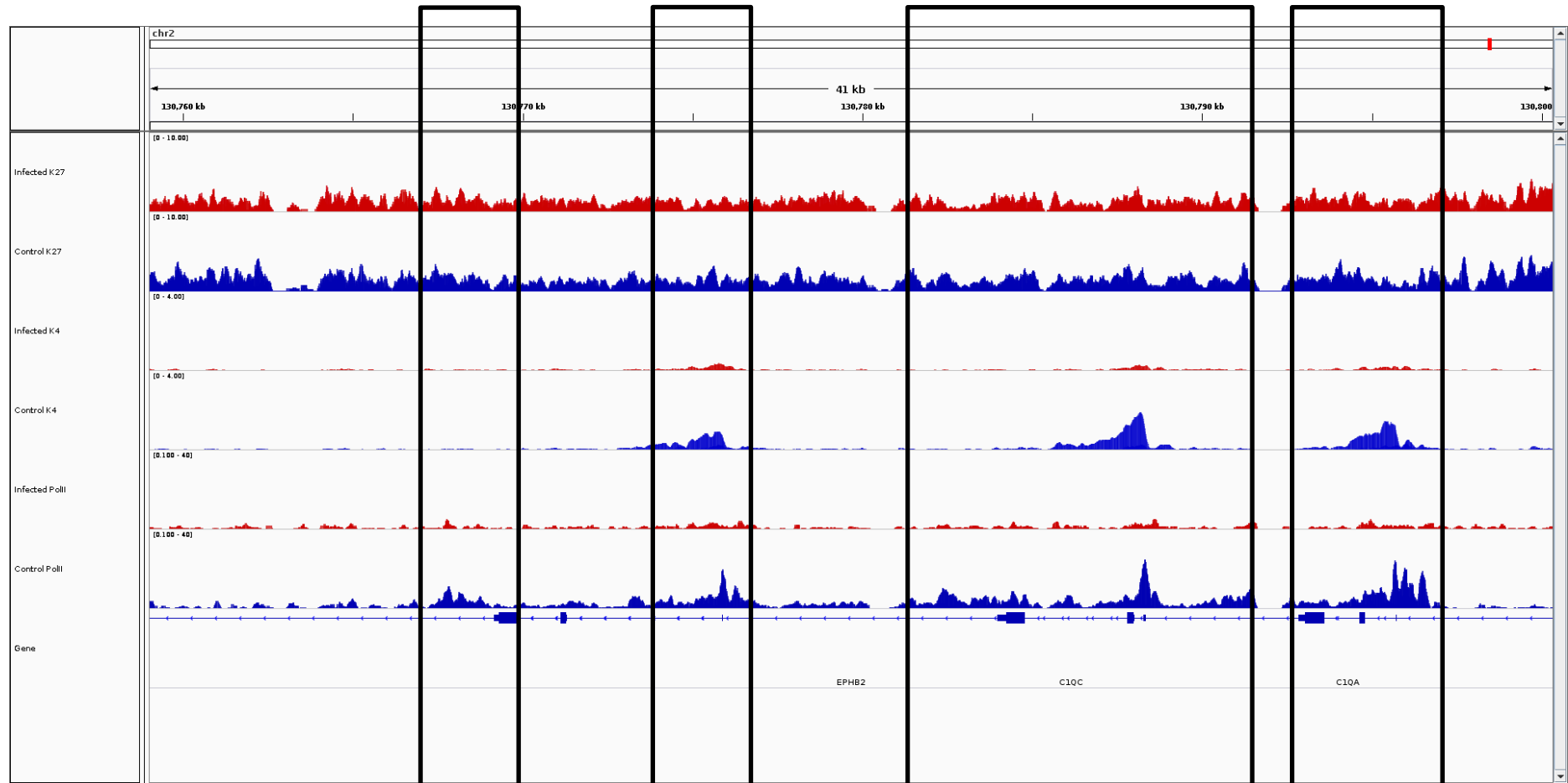
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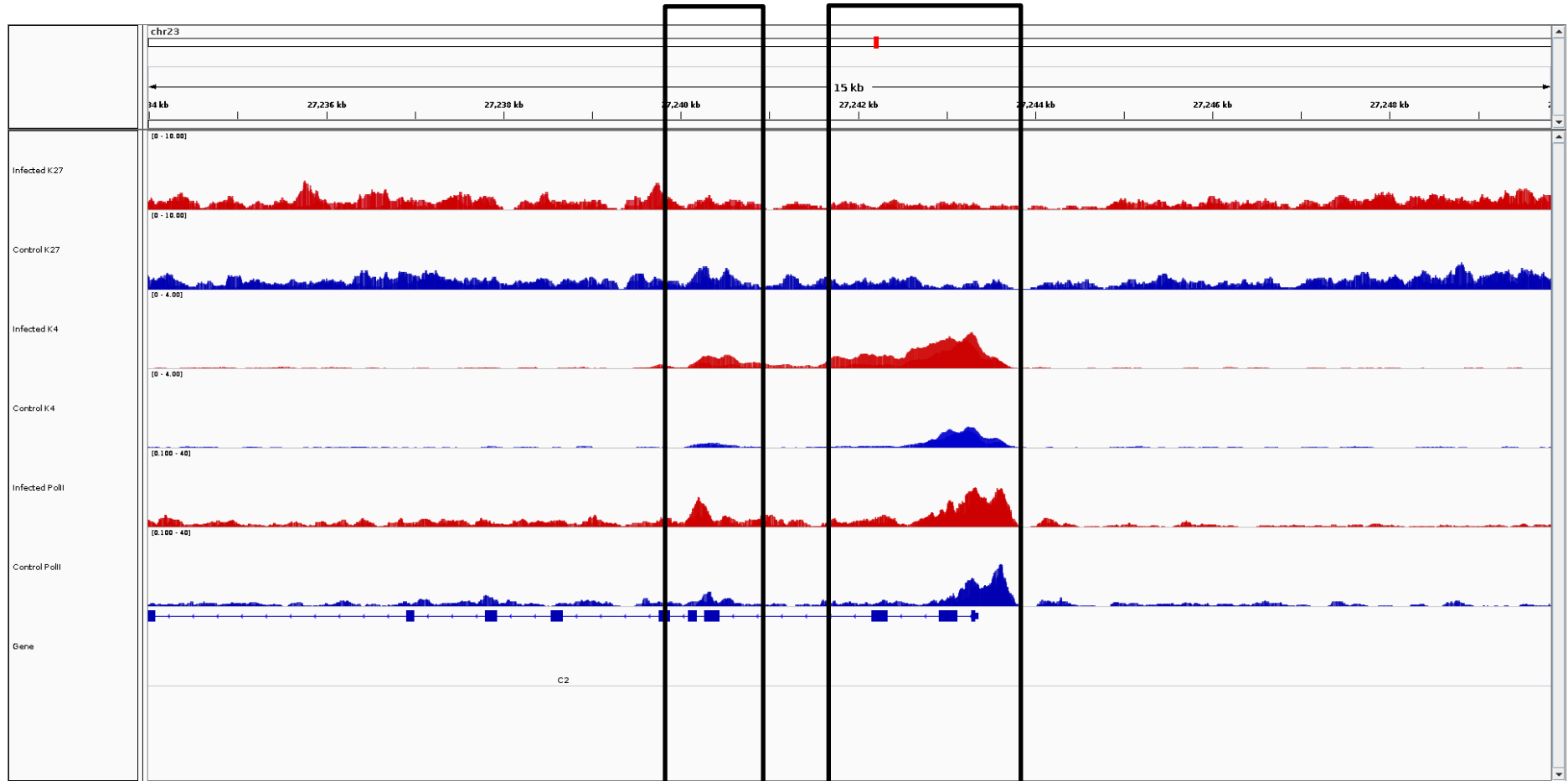
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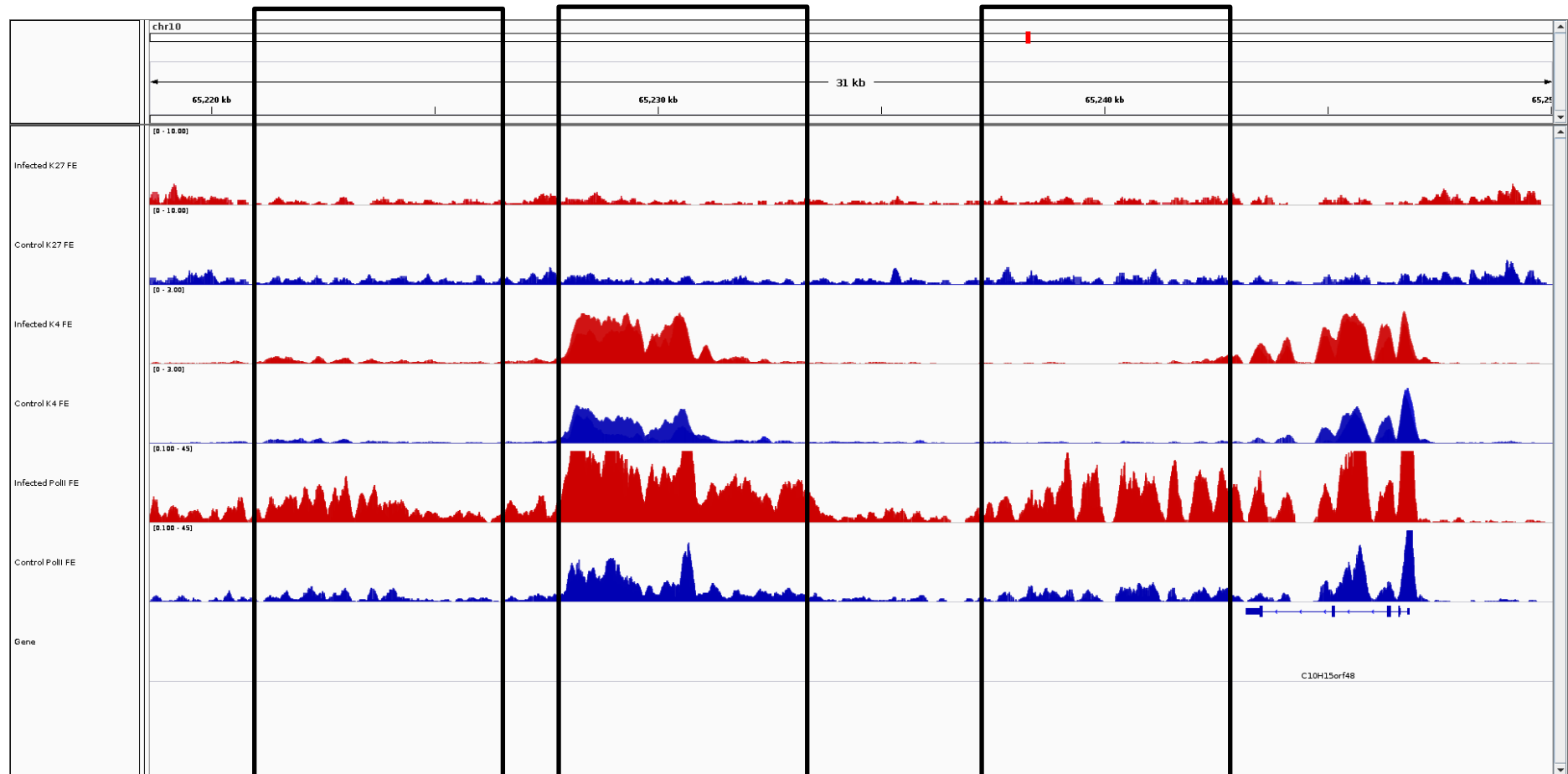
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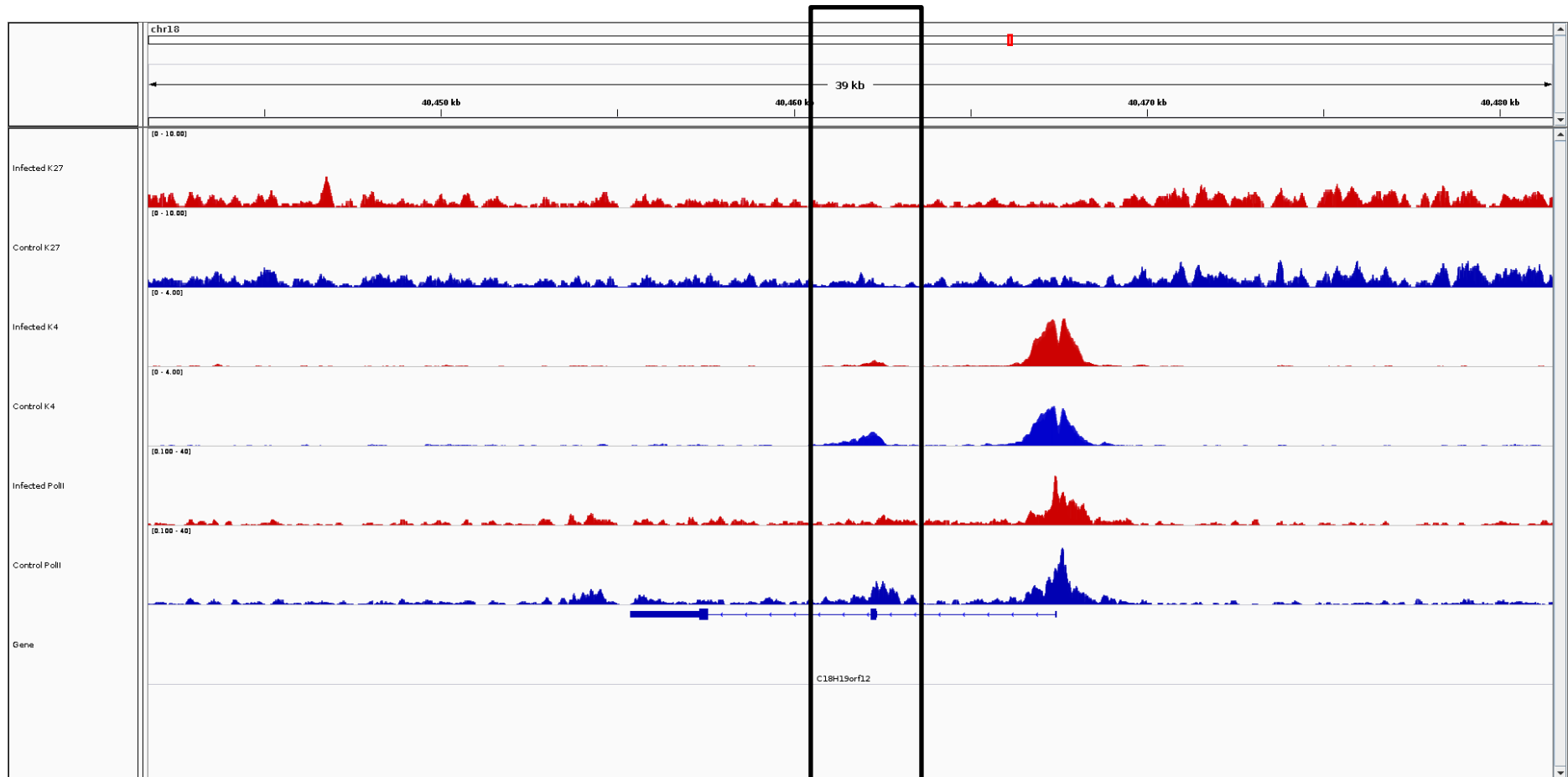
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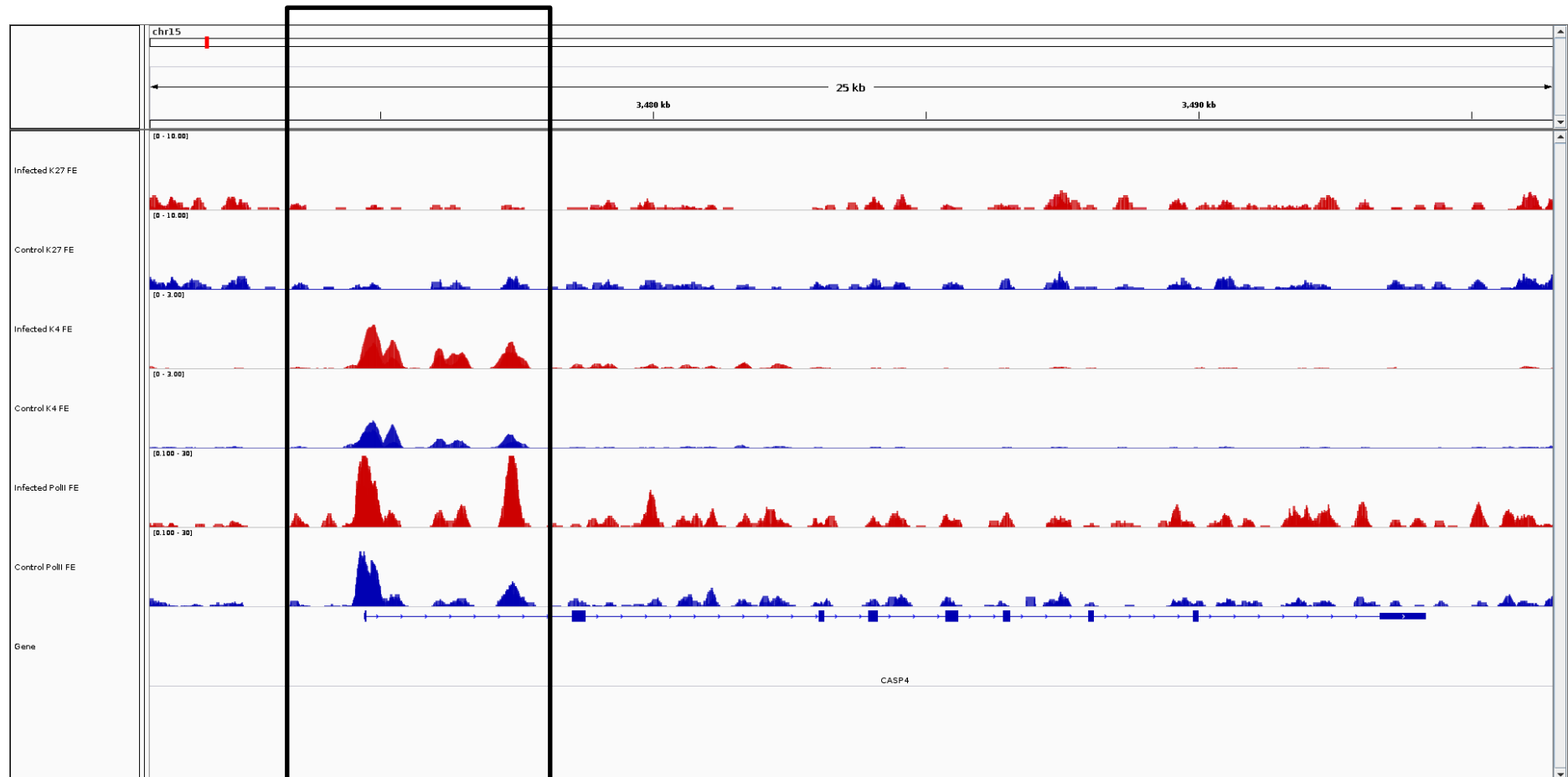
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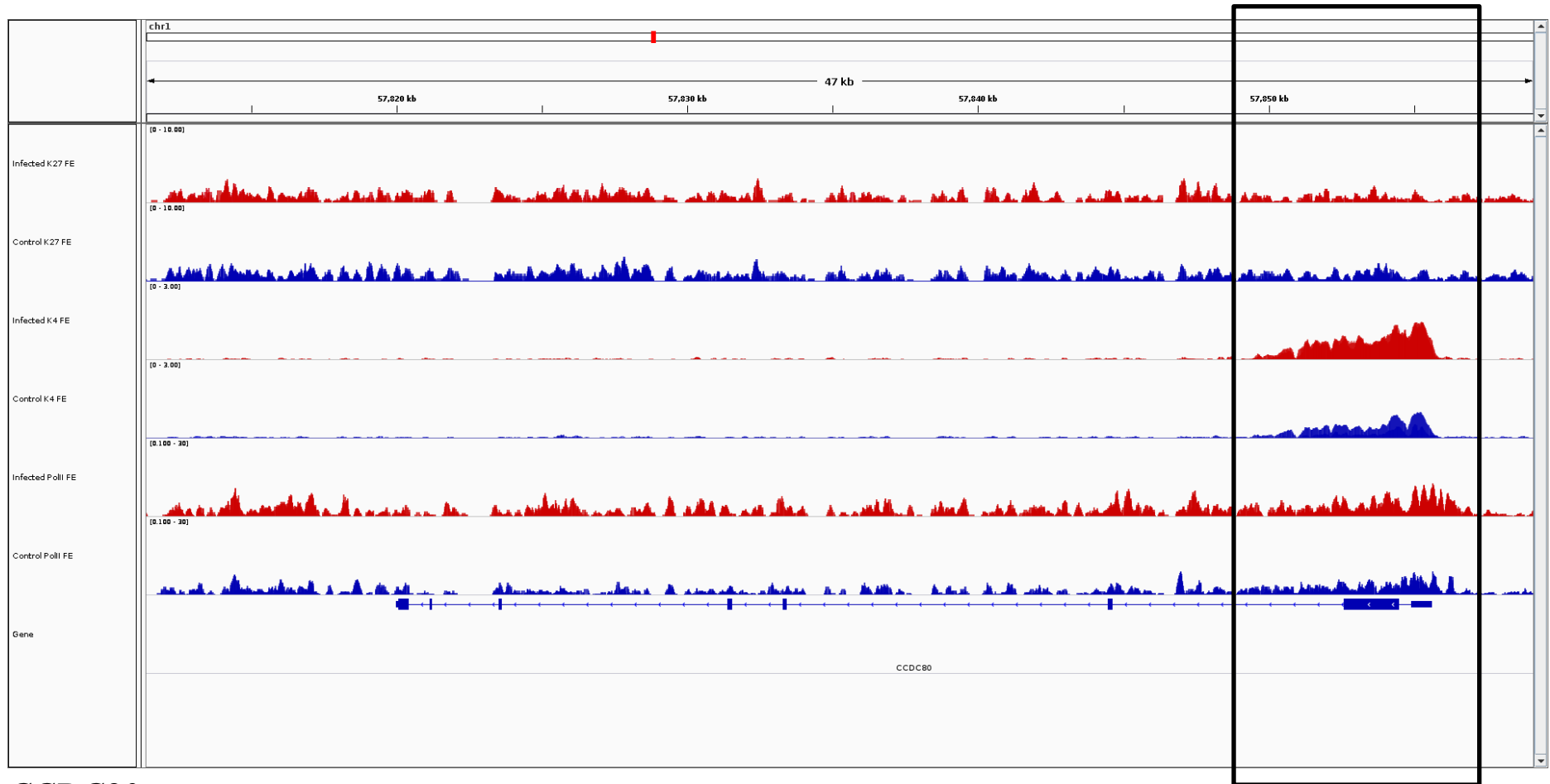
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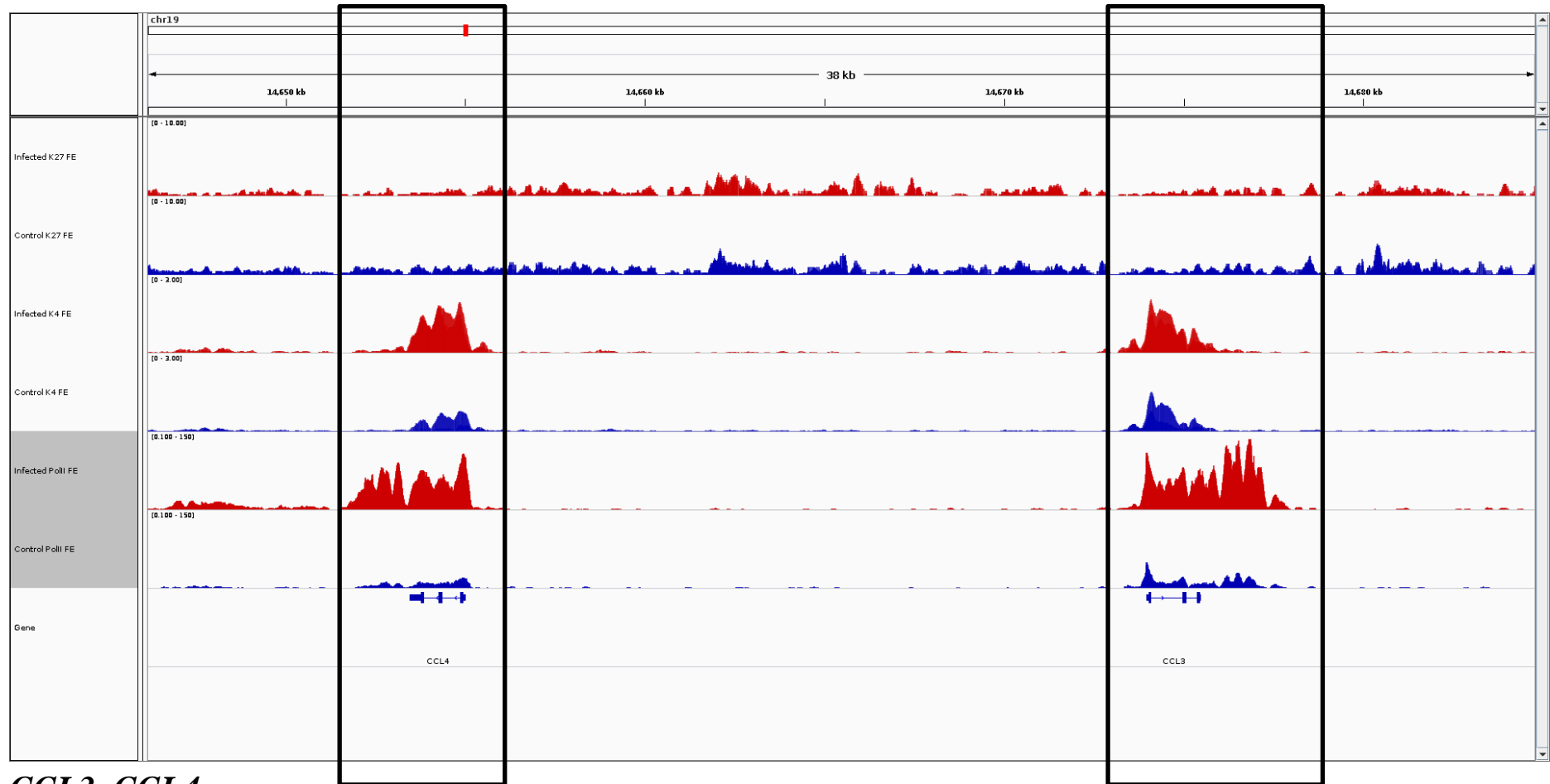
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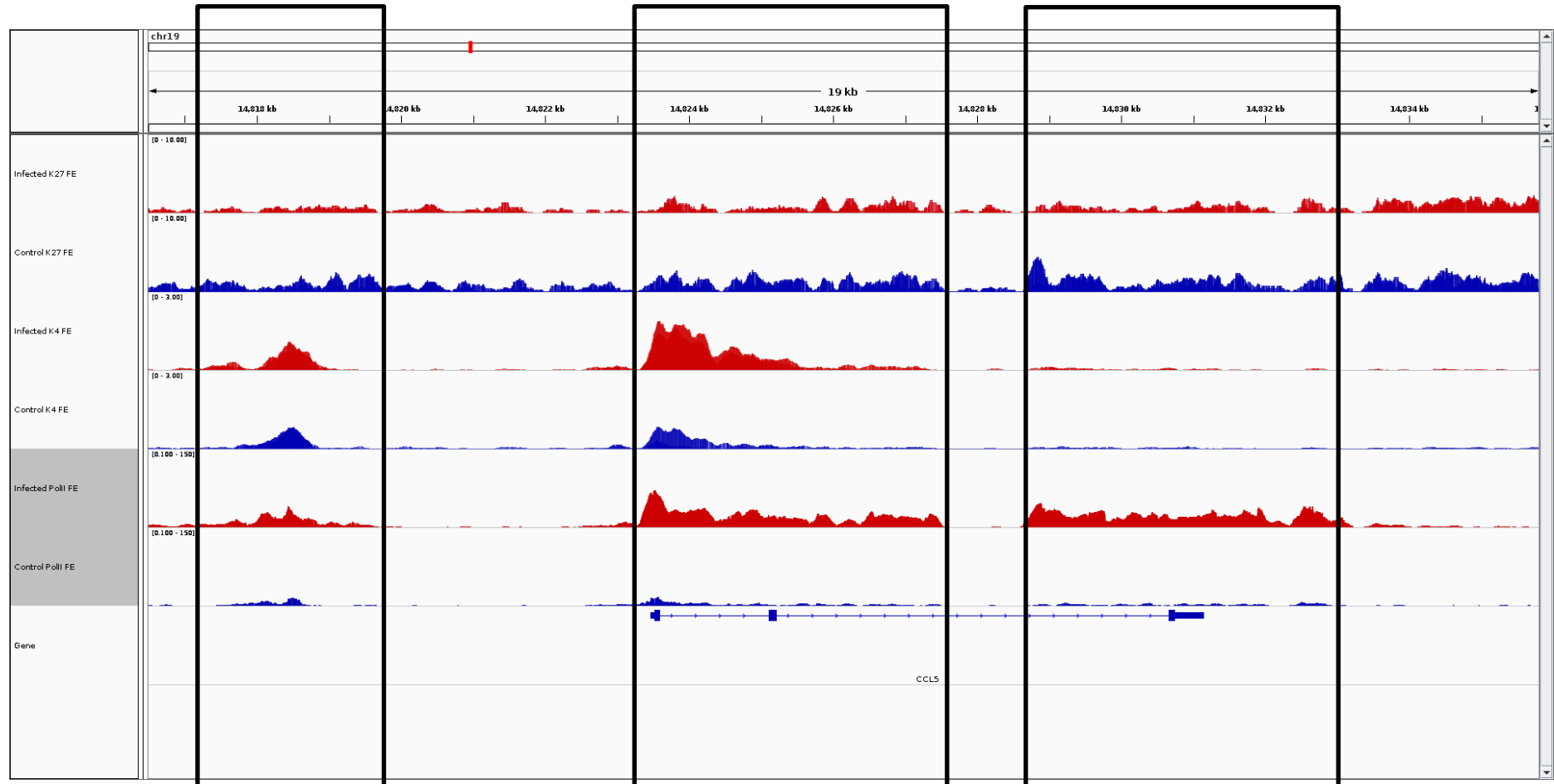
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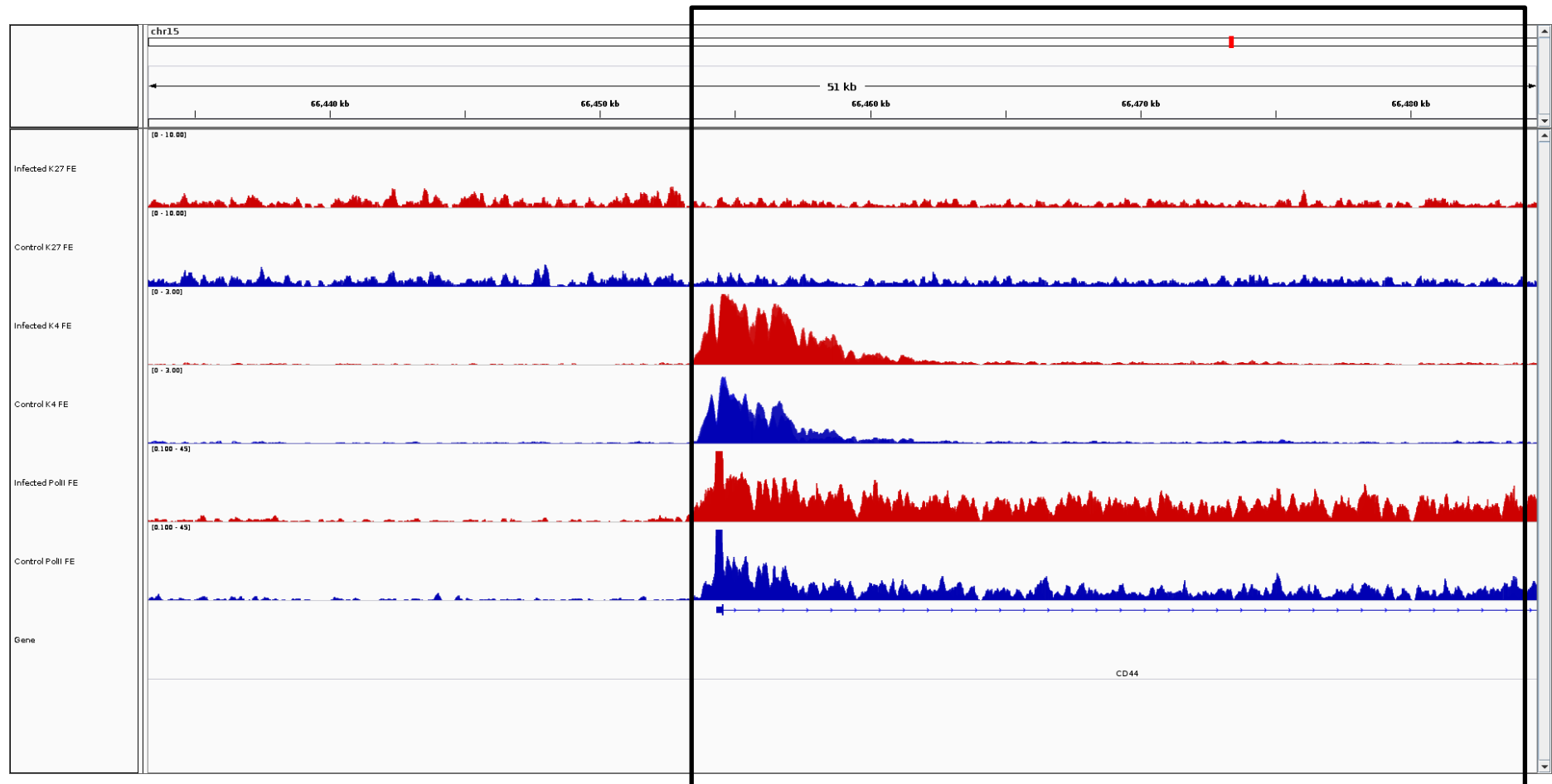
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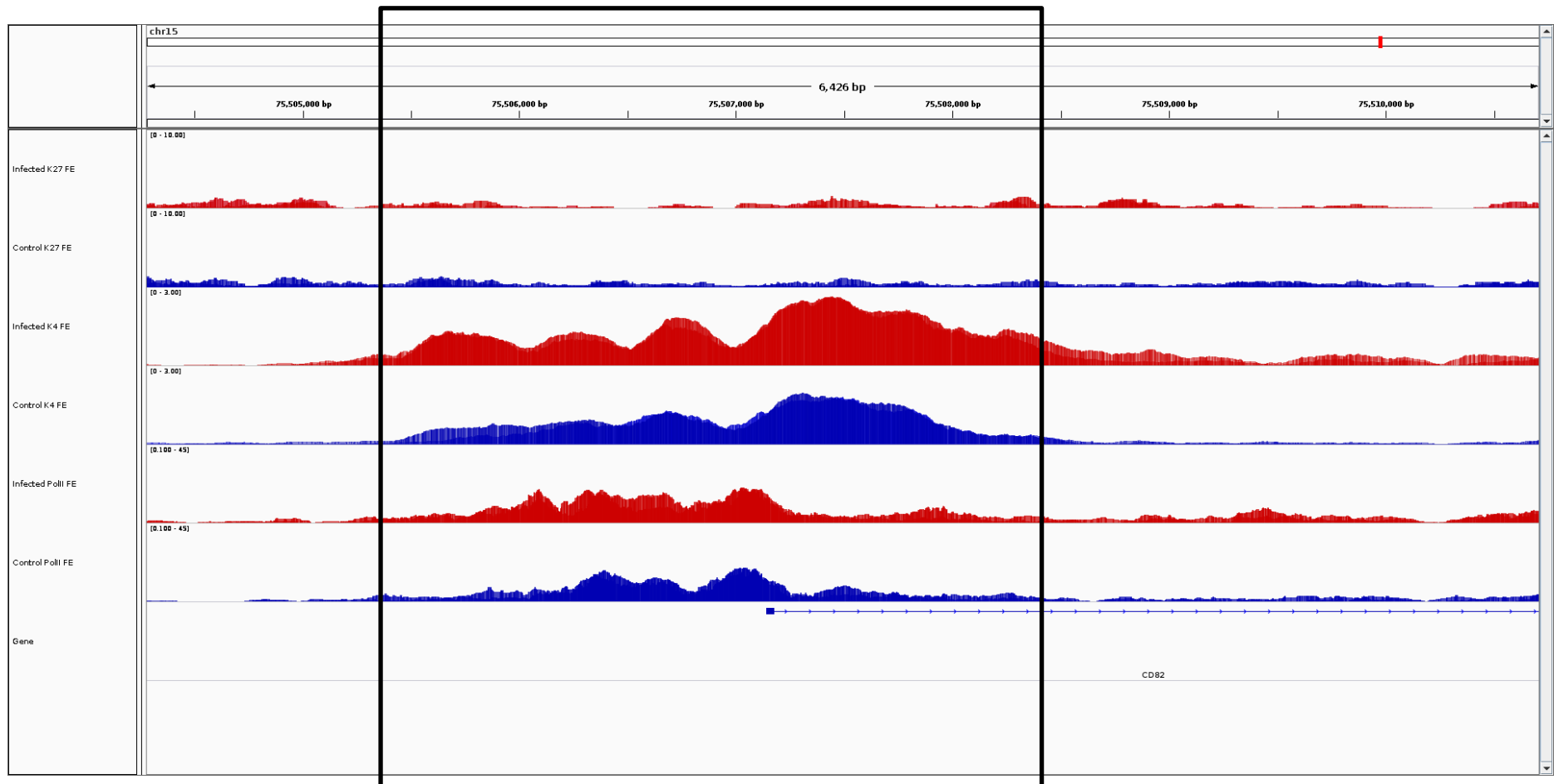


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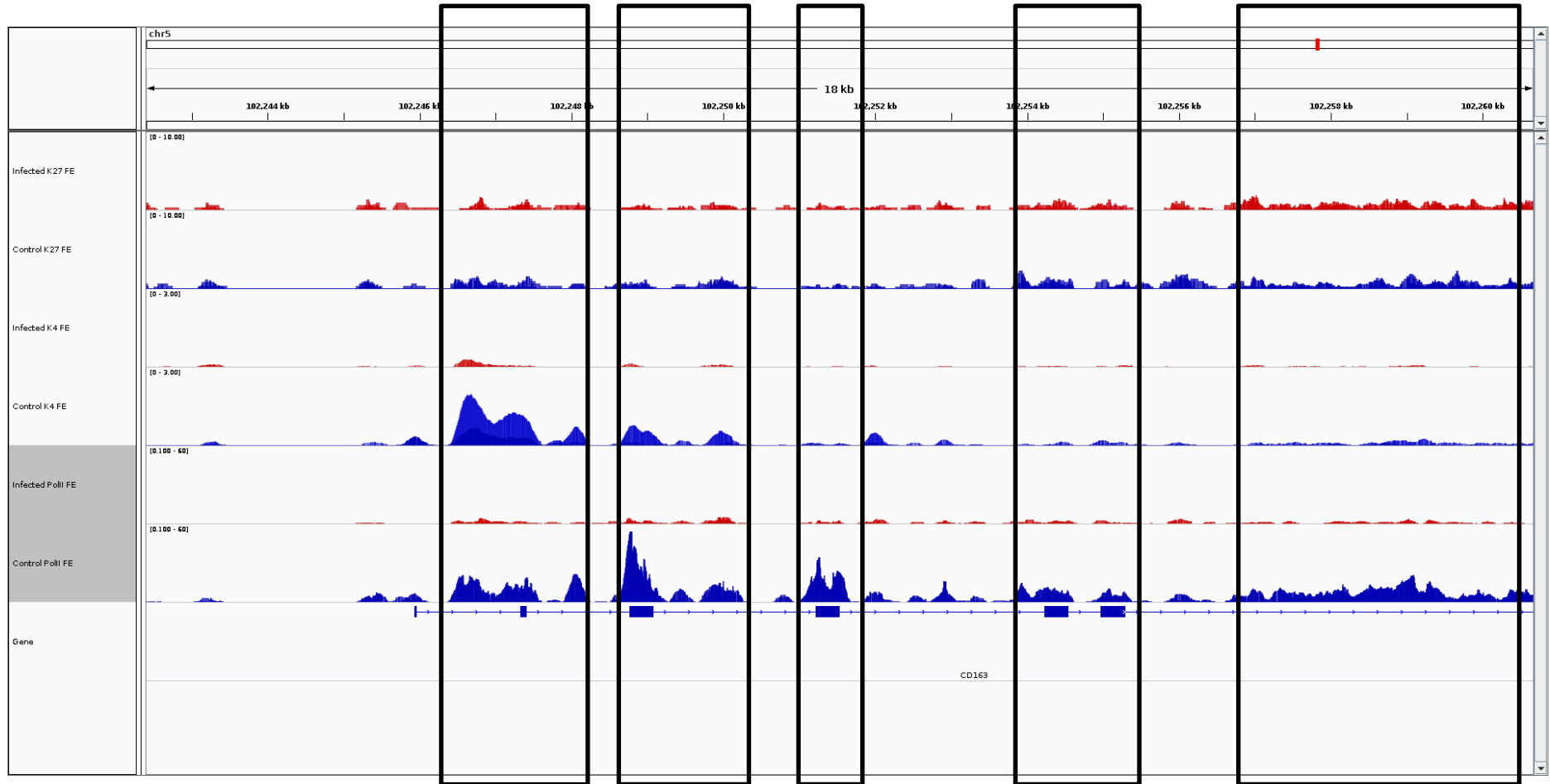


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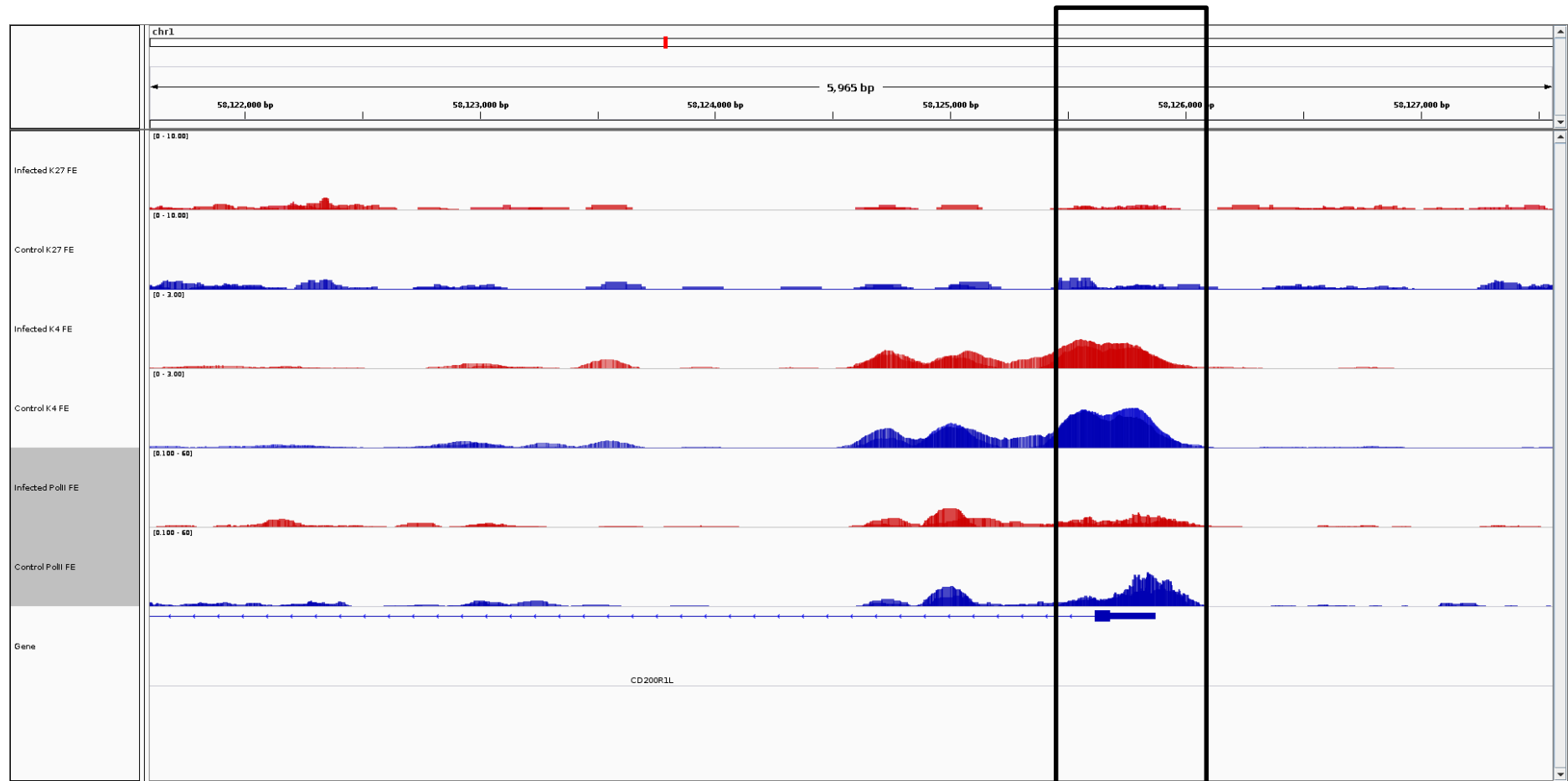
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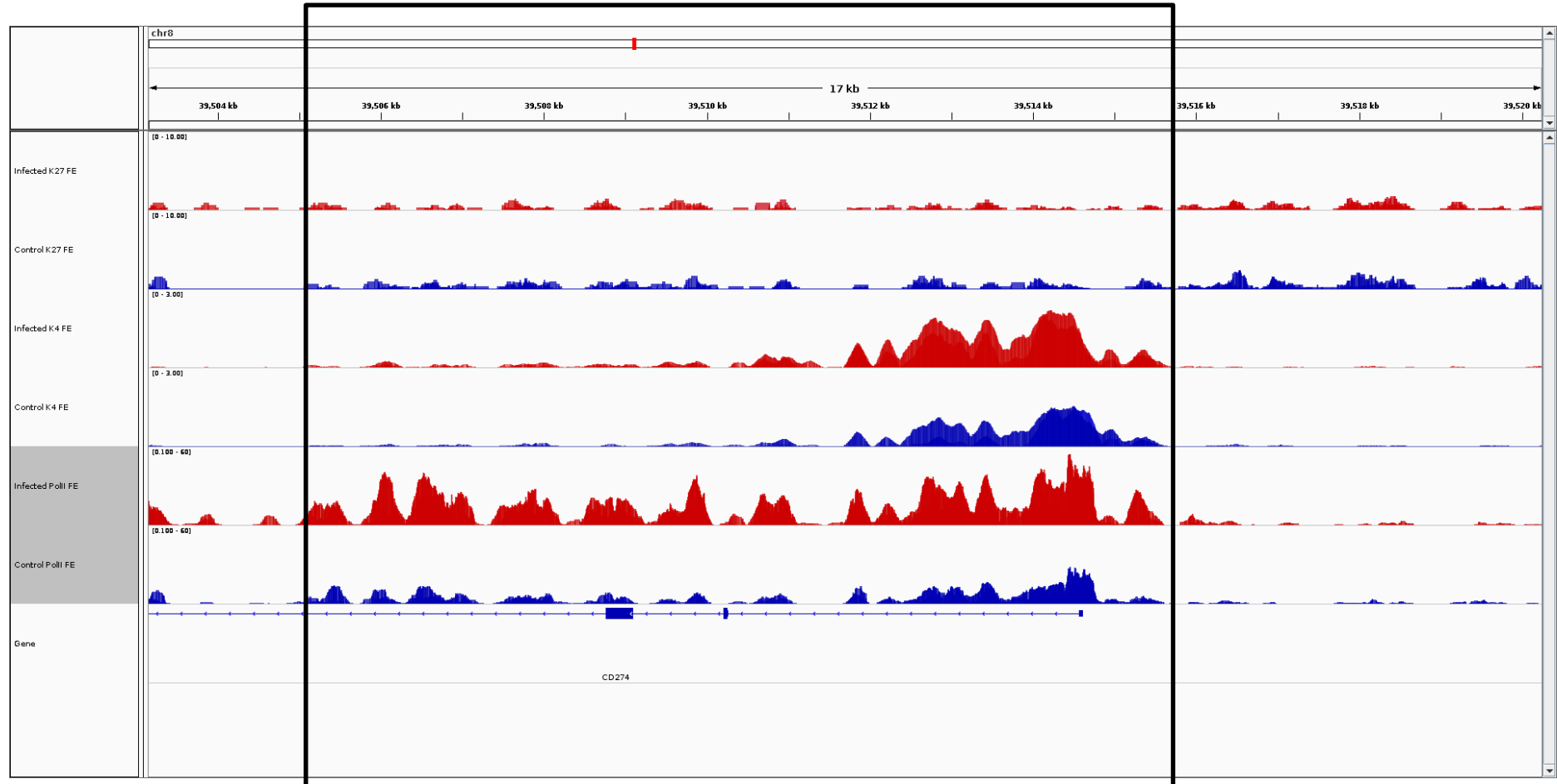
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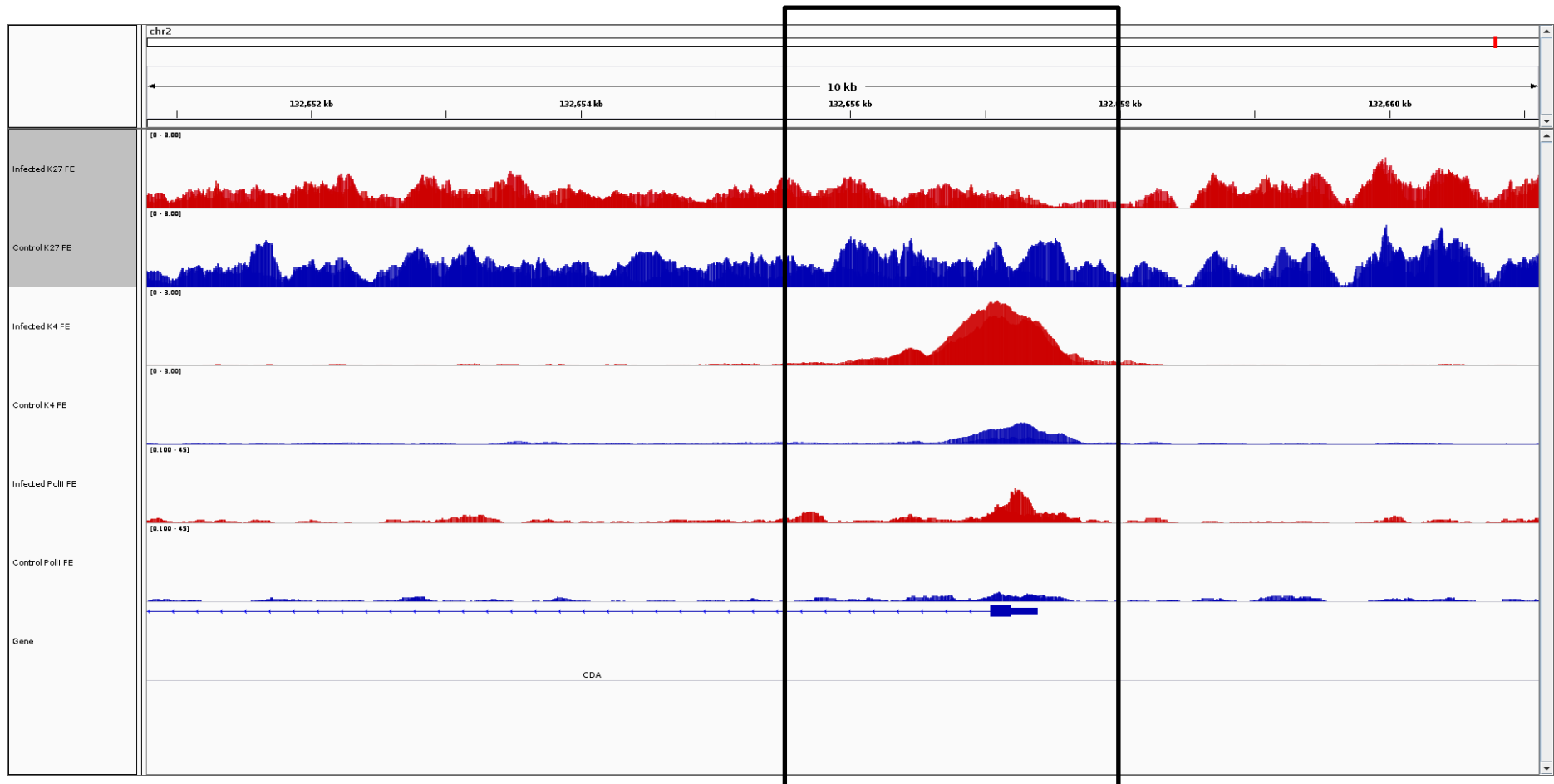
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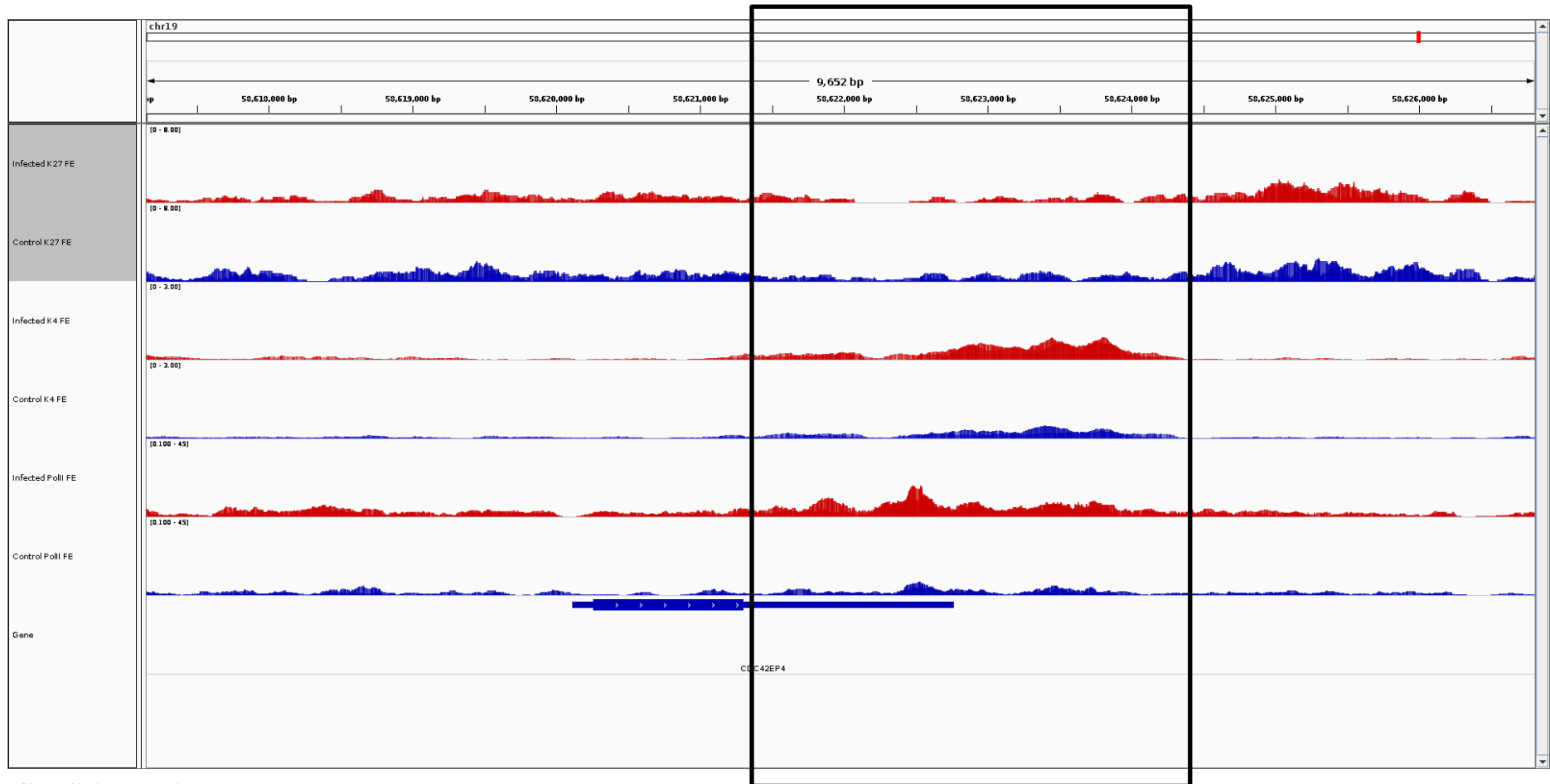
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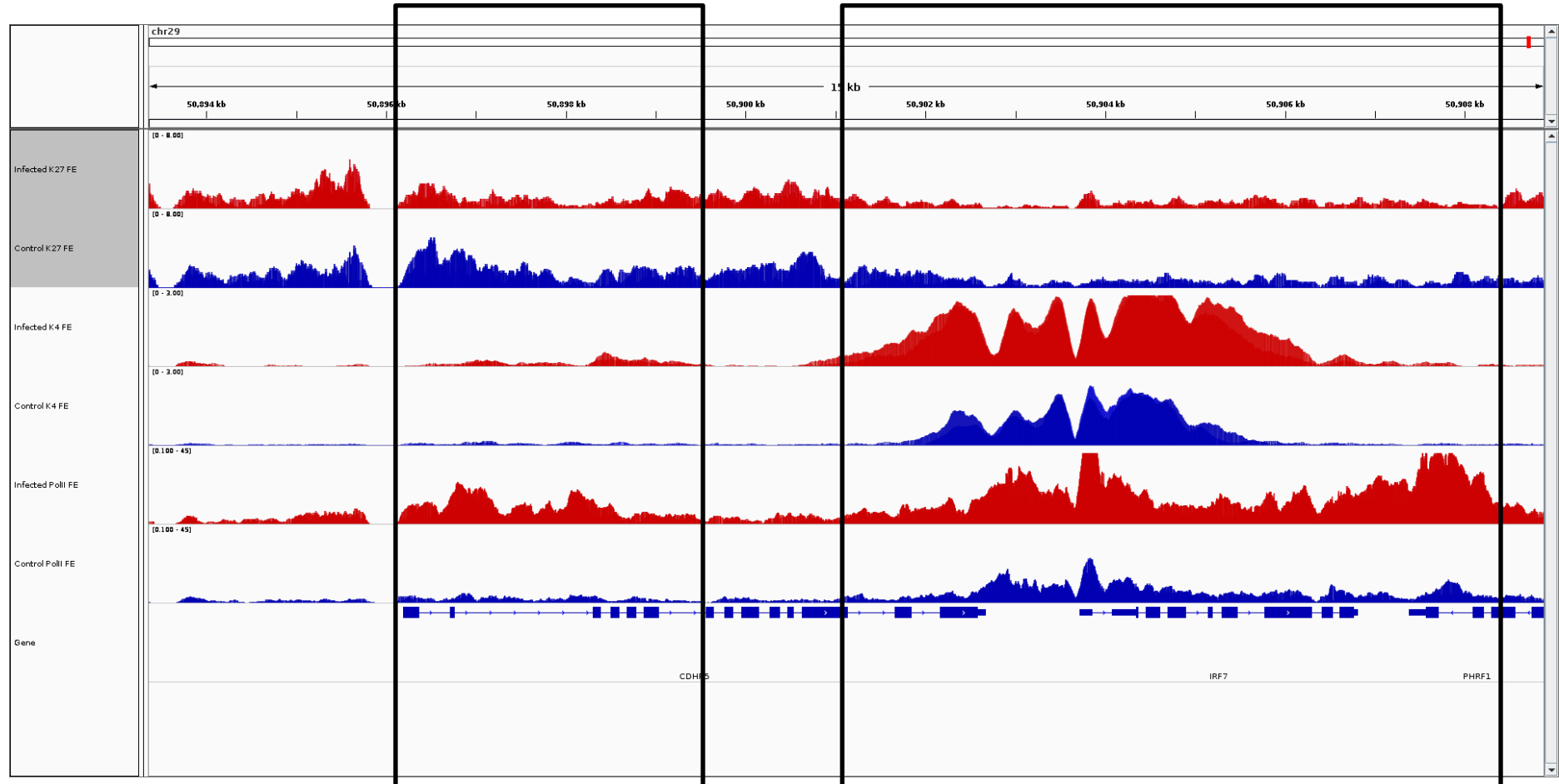
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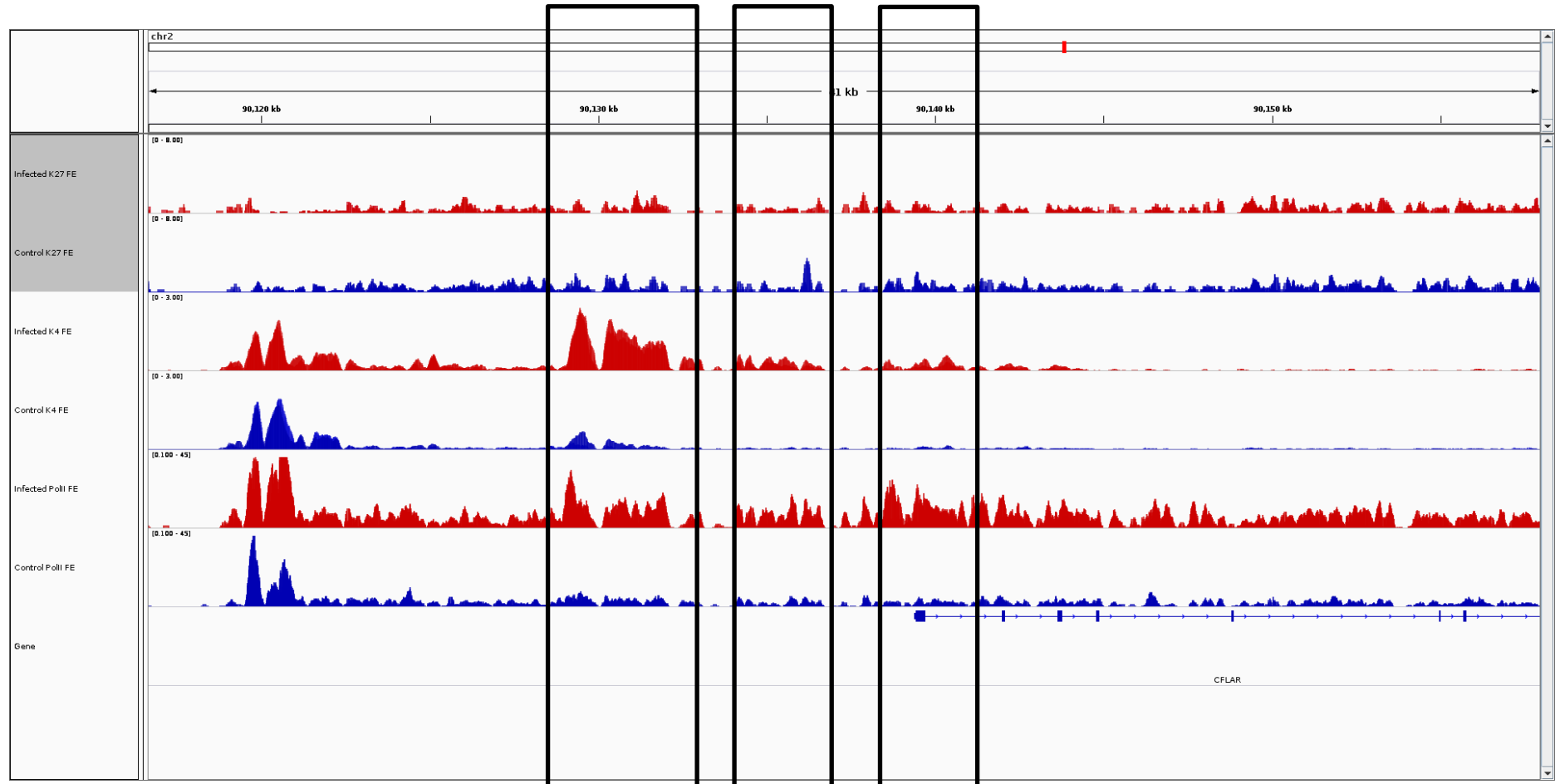
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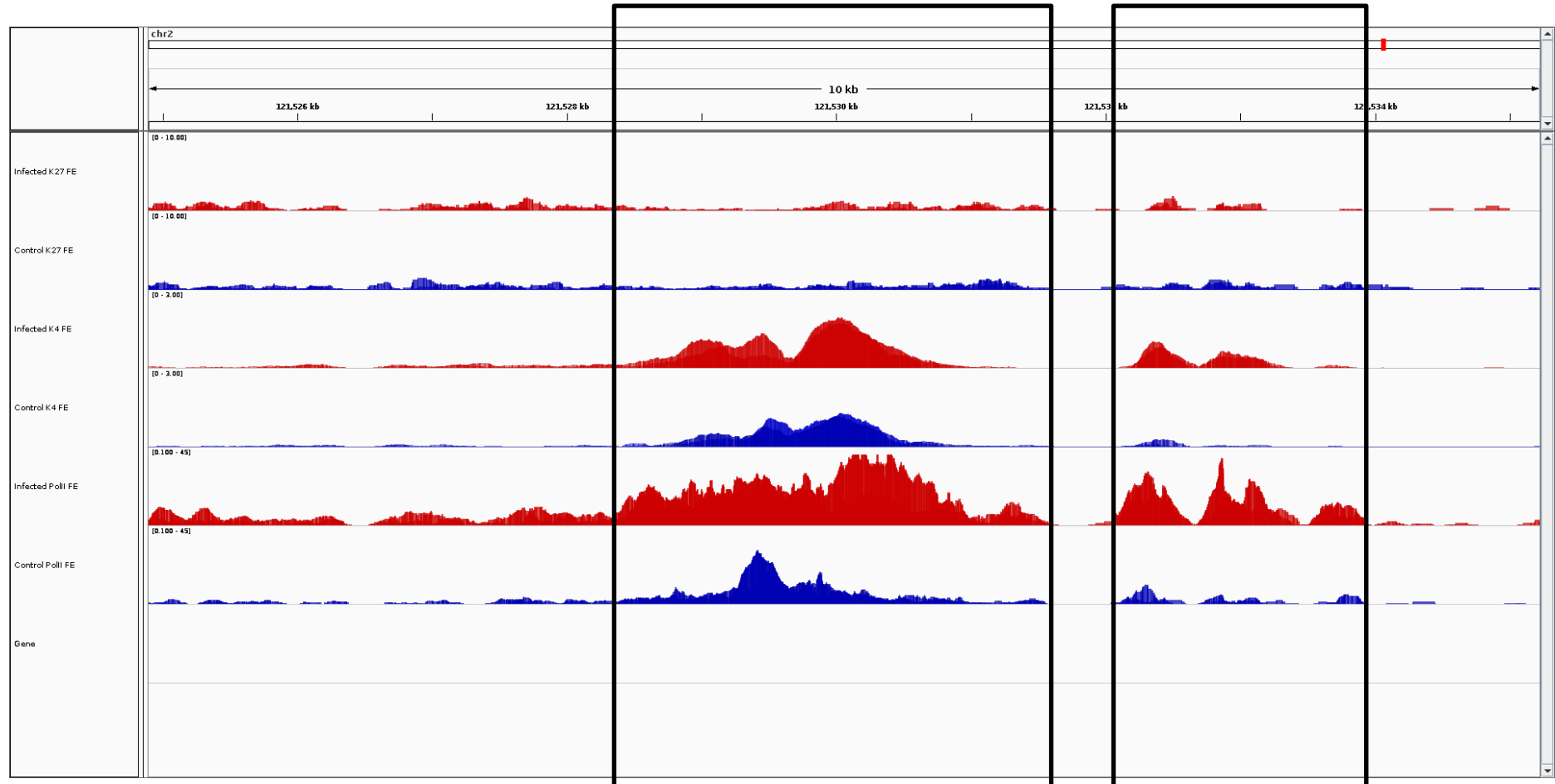
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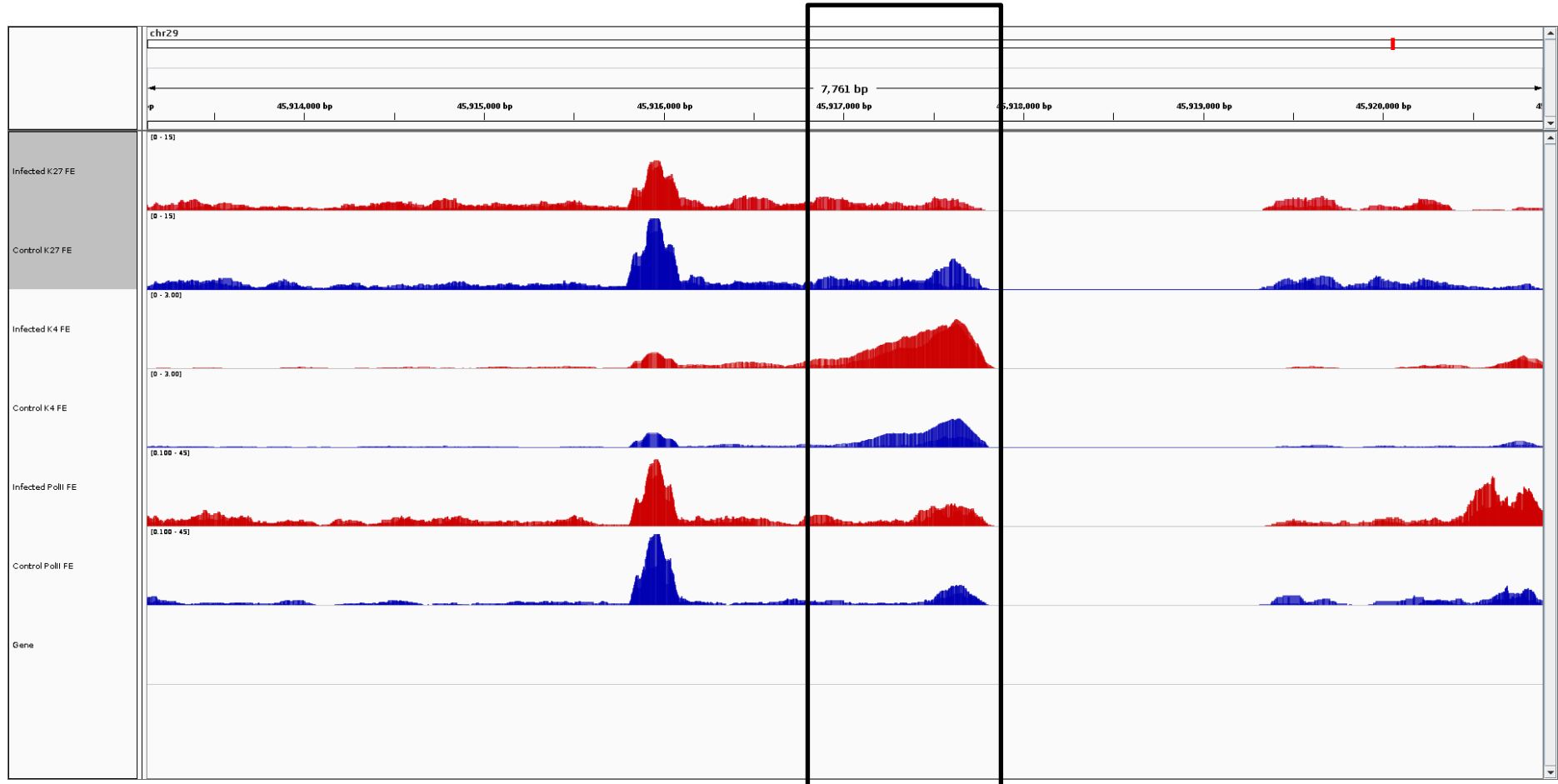
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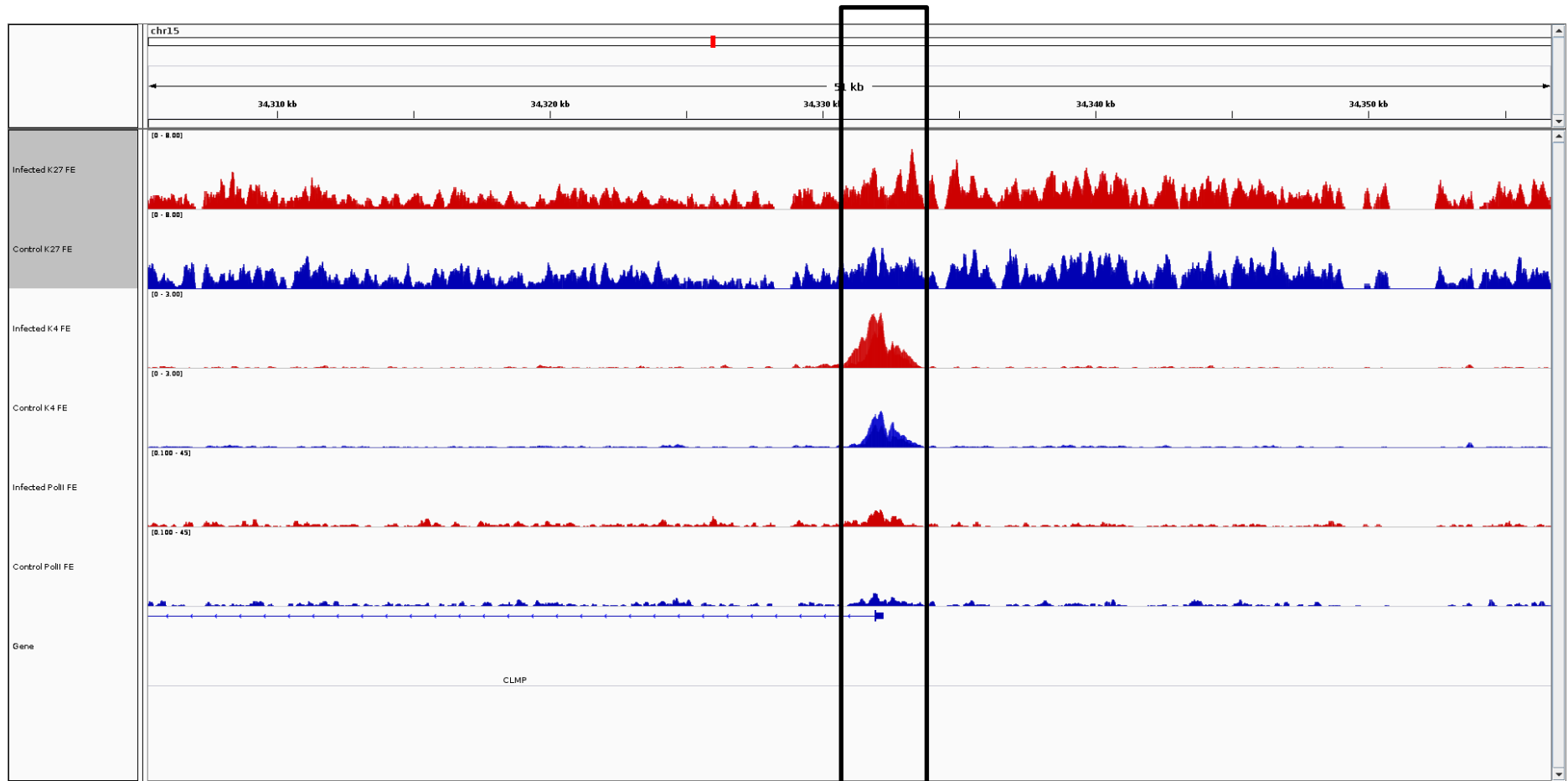
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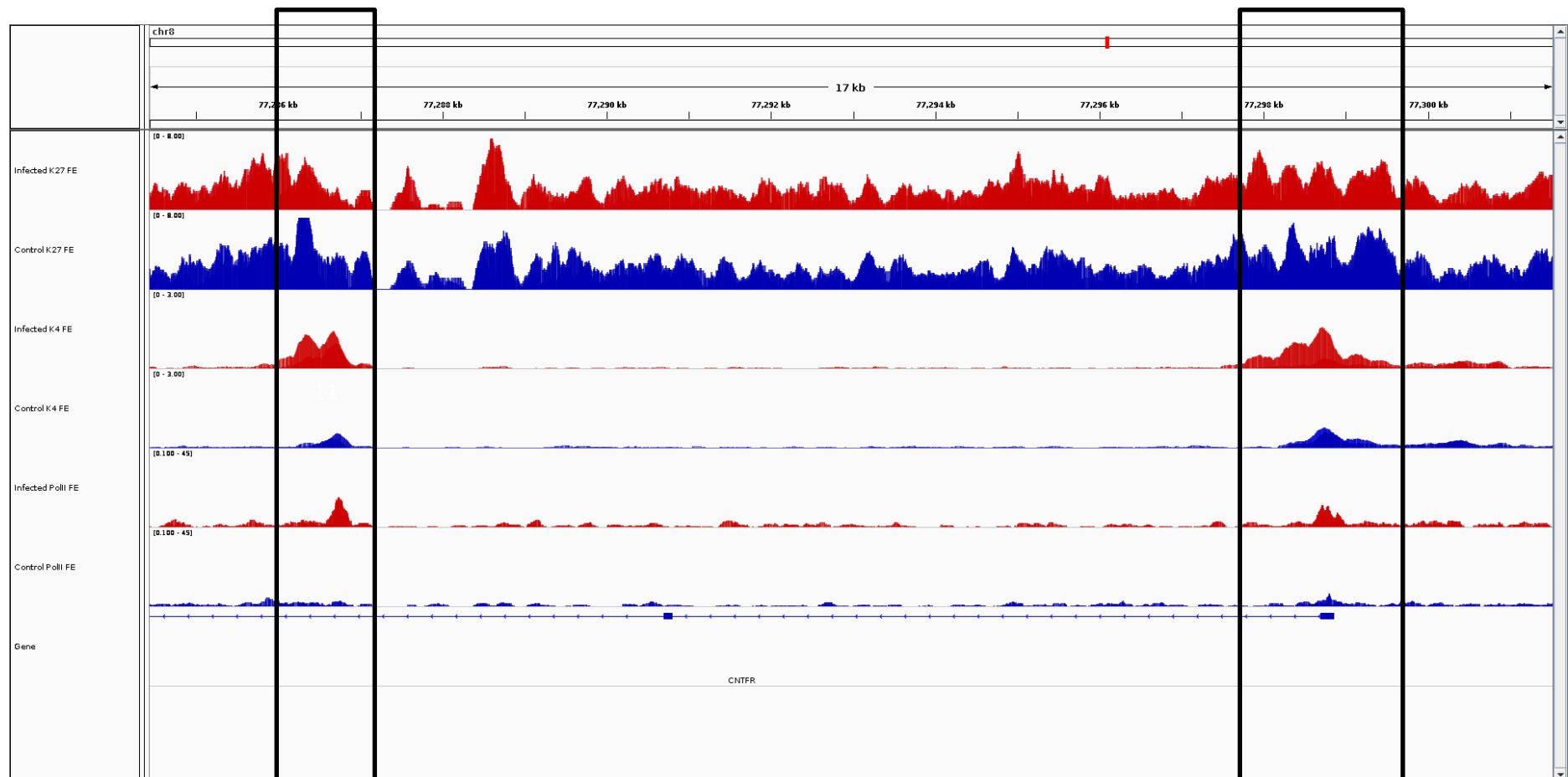
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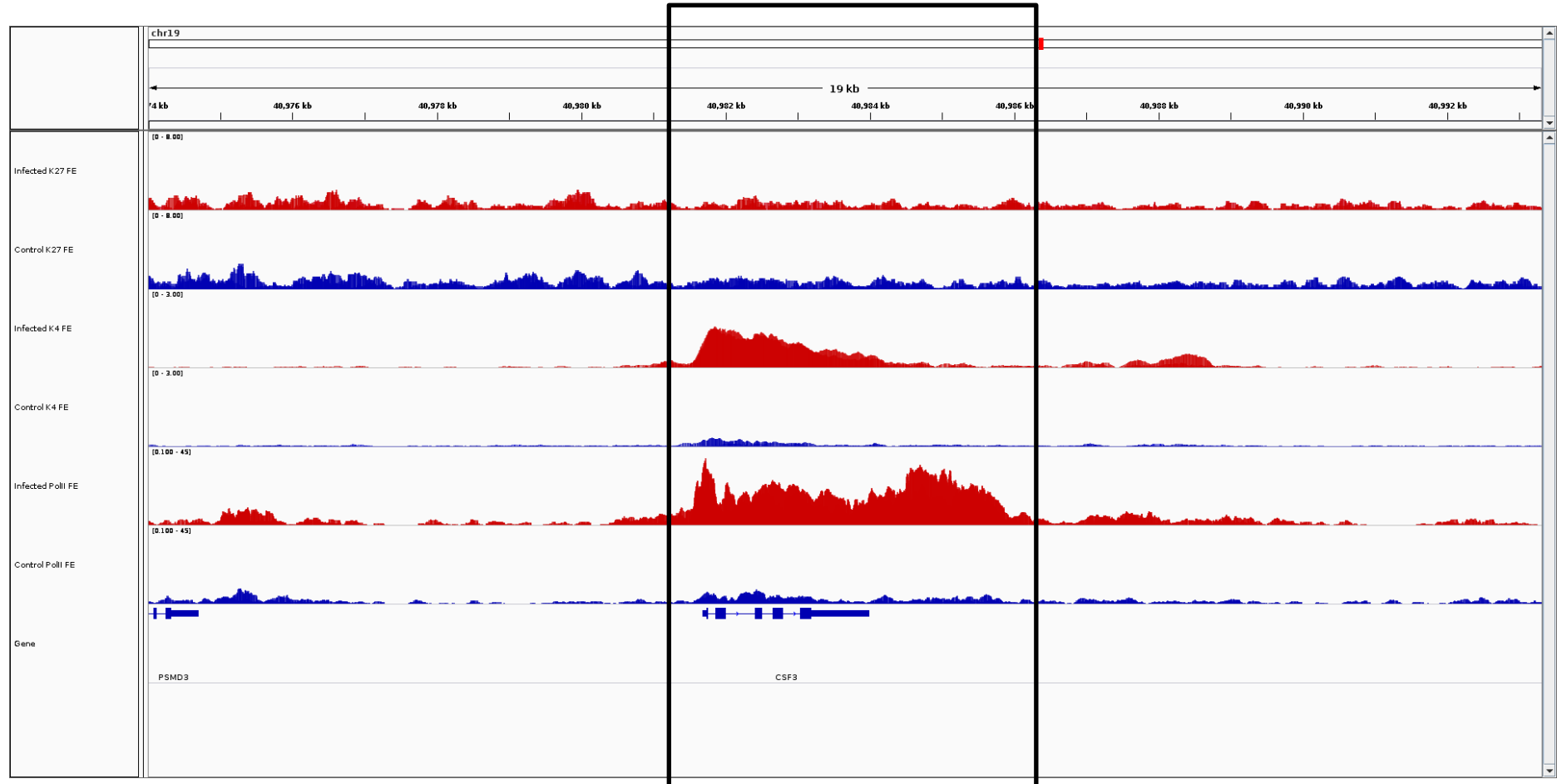
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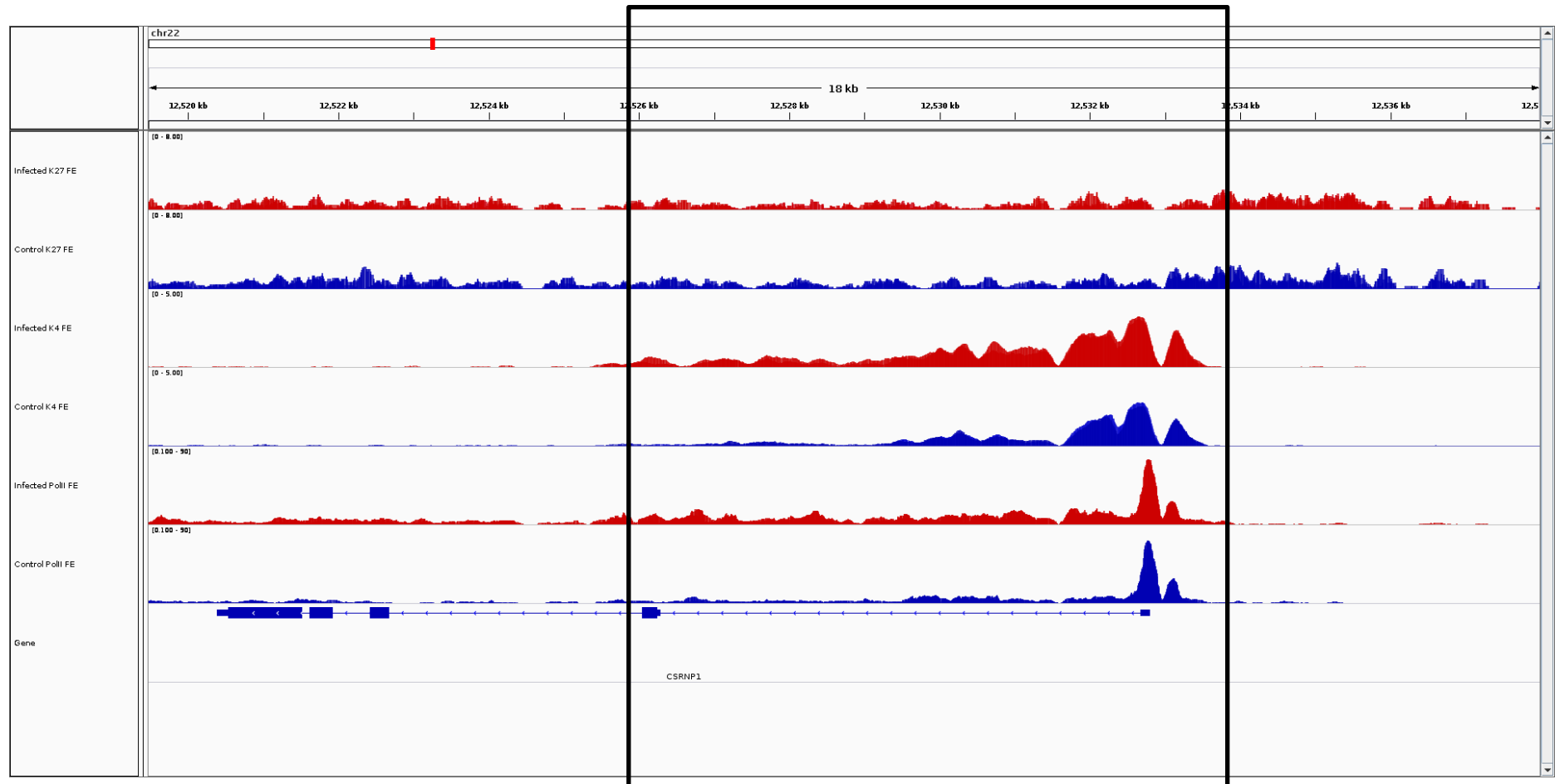
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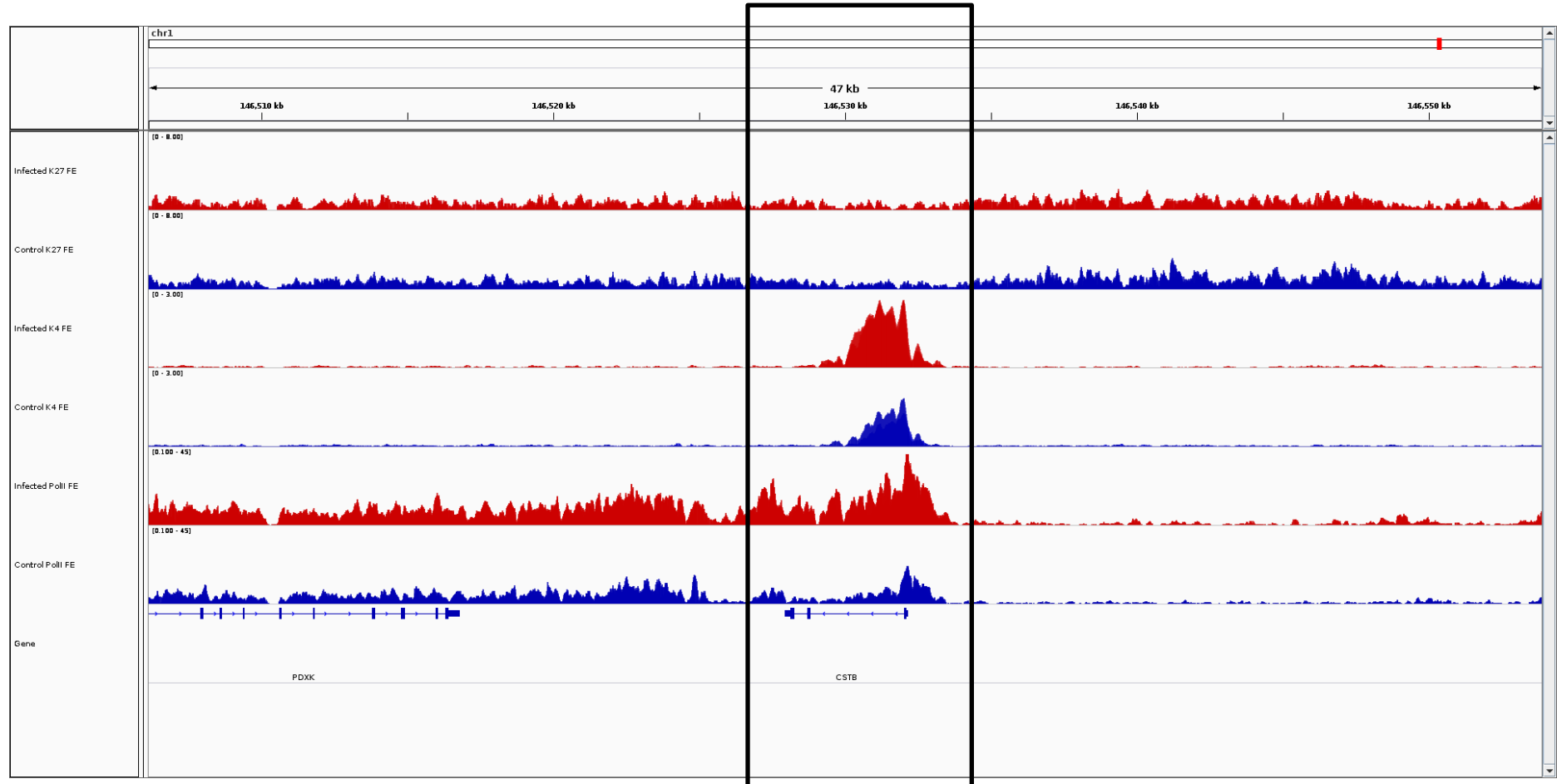
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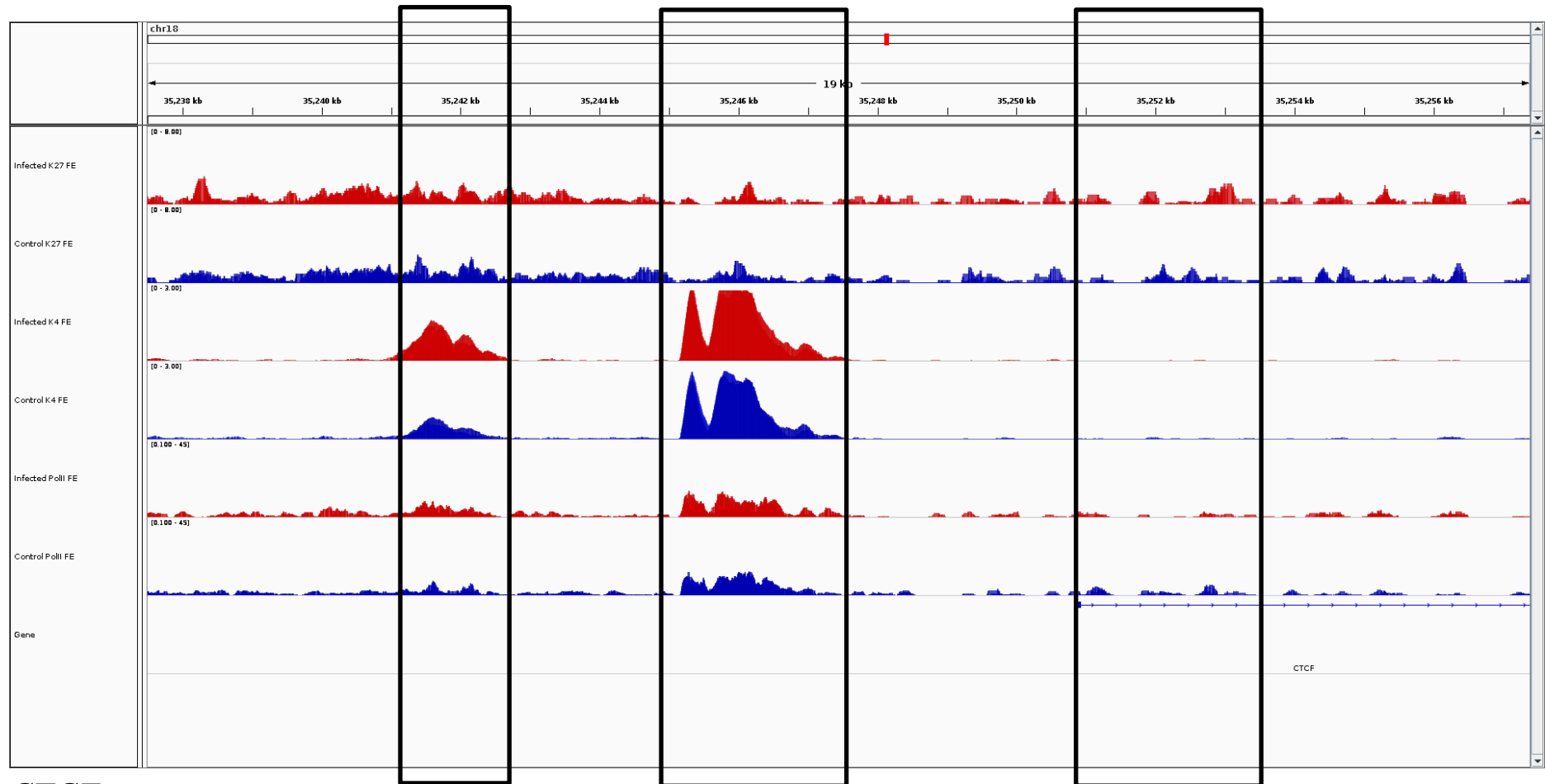
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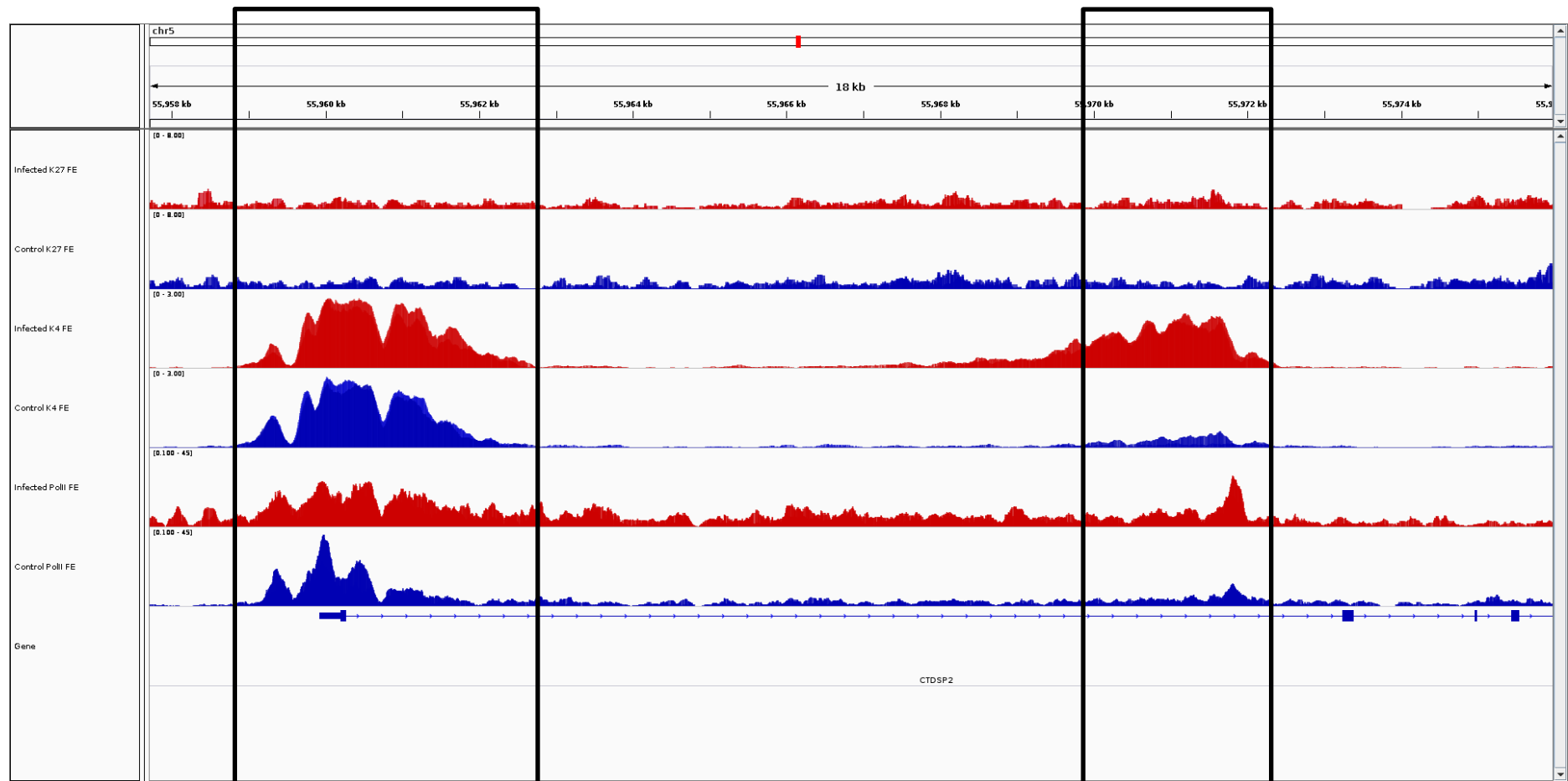
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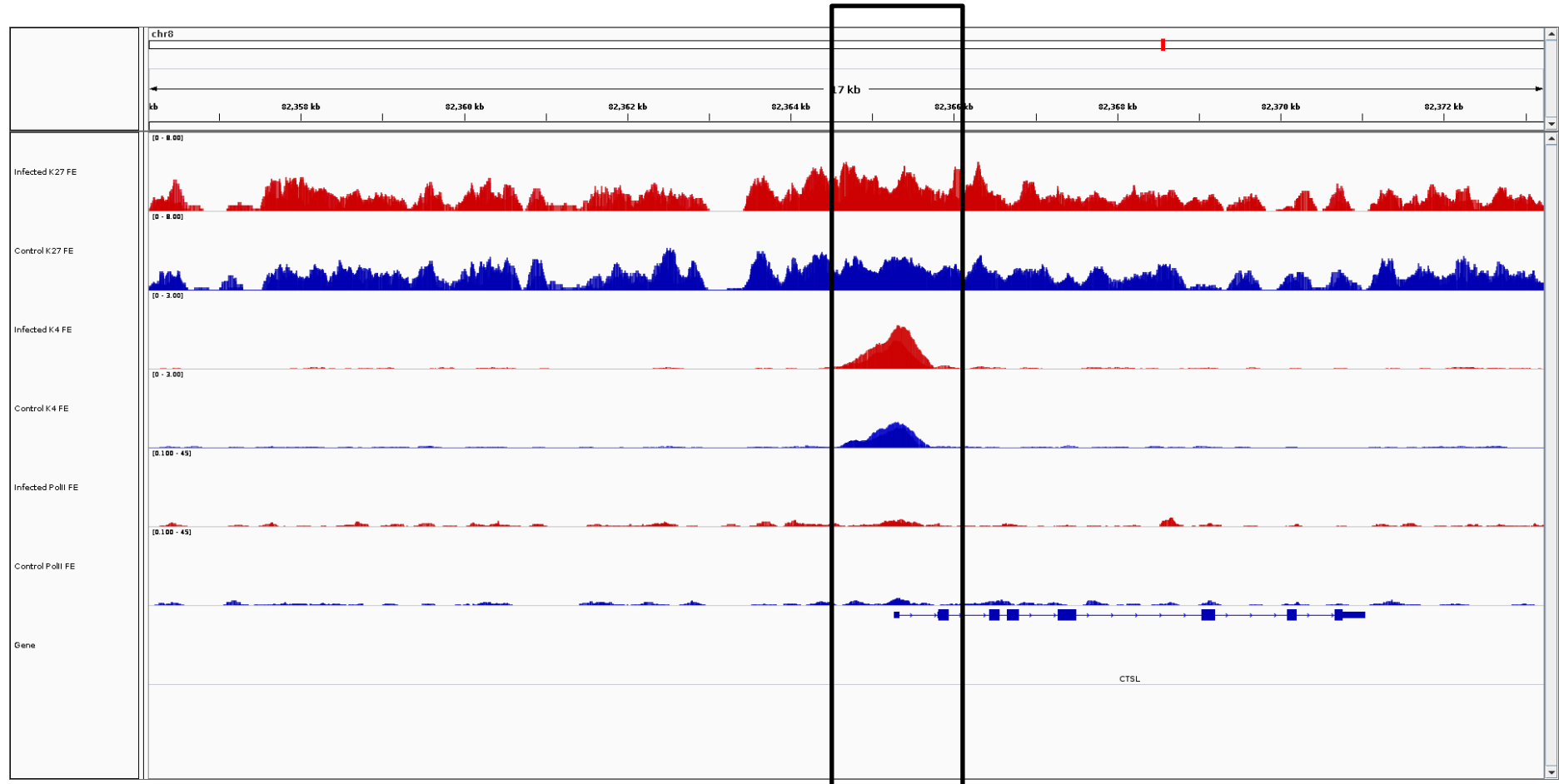
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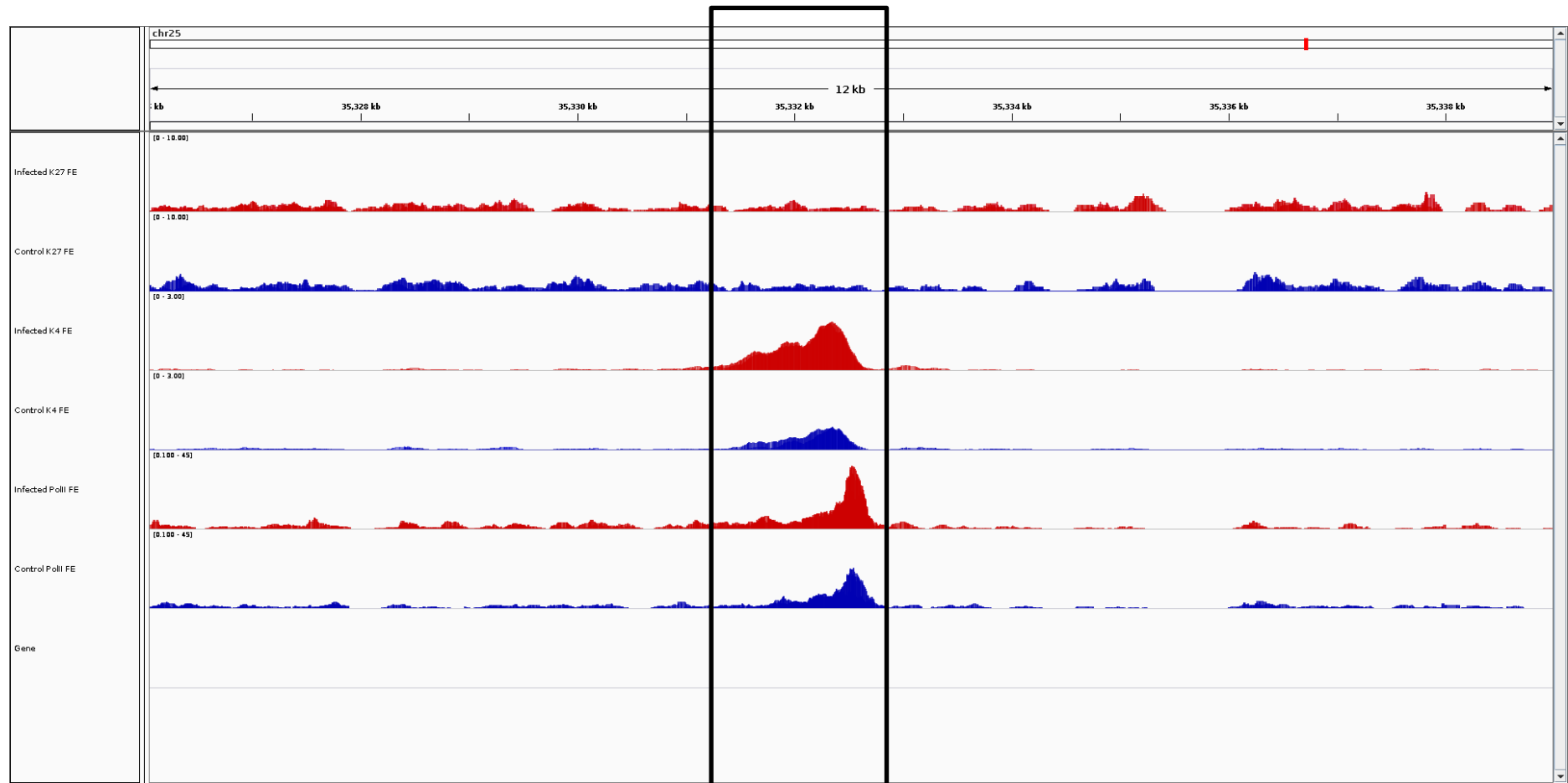
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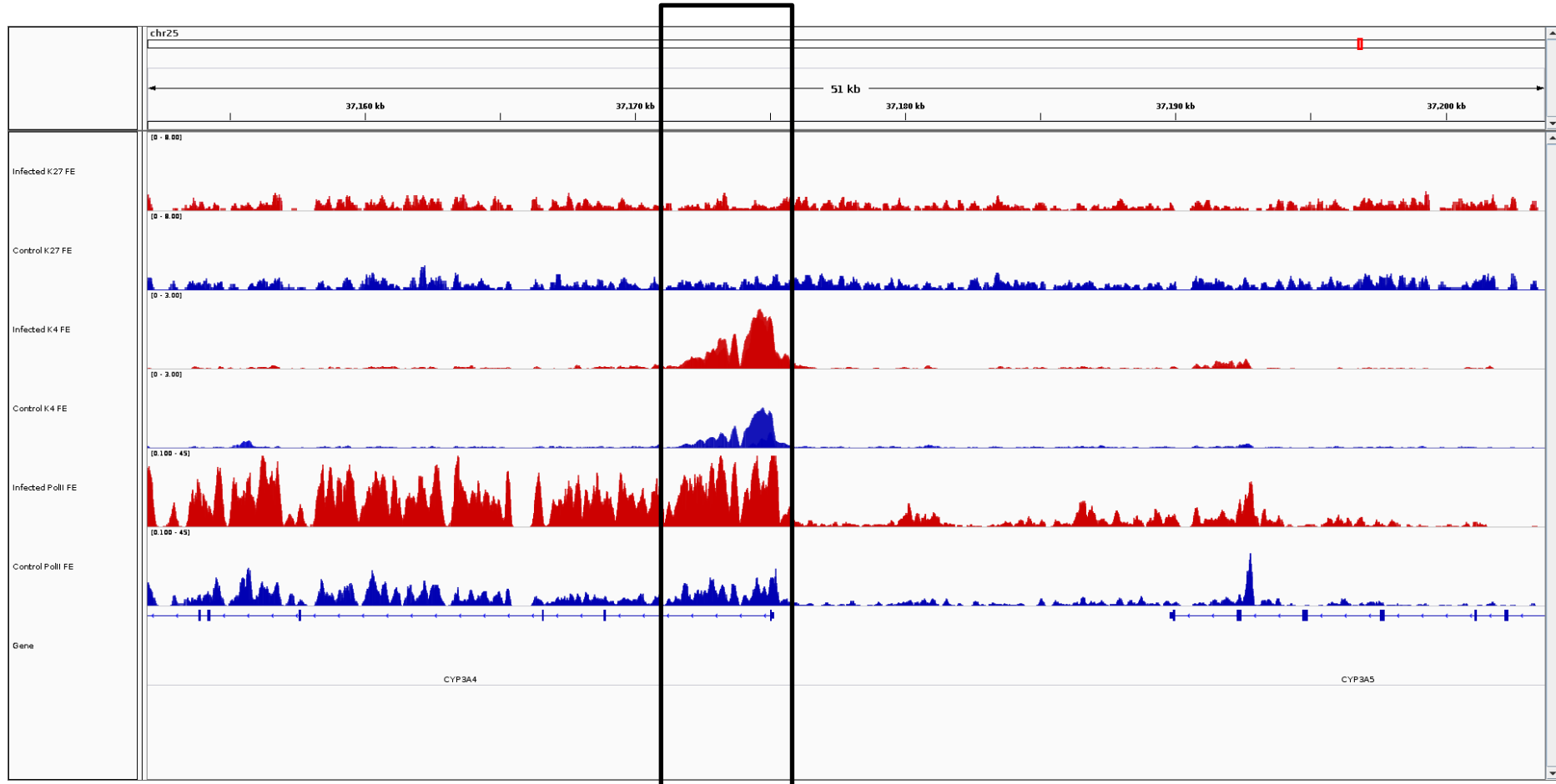
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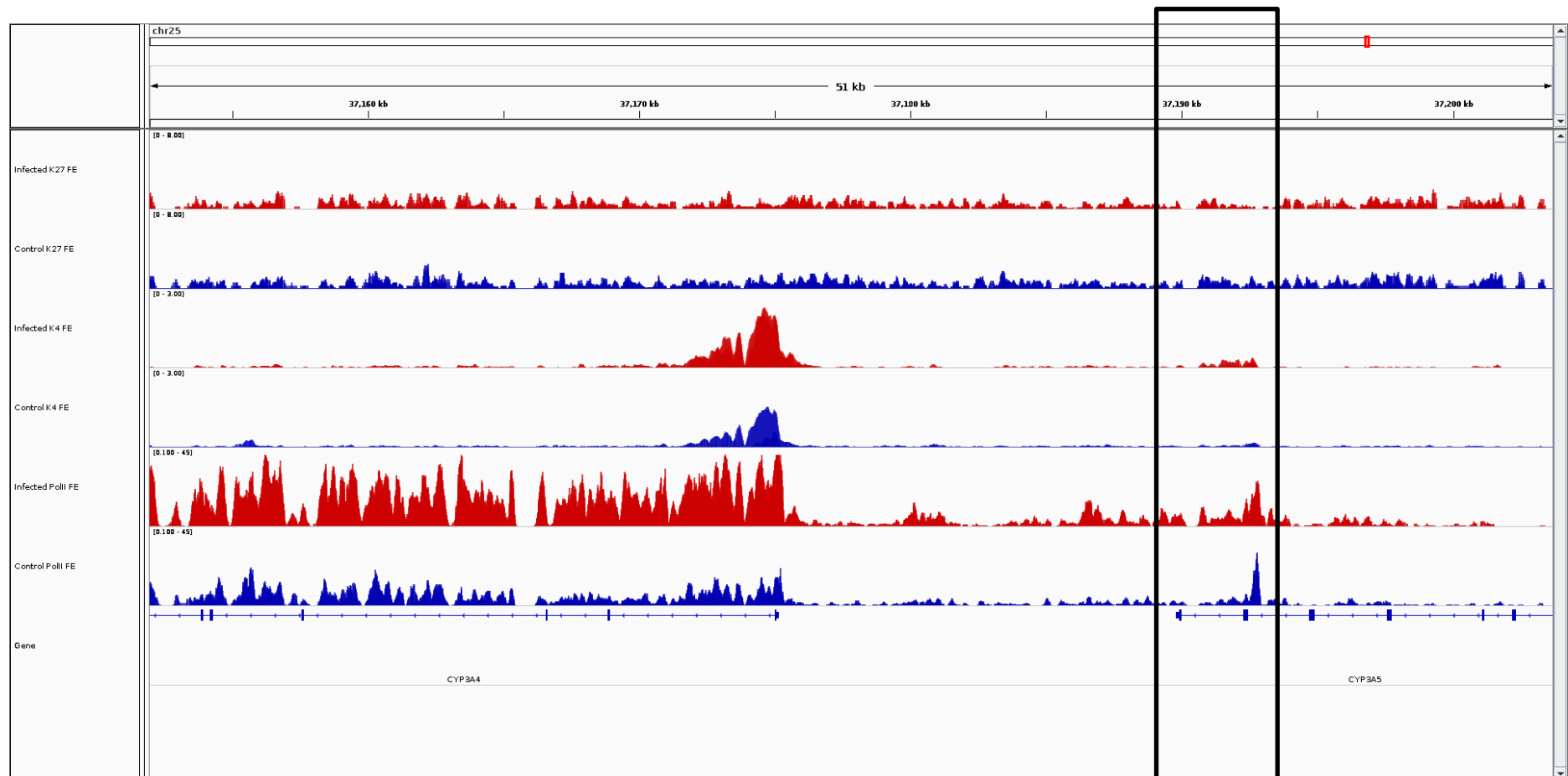
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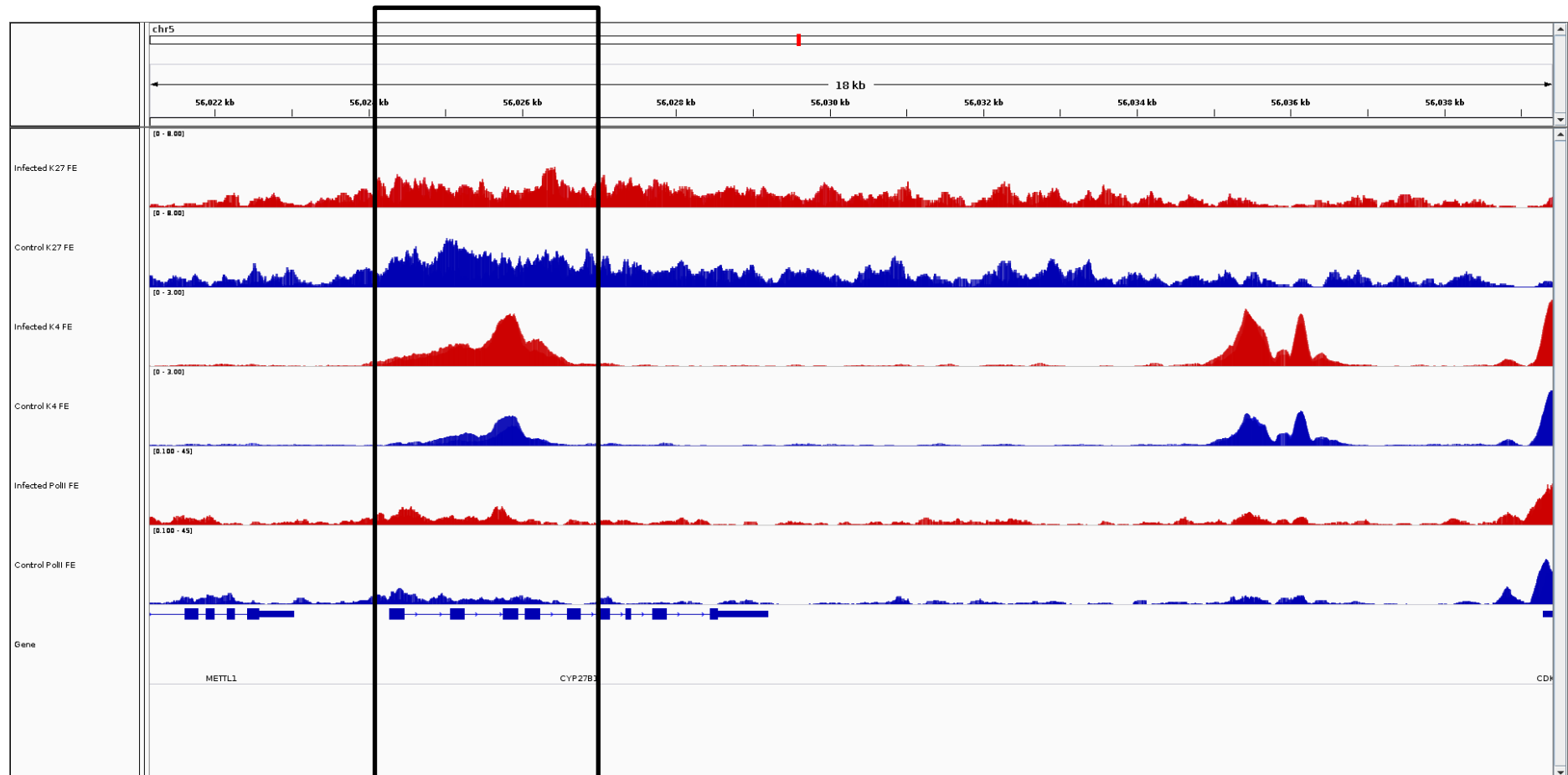
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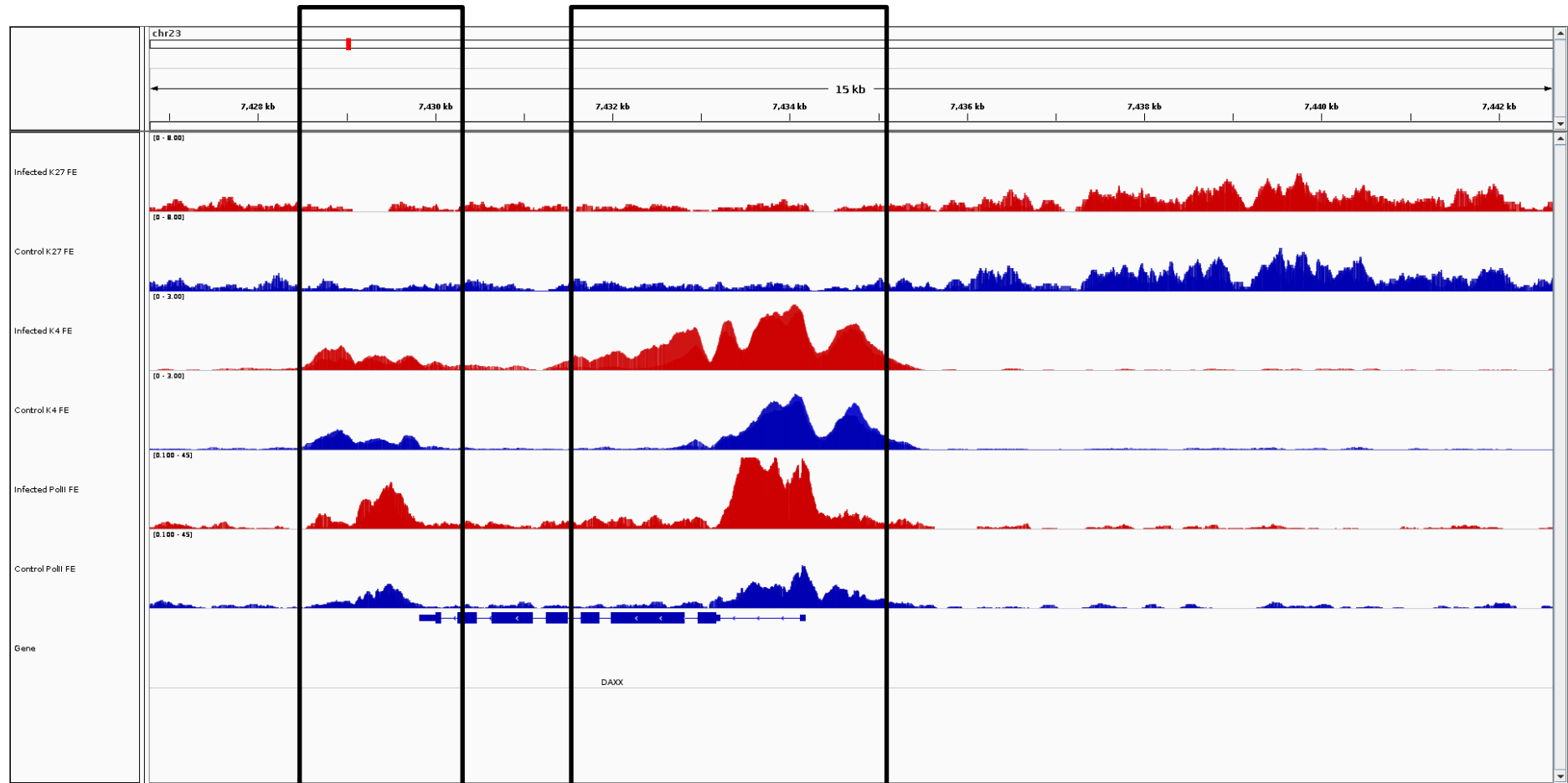
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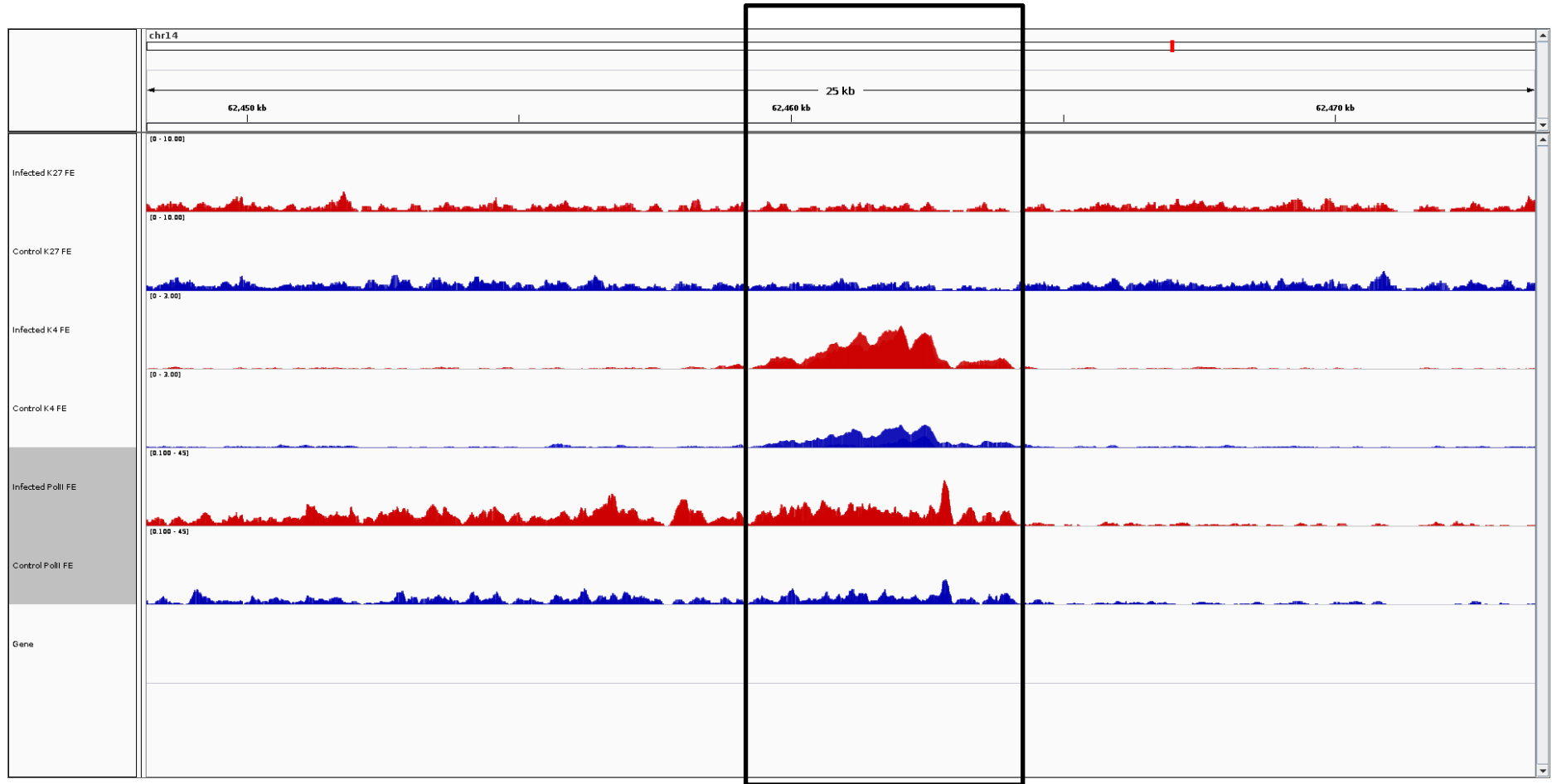
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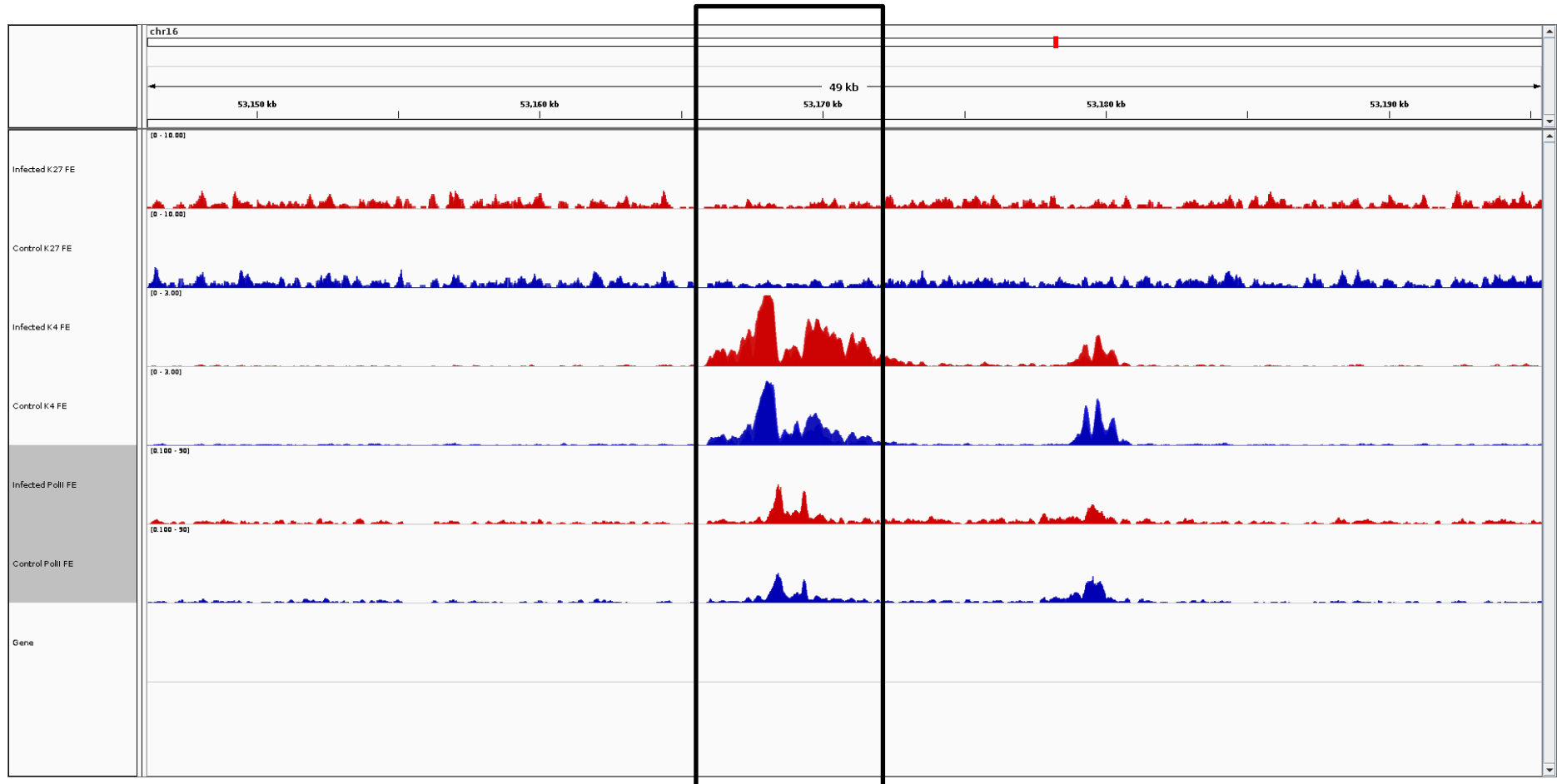
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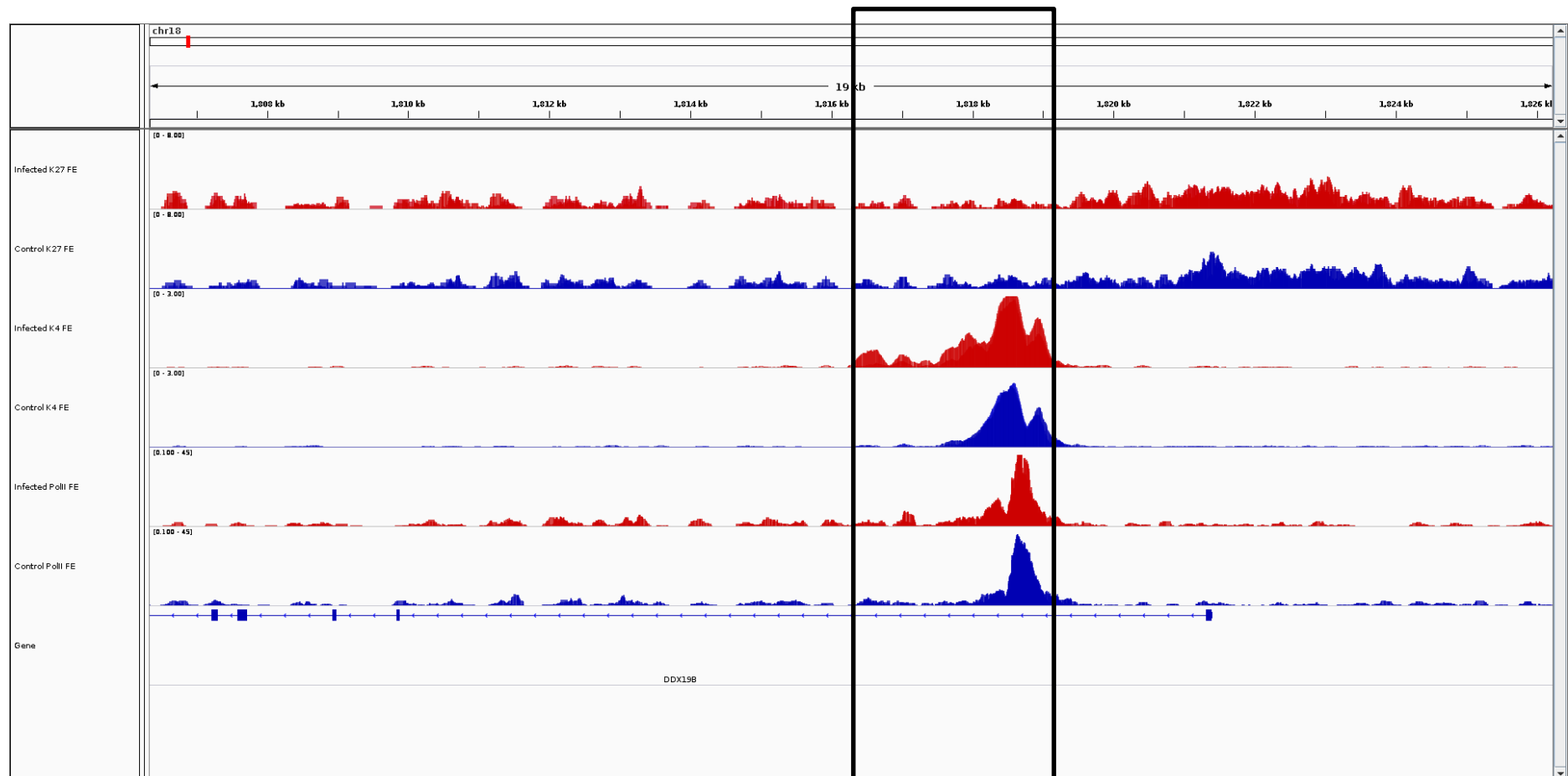
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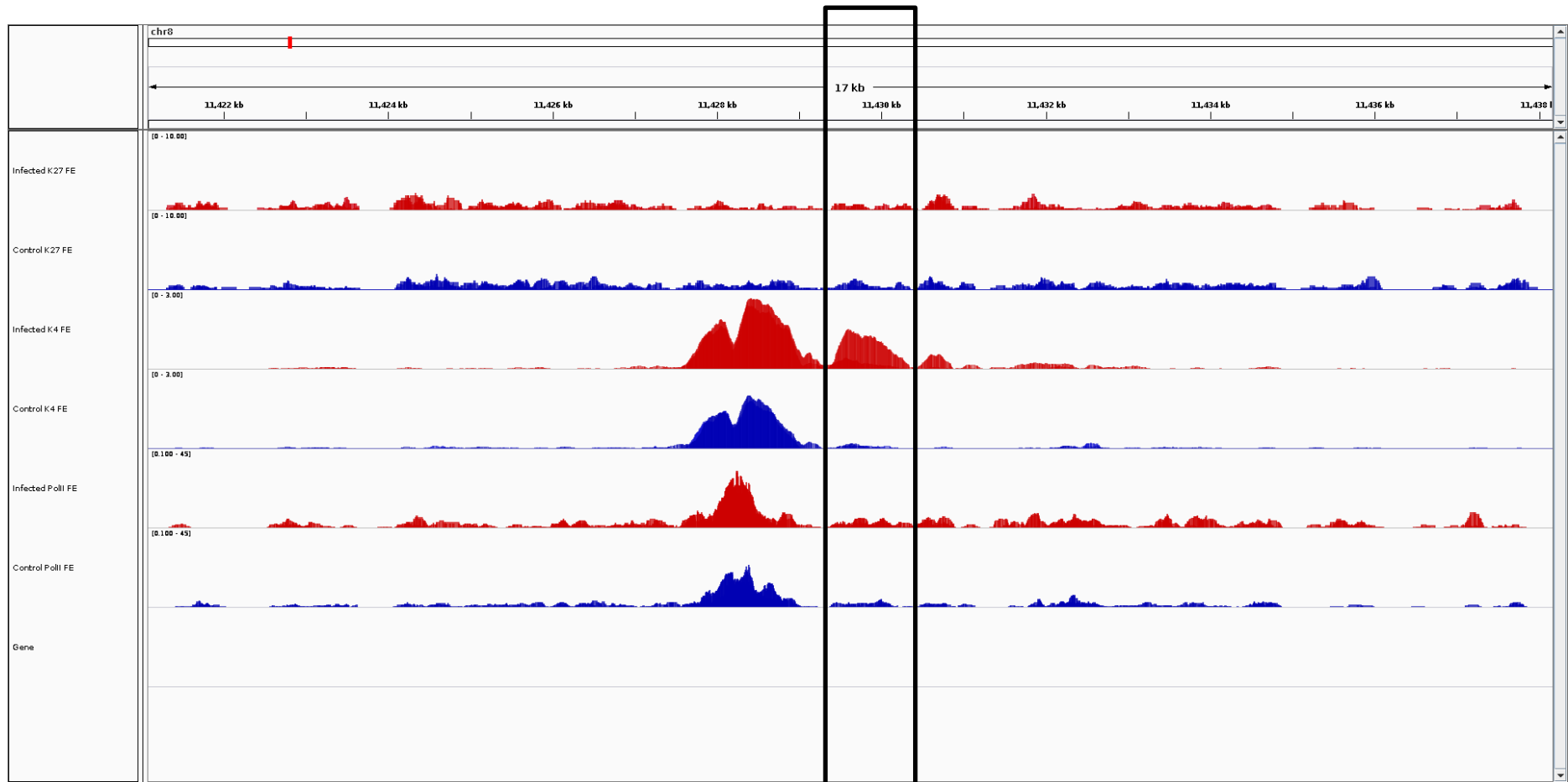
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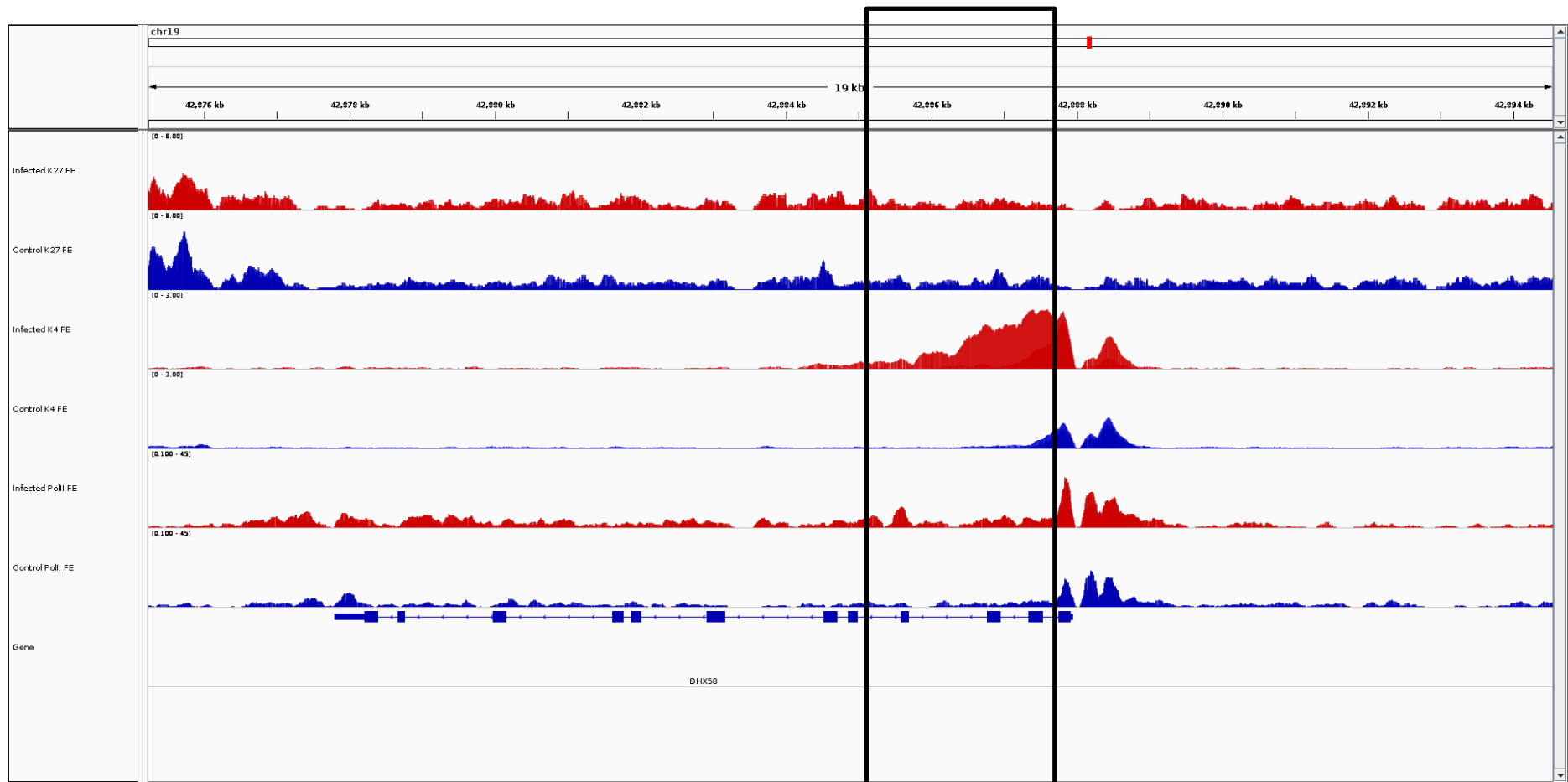
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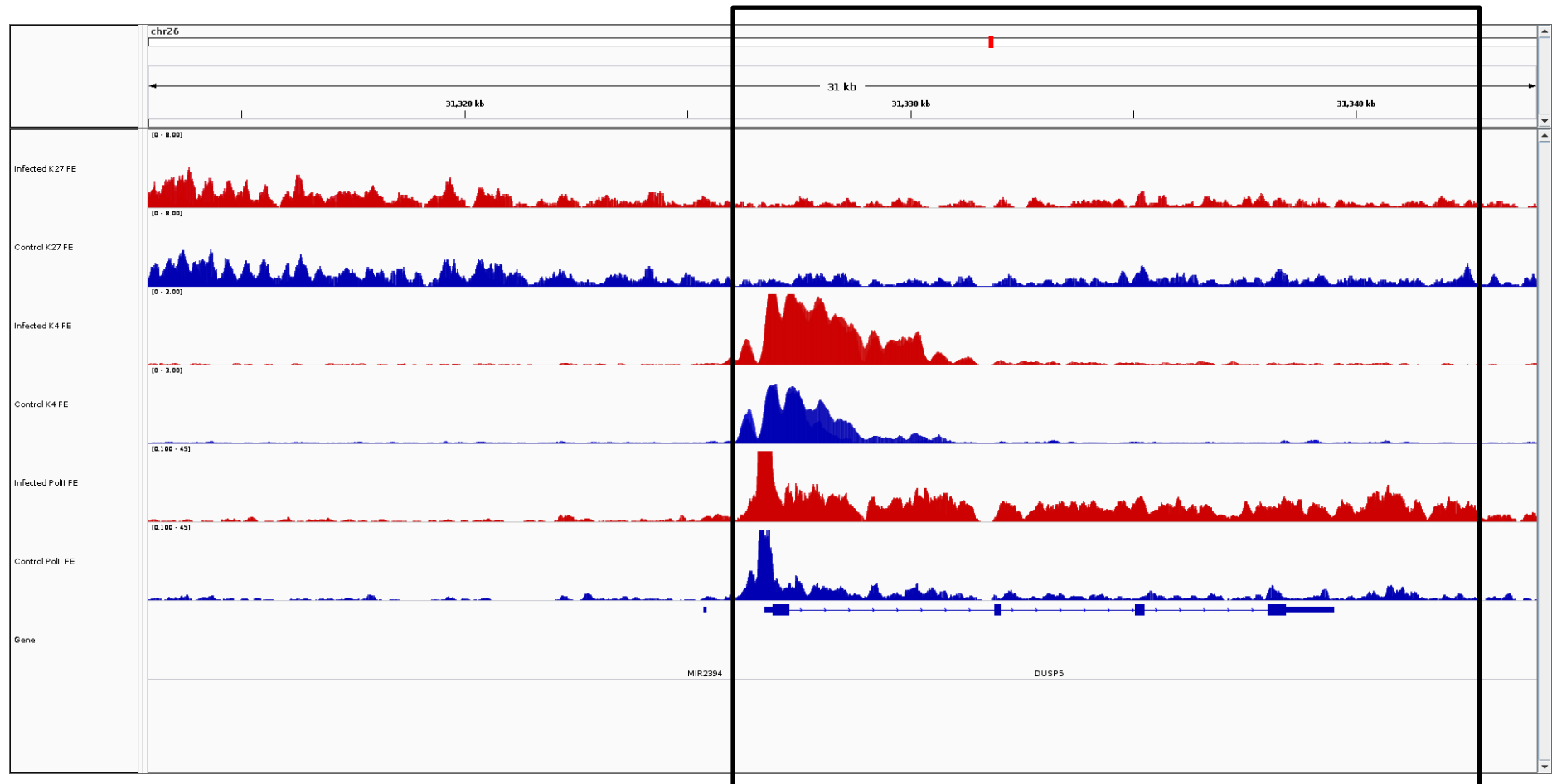
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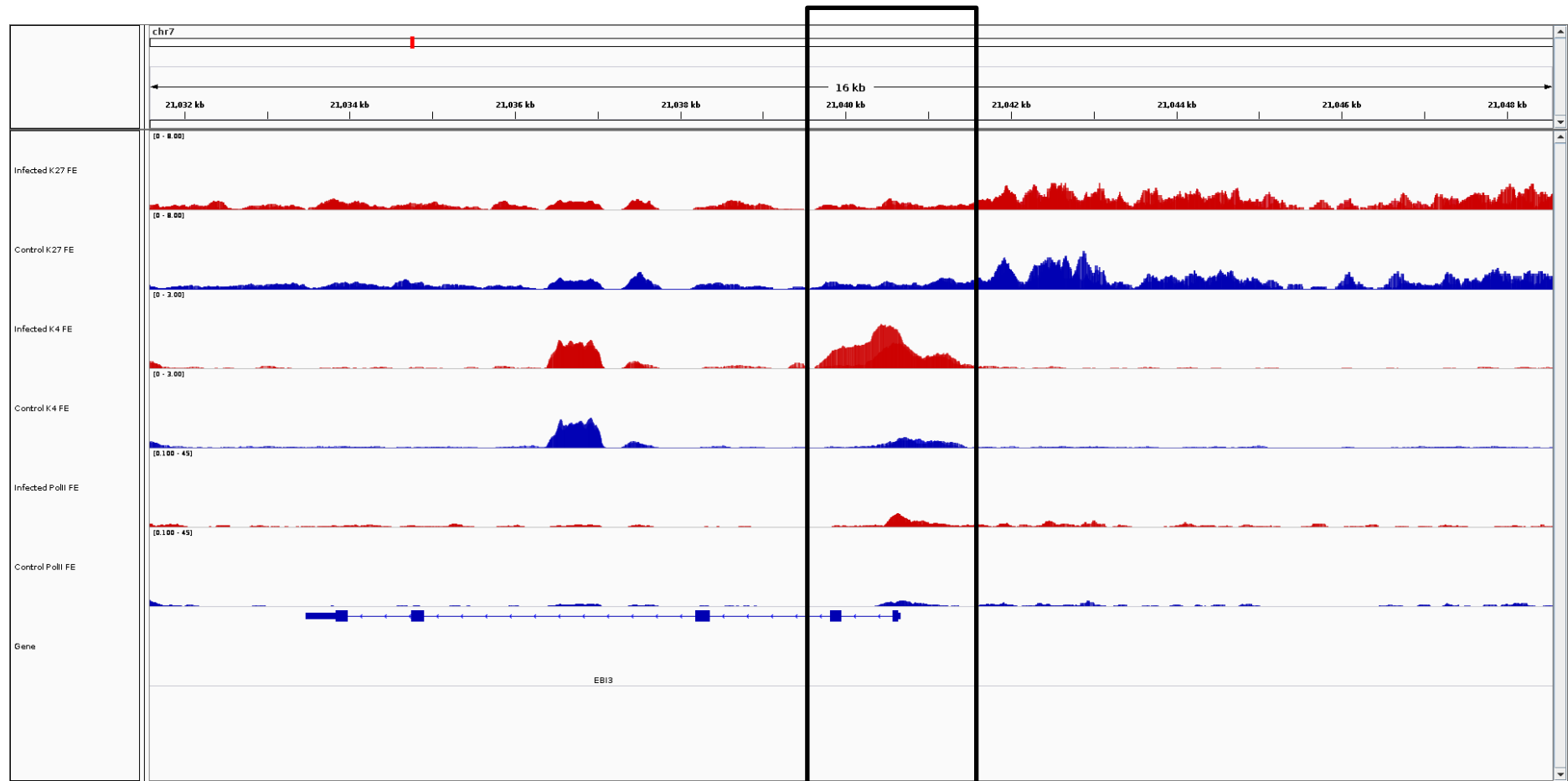
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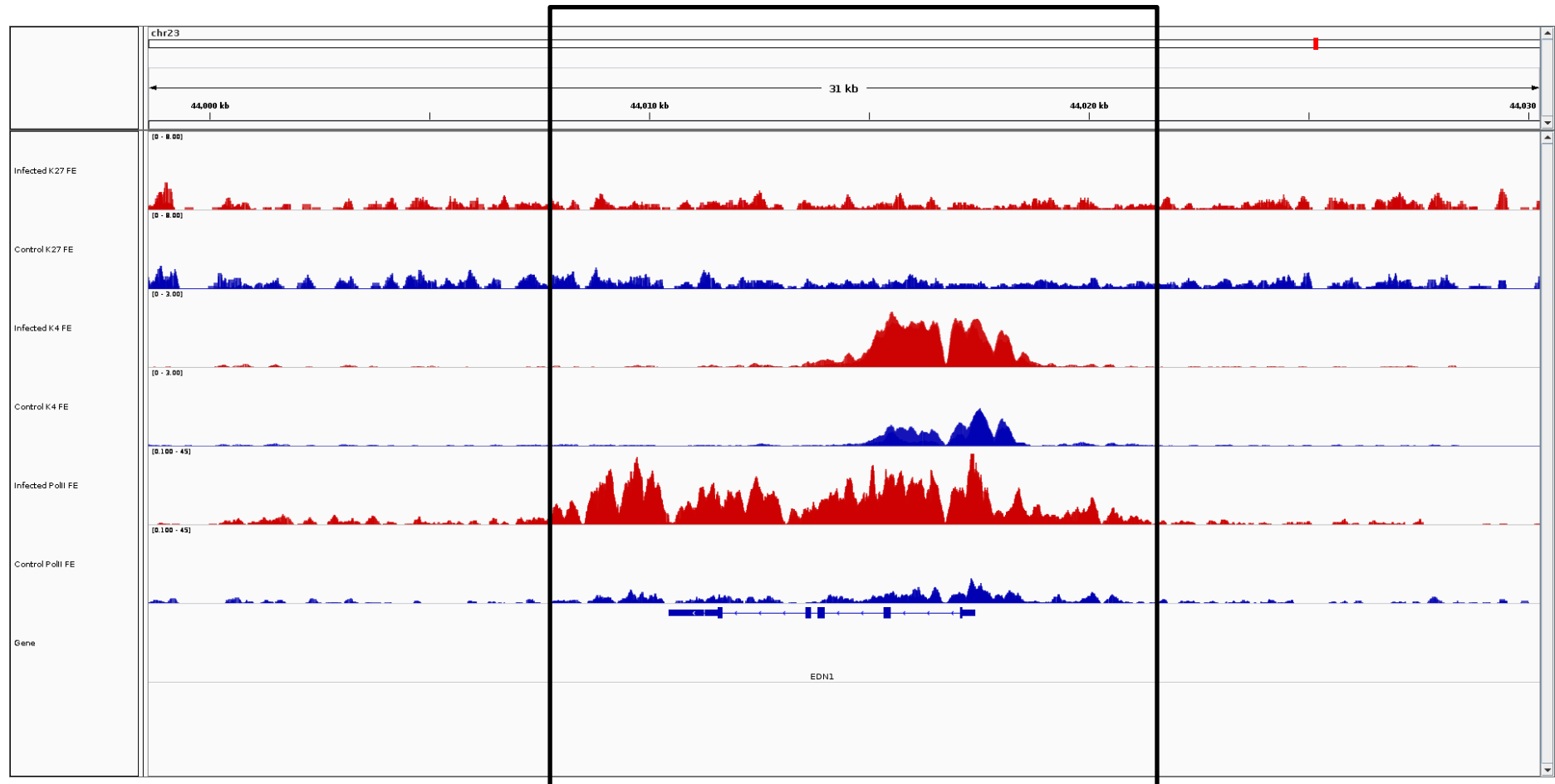
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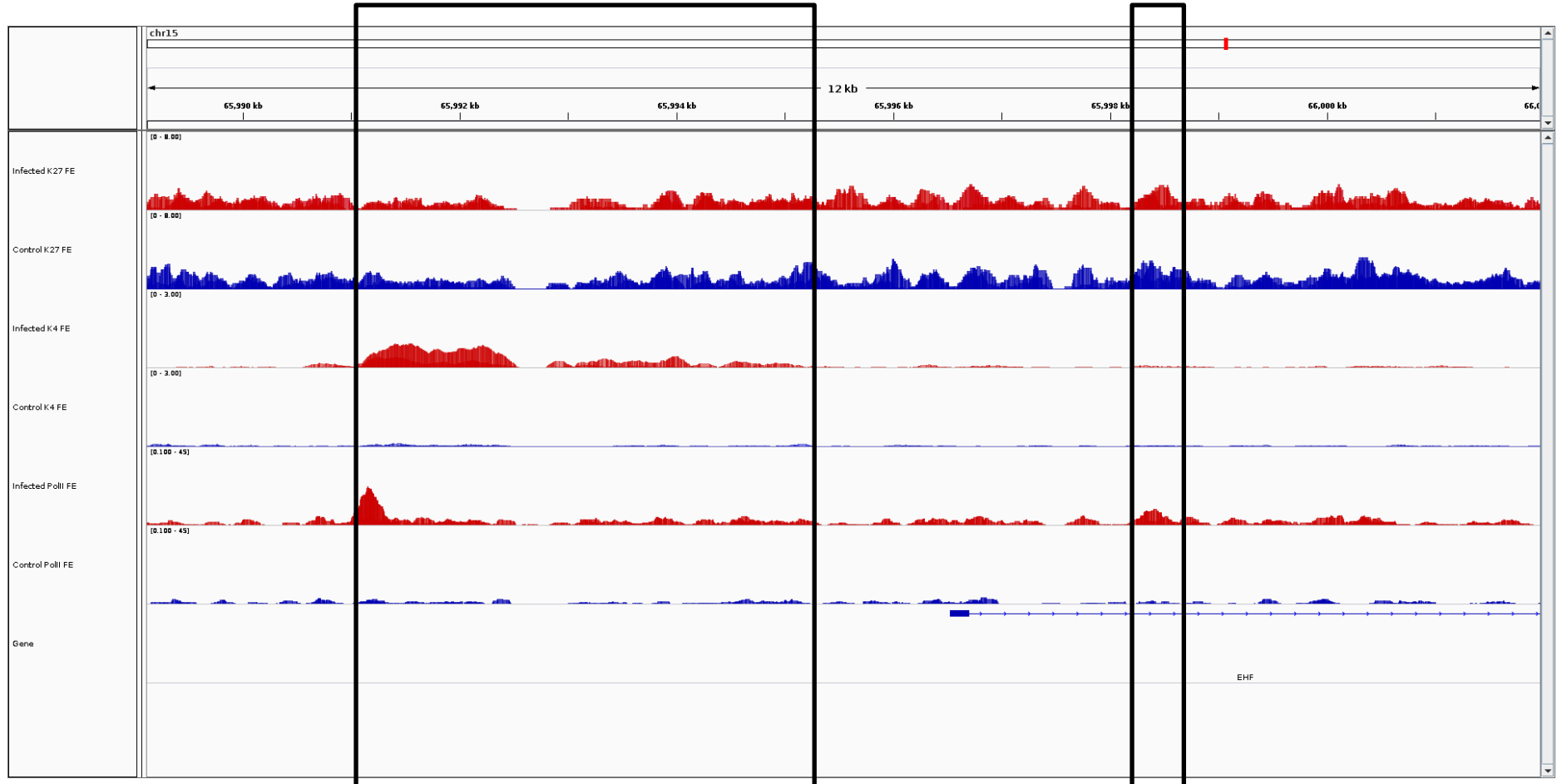
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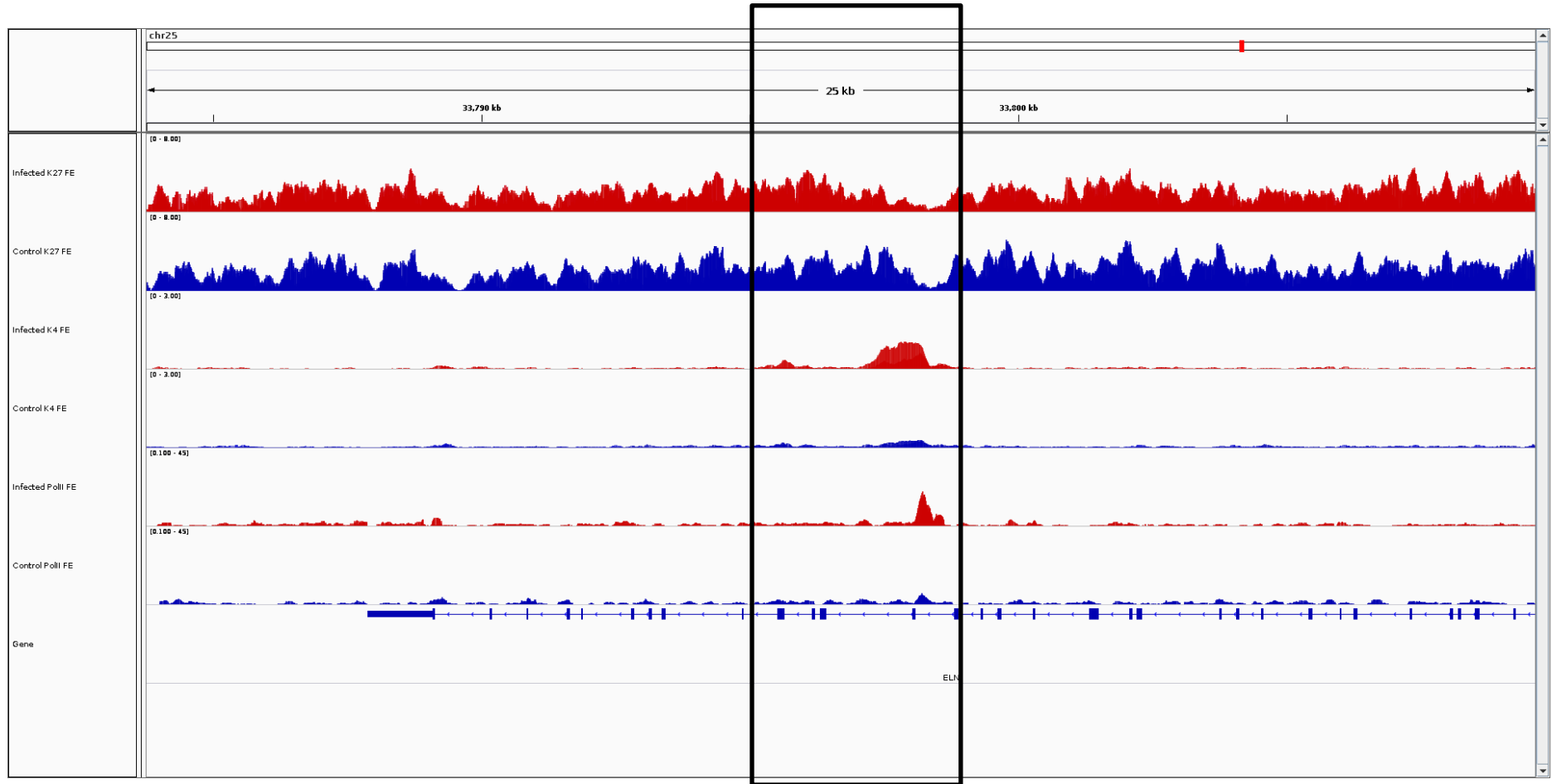
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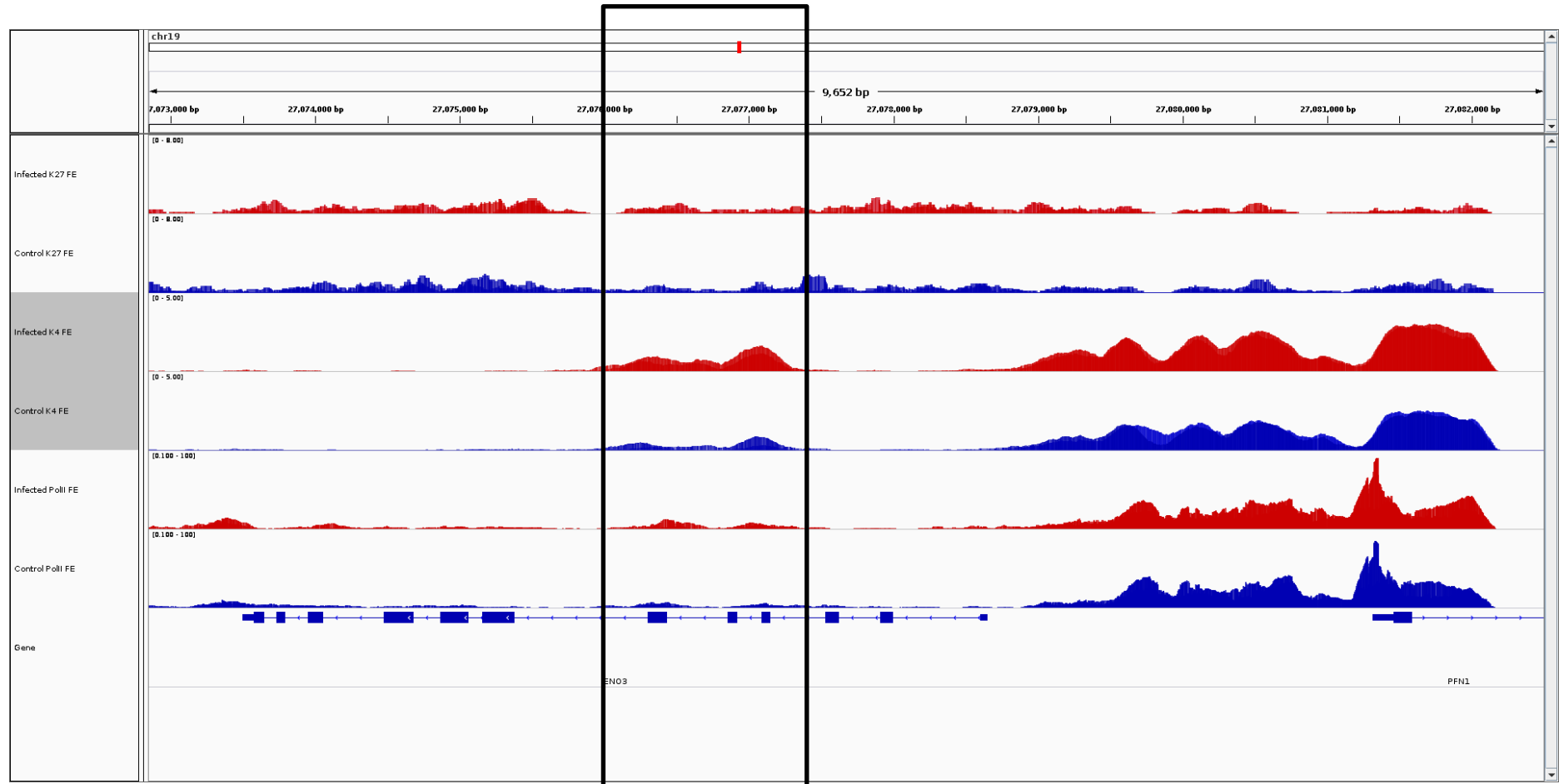
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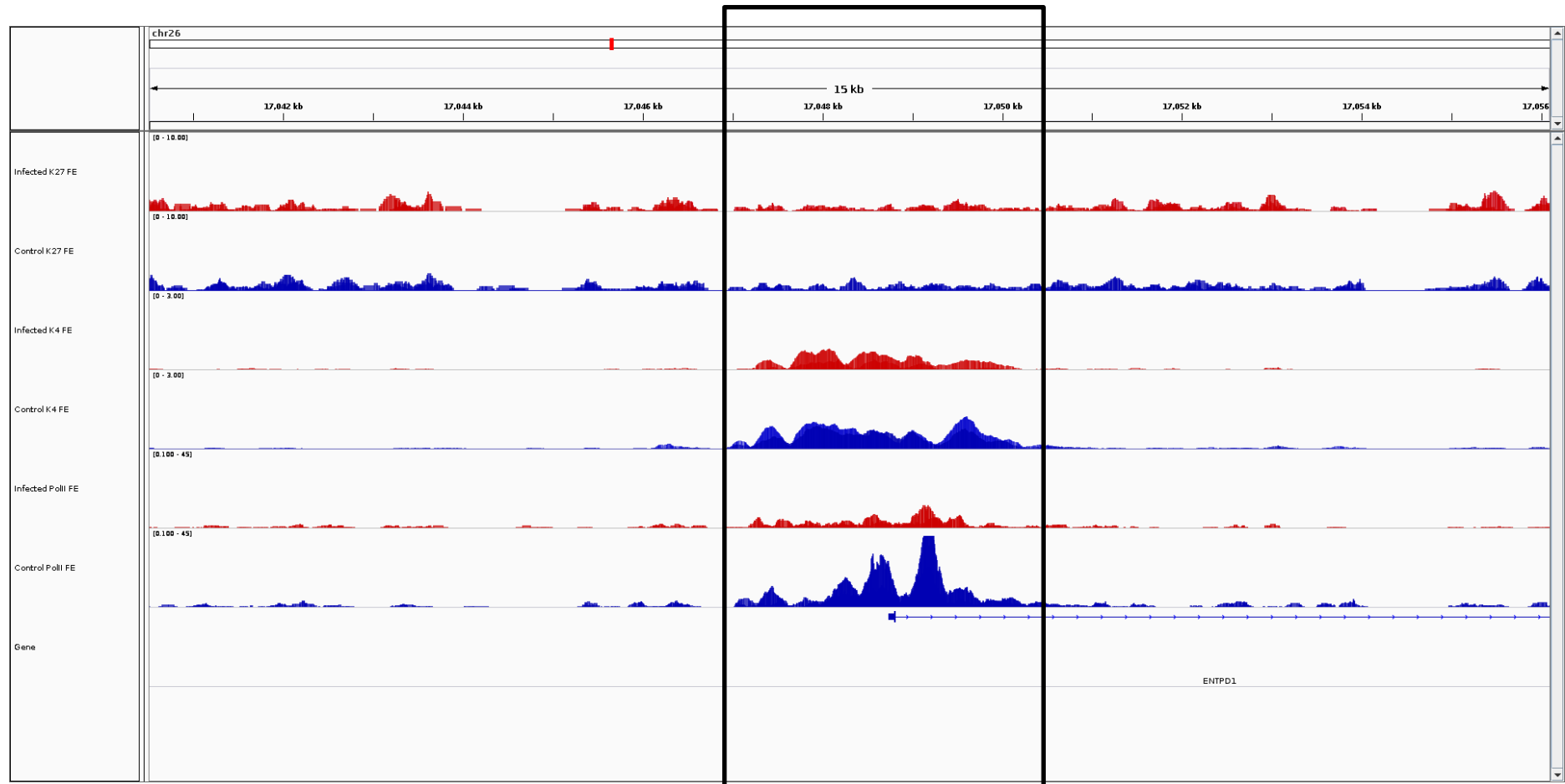
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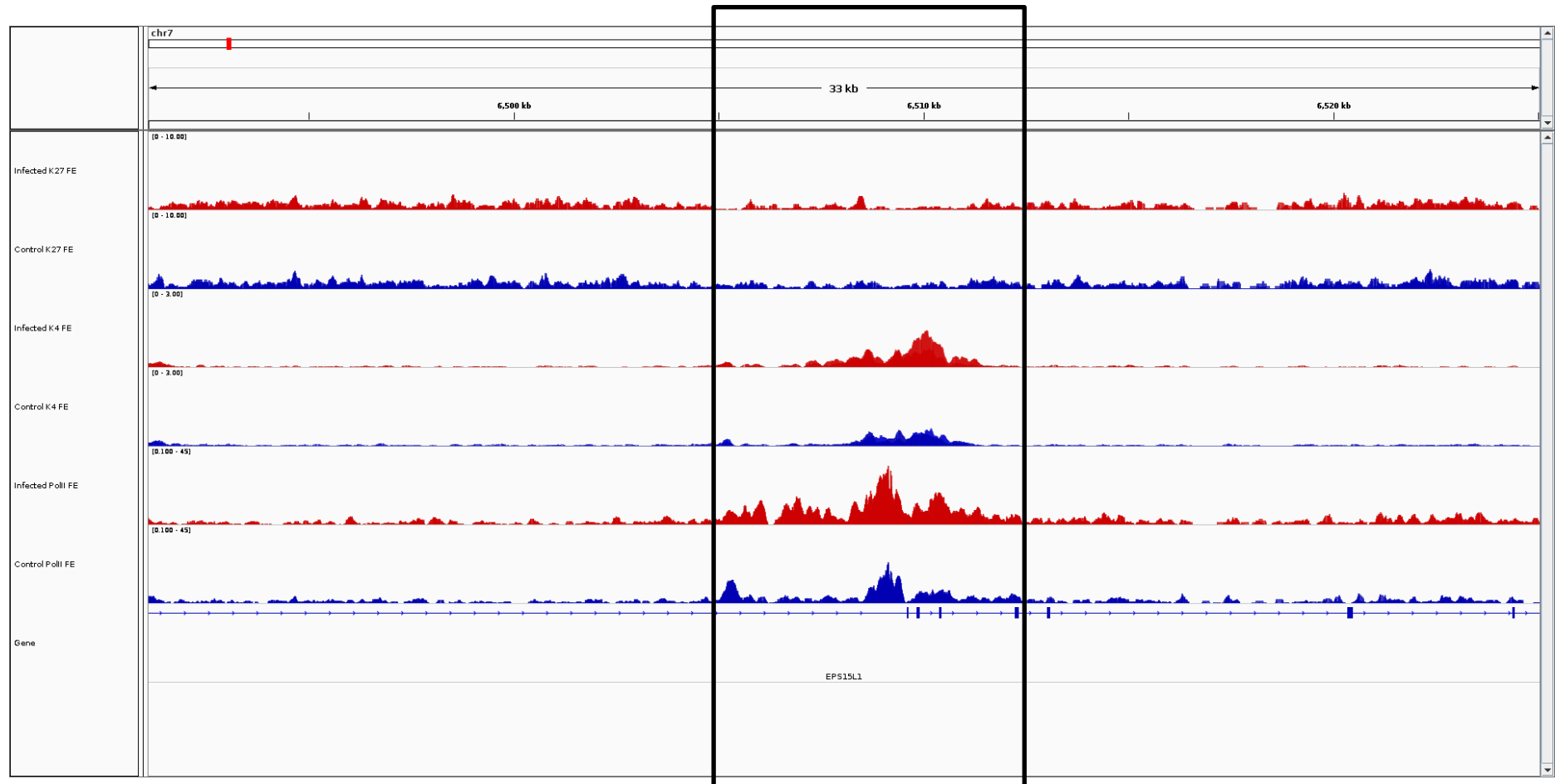
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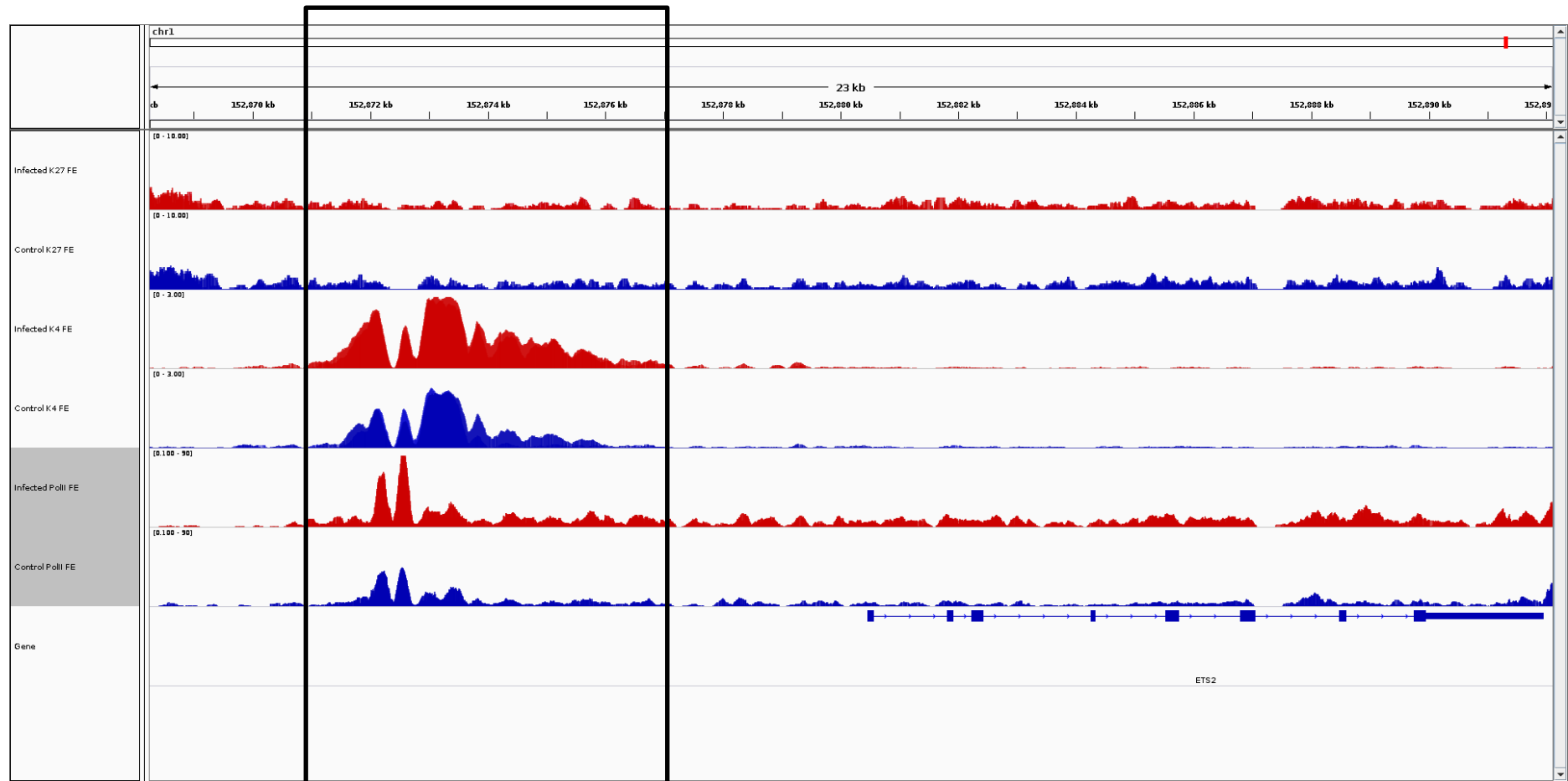
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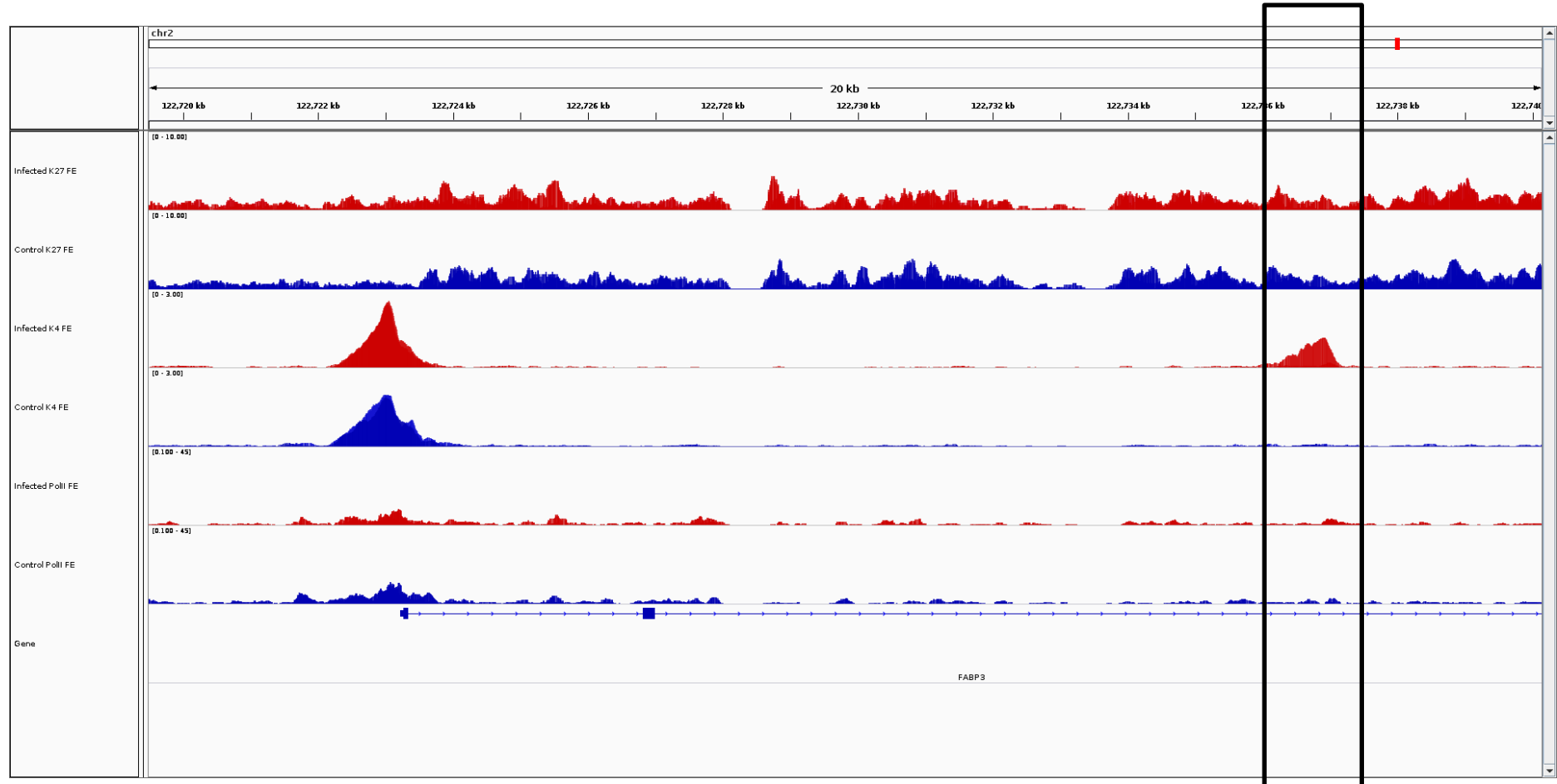
ENTPD1



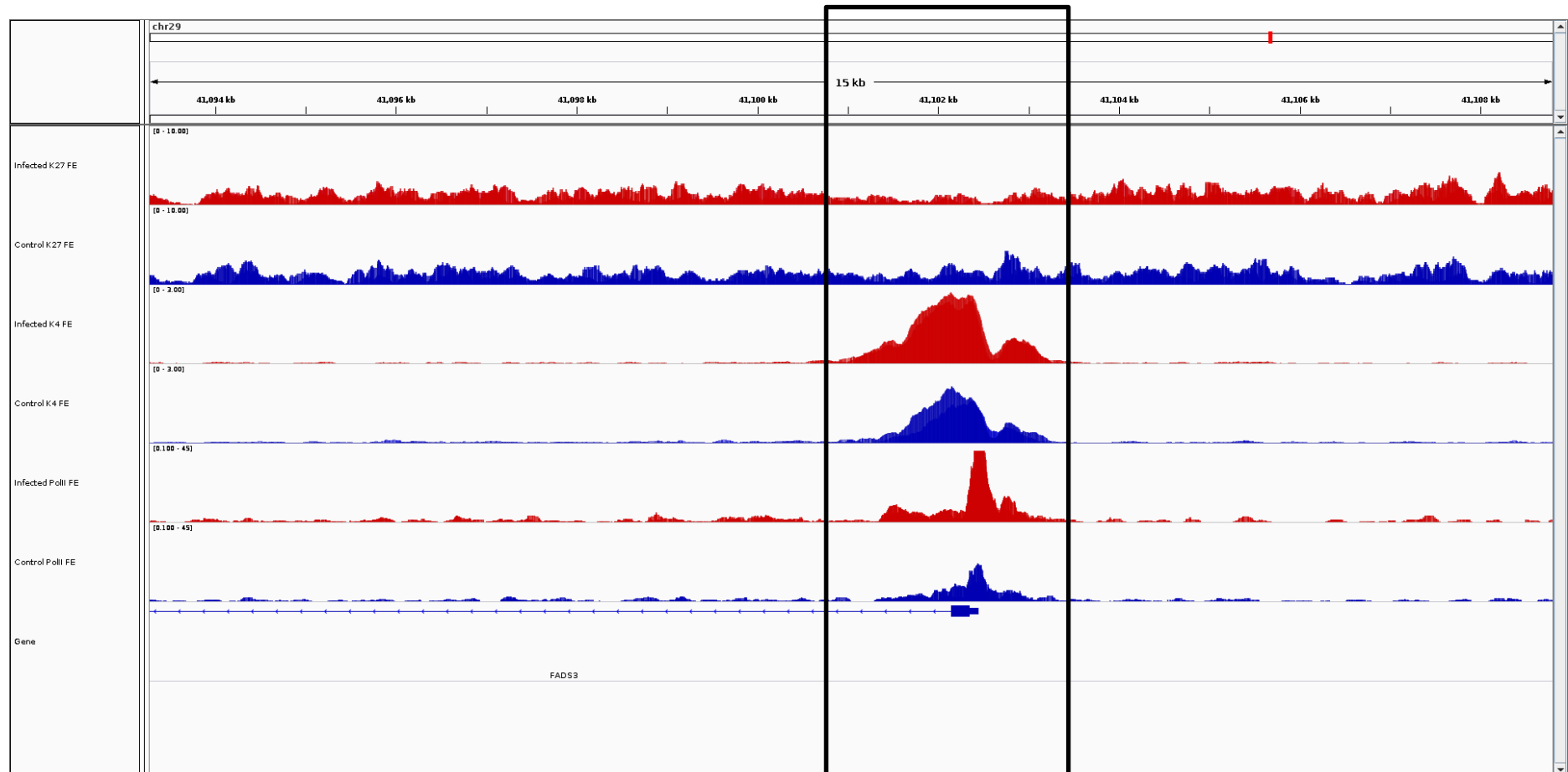
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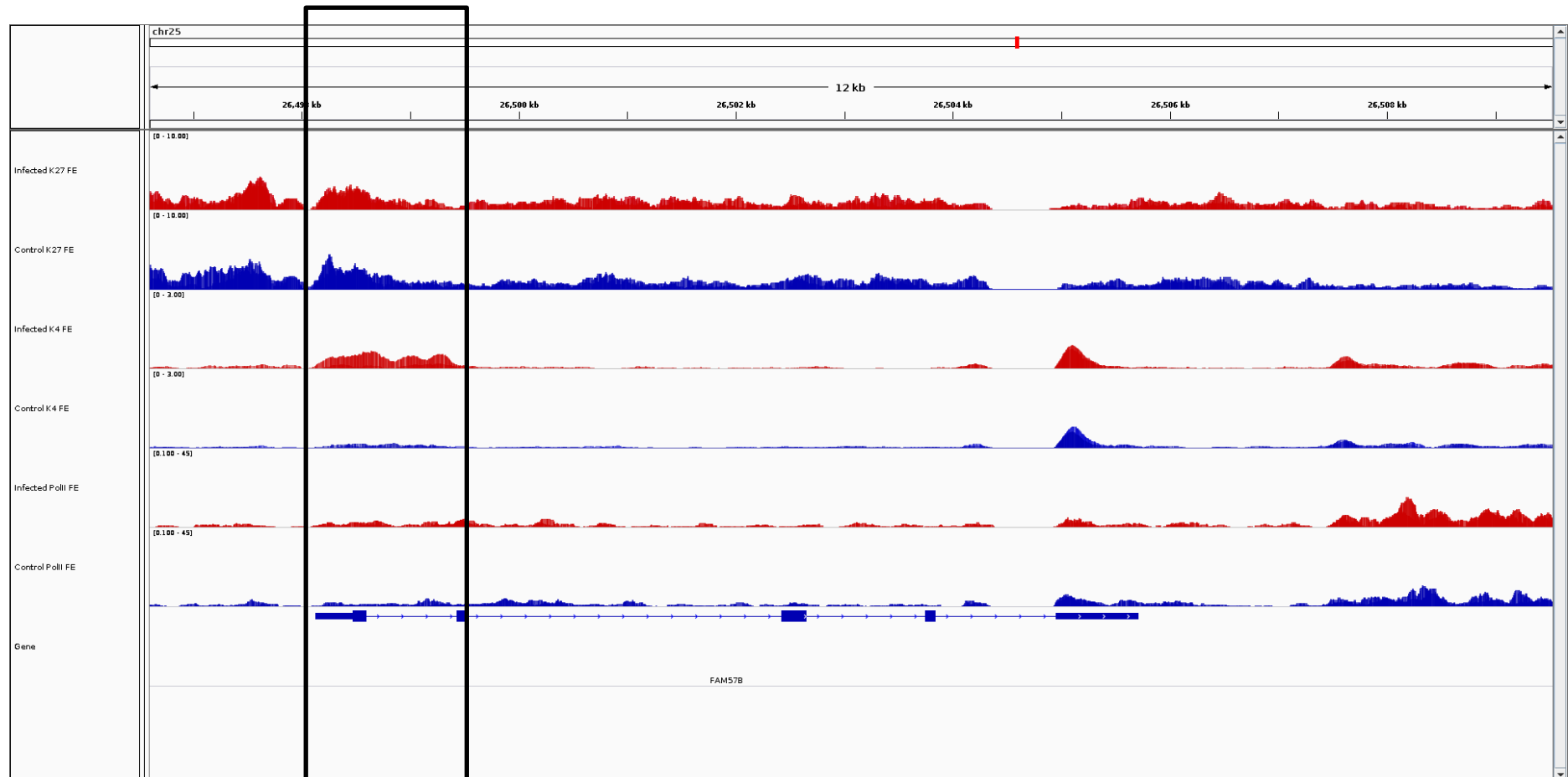
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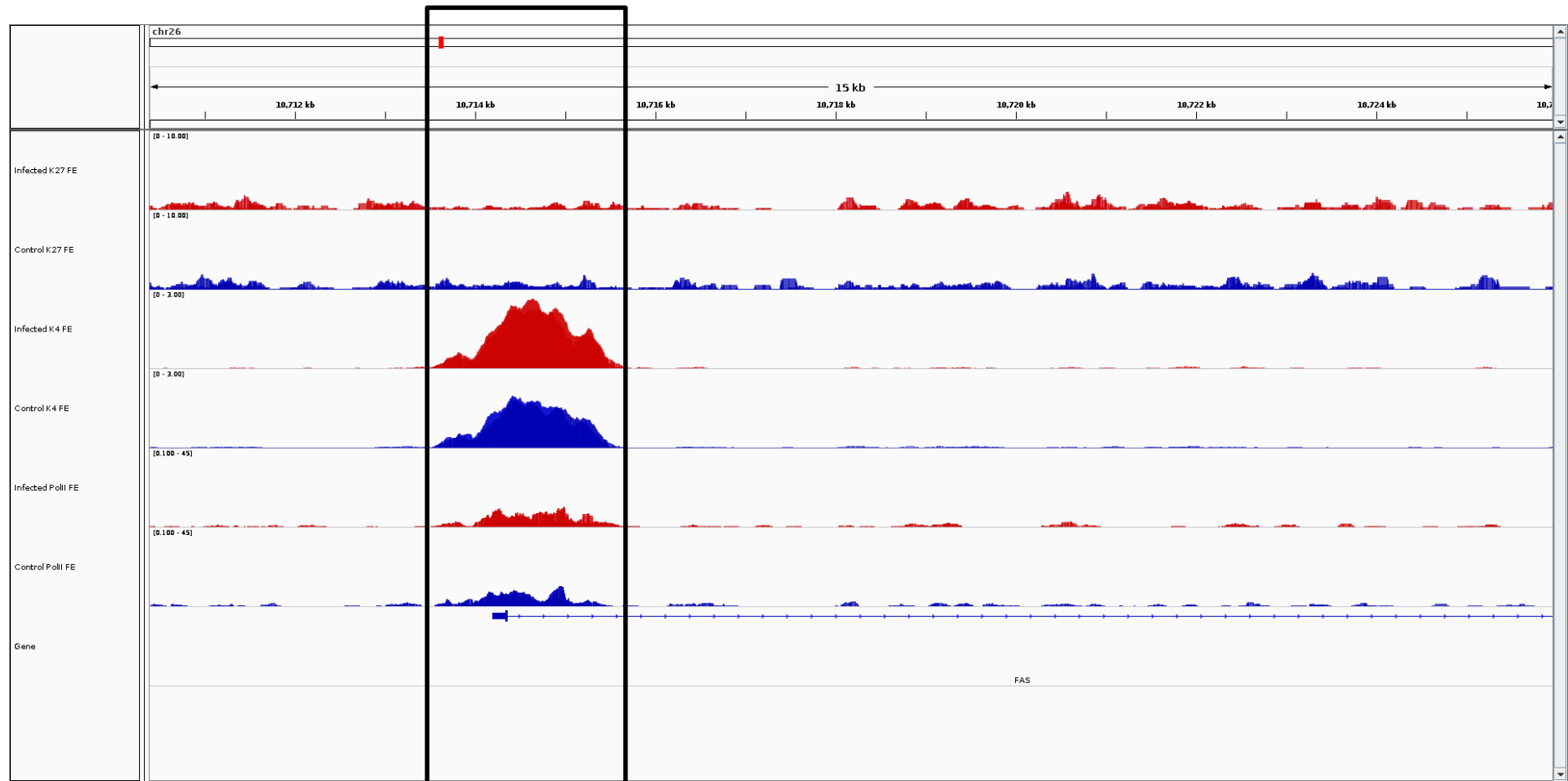
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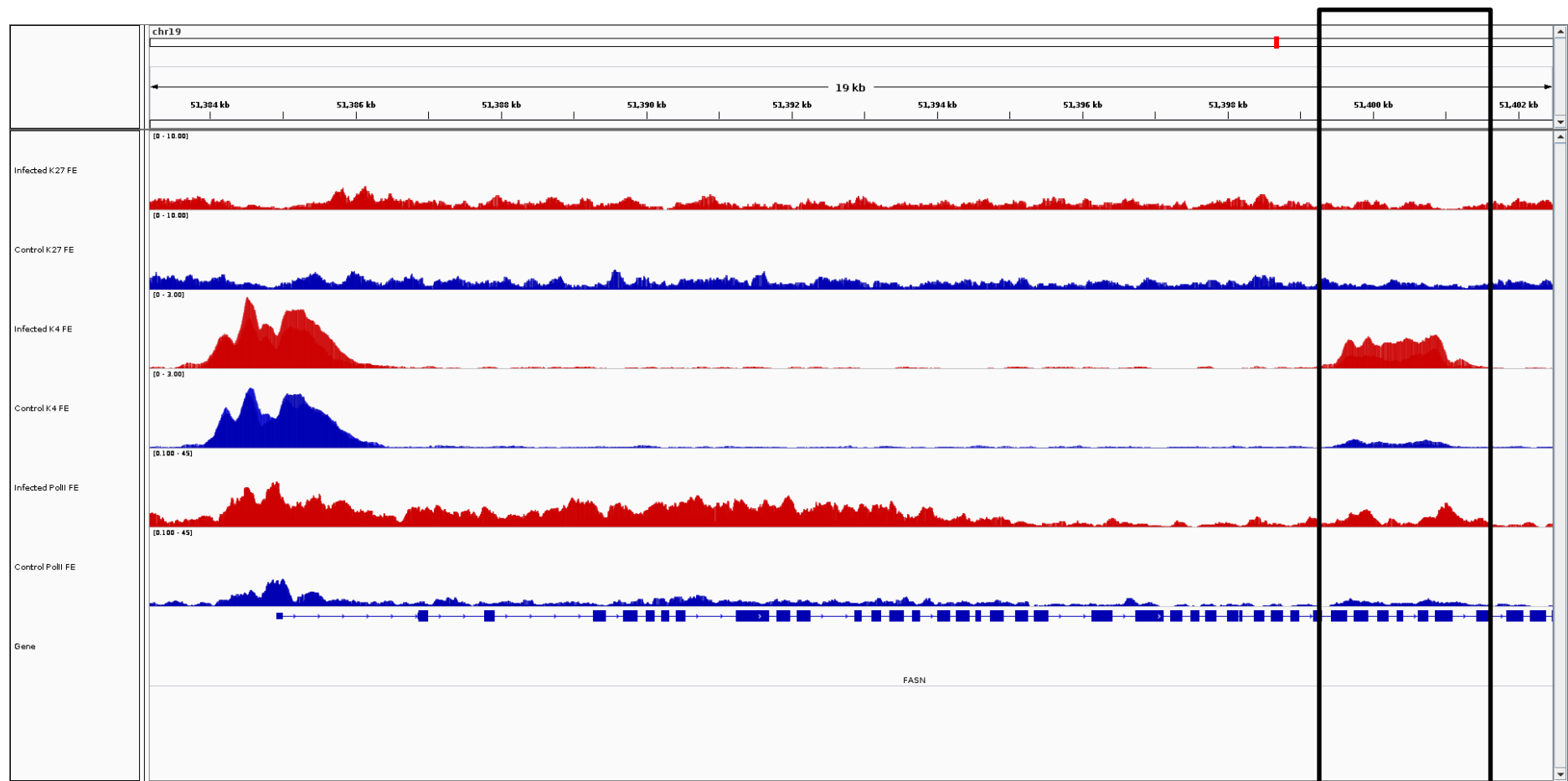
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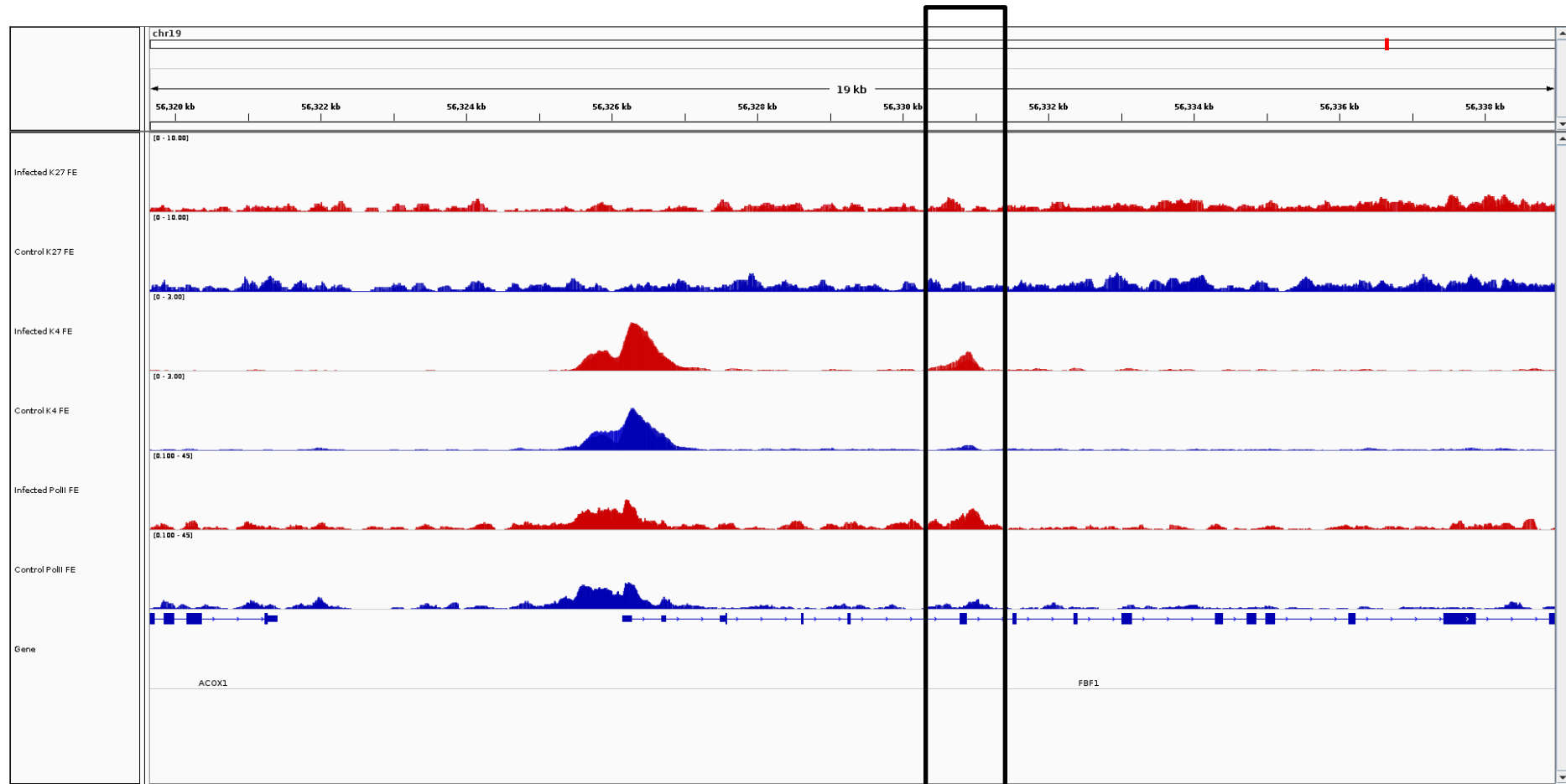
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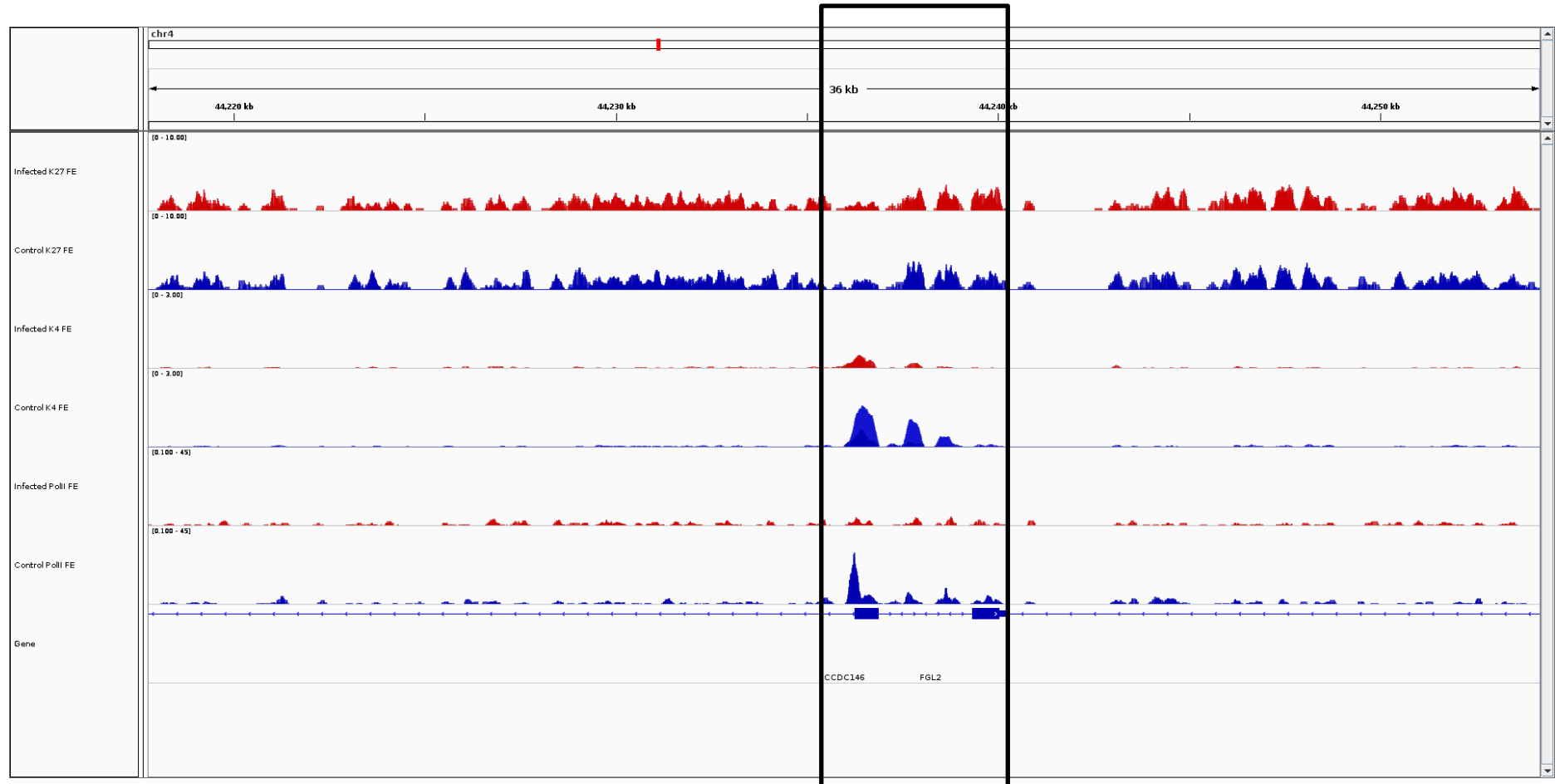
FAS



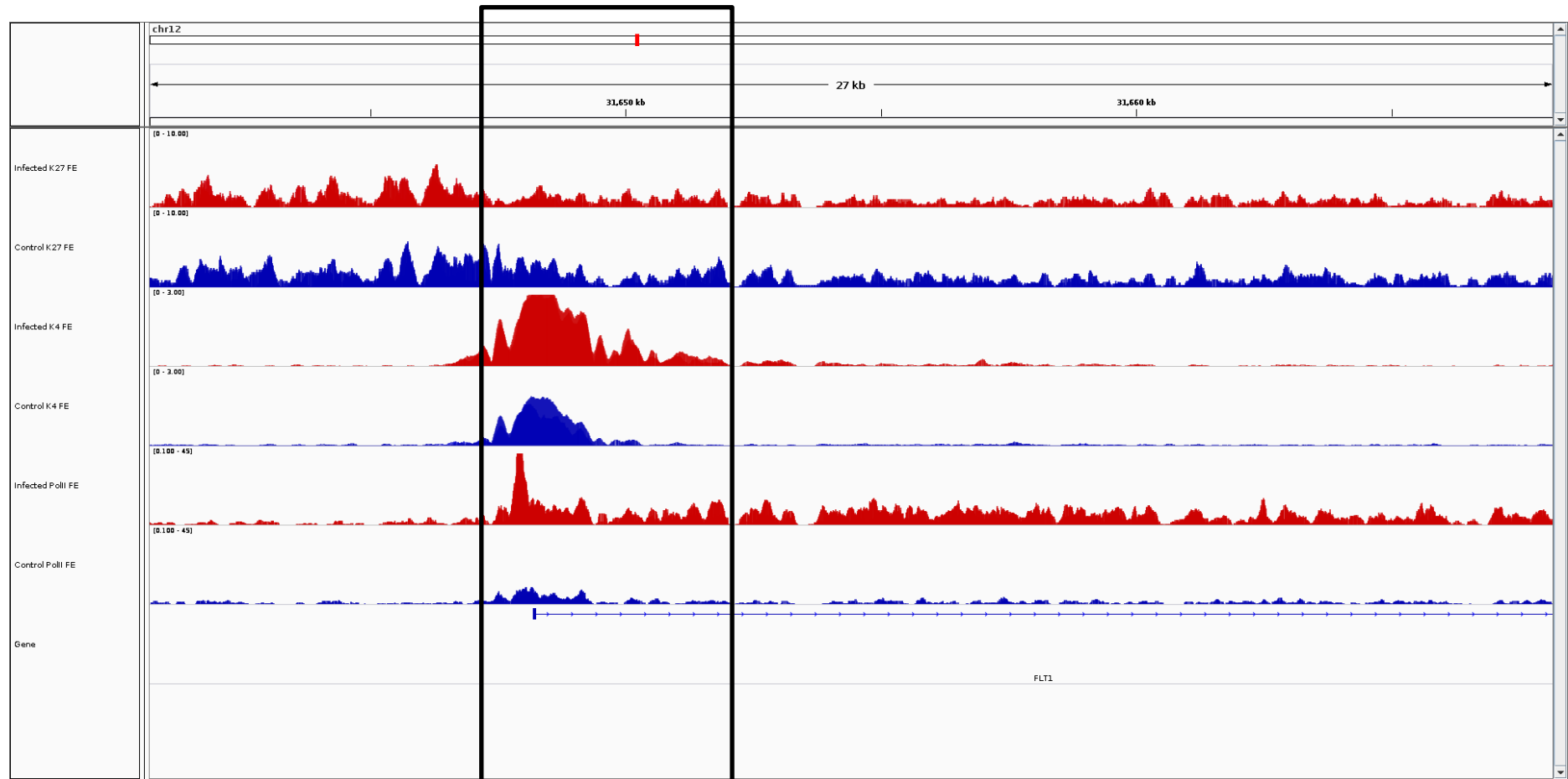
FASN



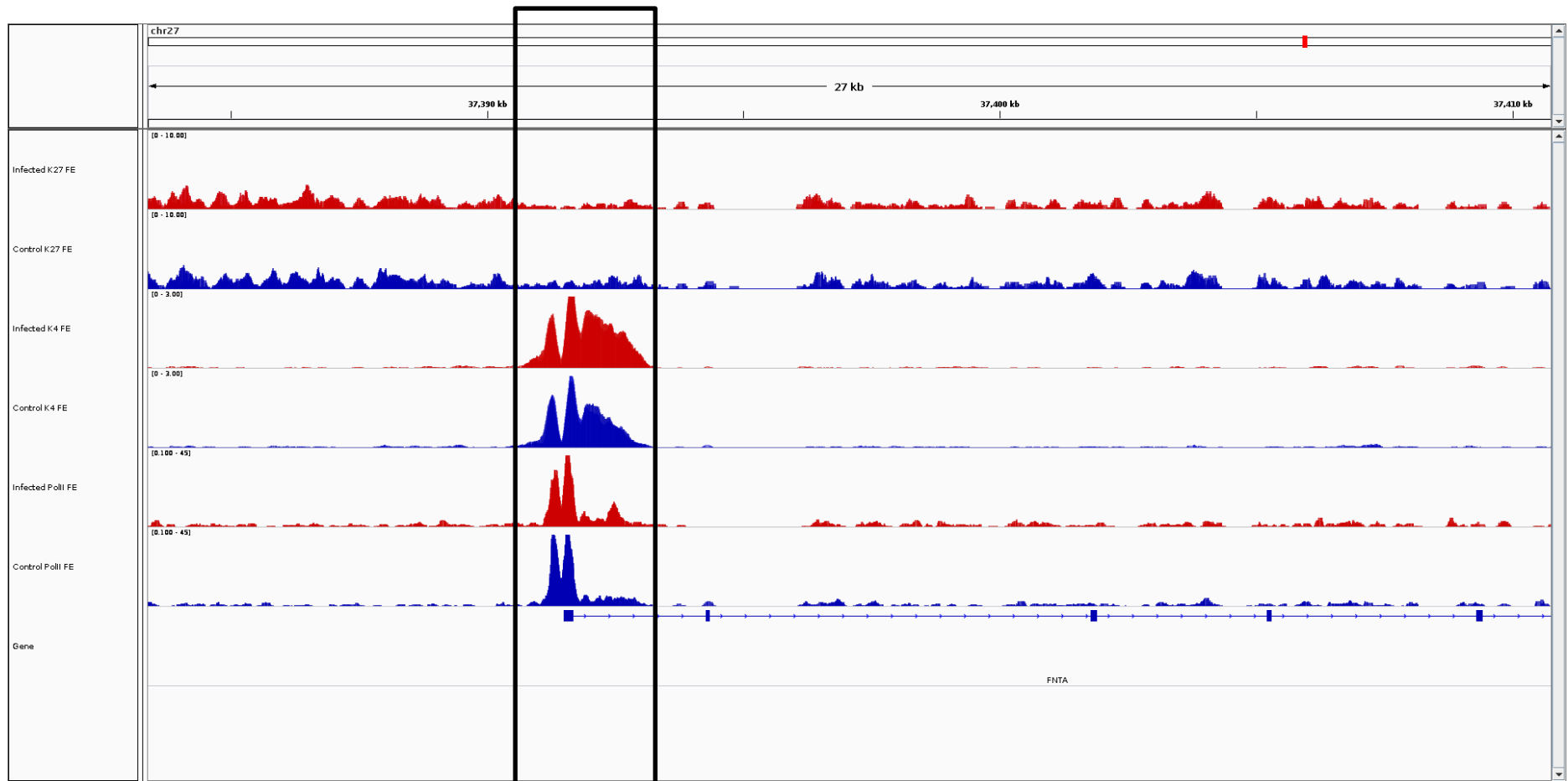
FBF1



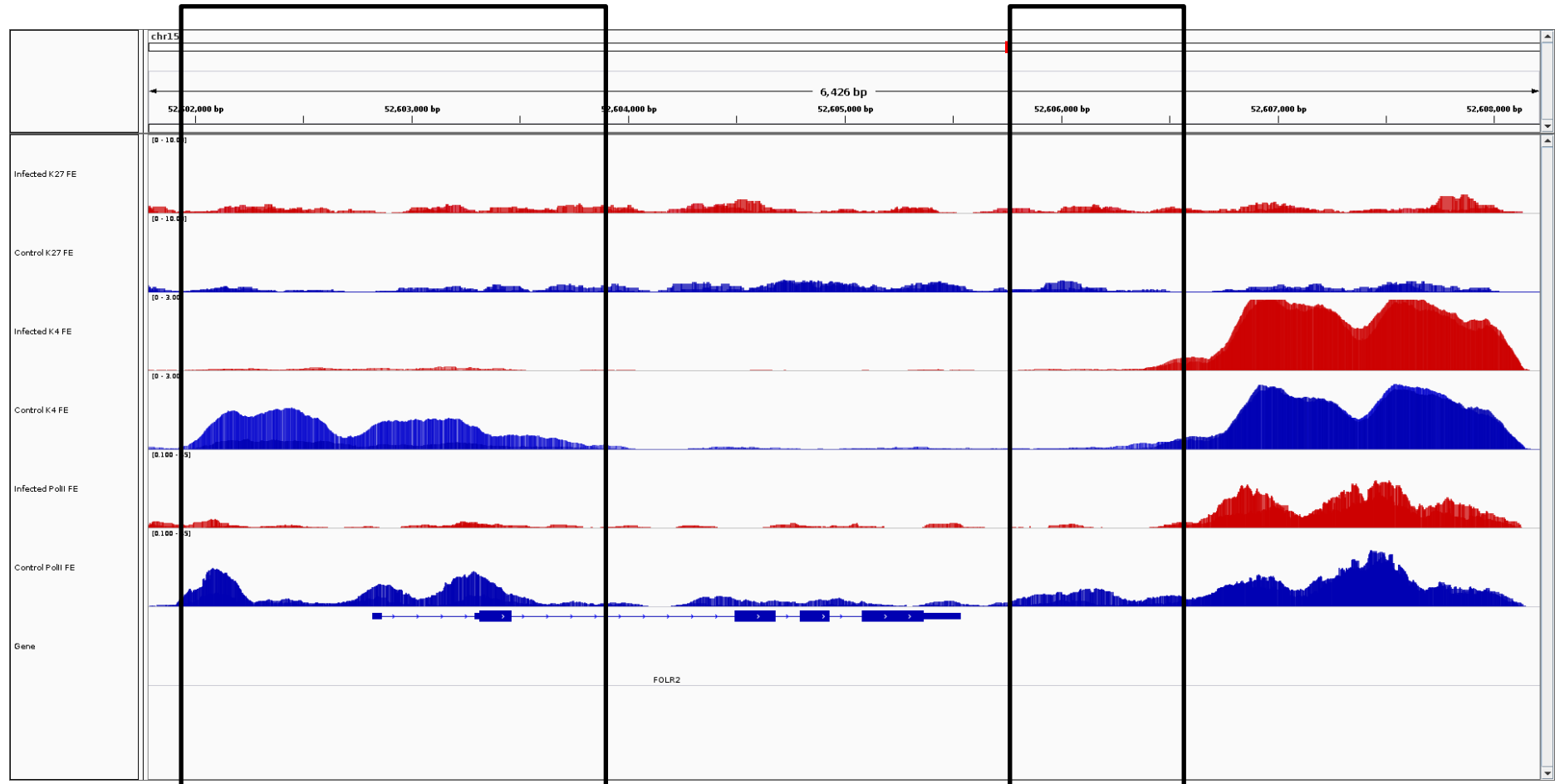
FGL2



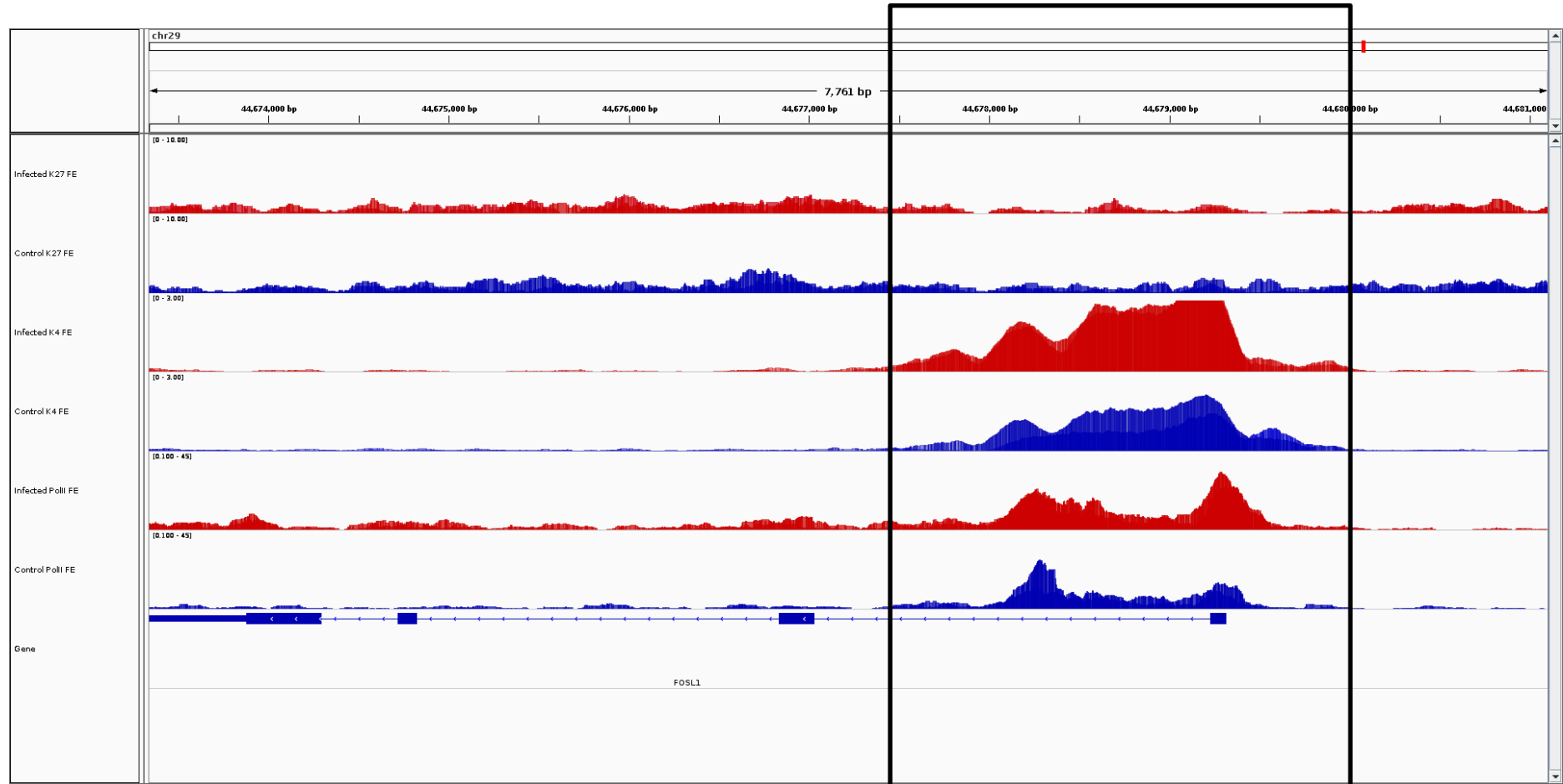
FLT1



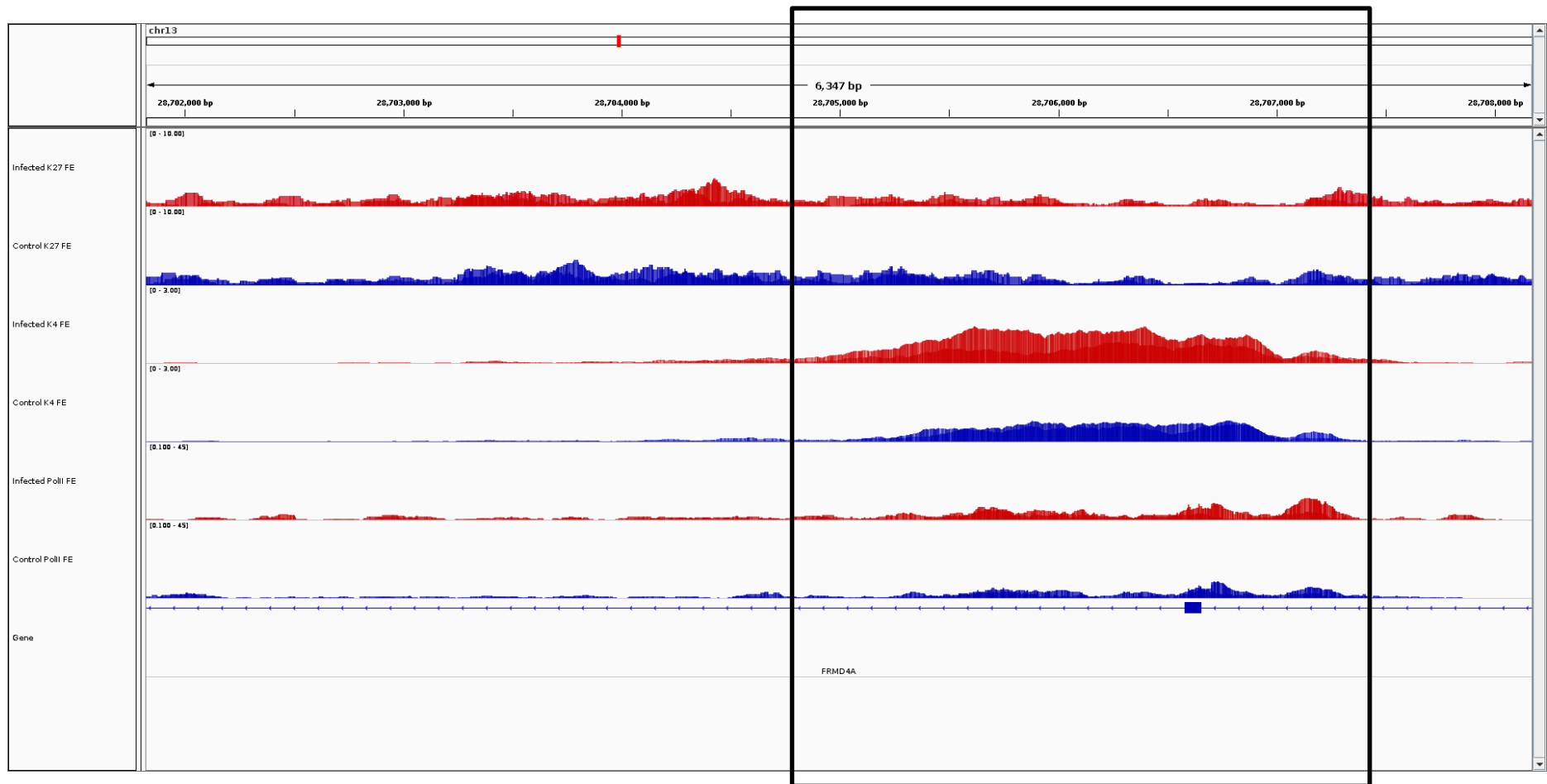
FNTA



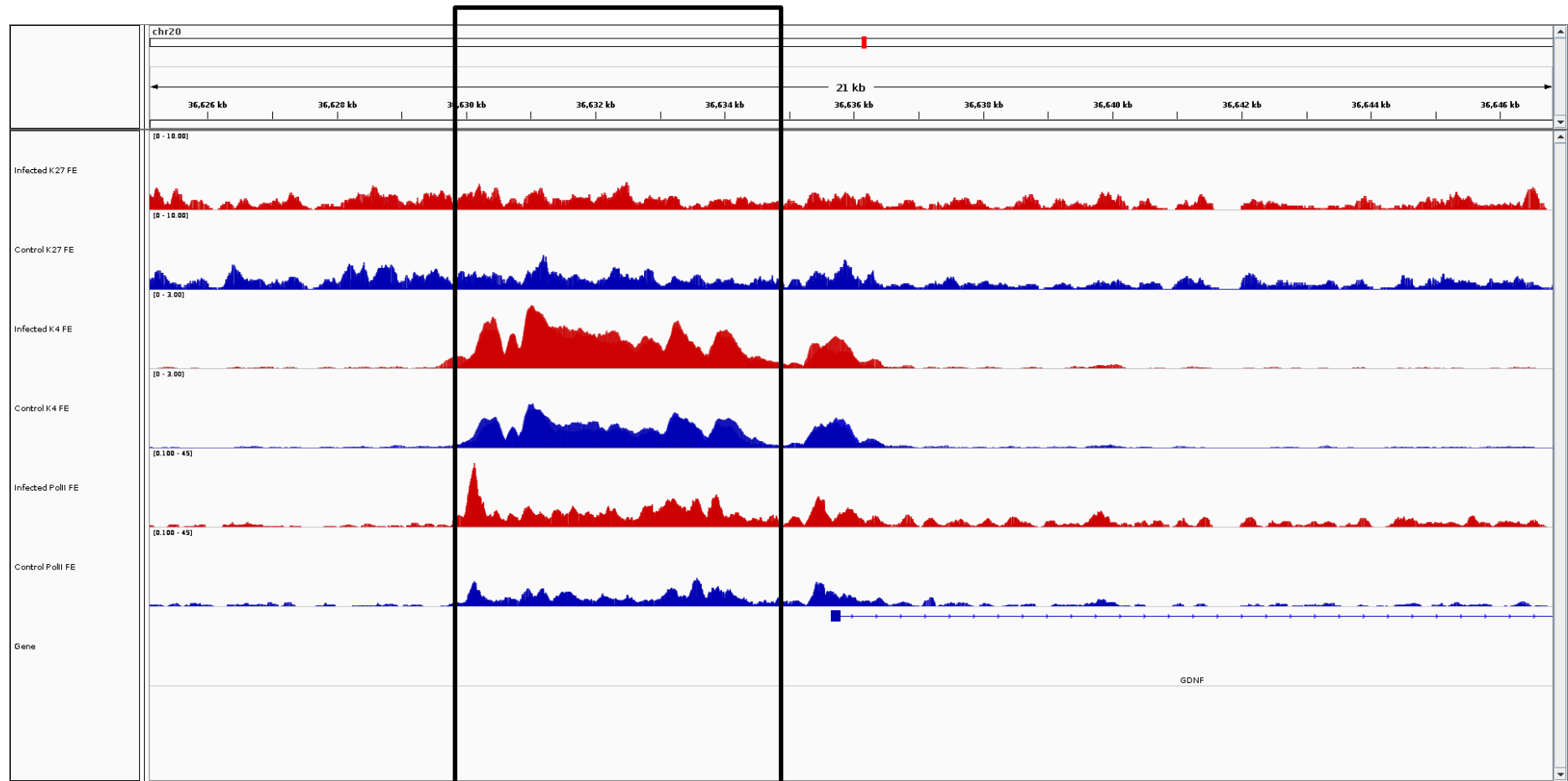
FOLR2



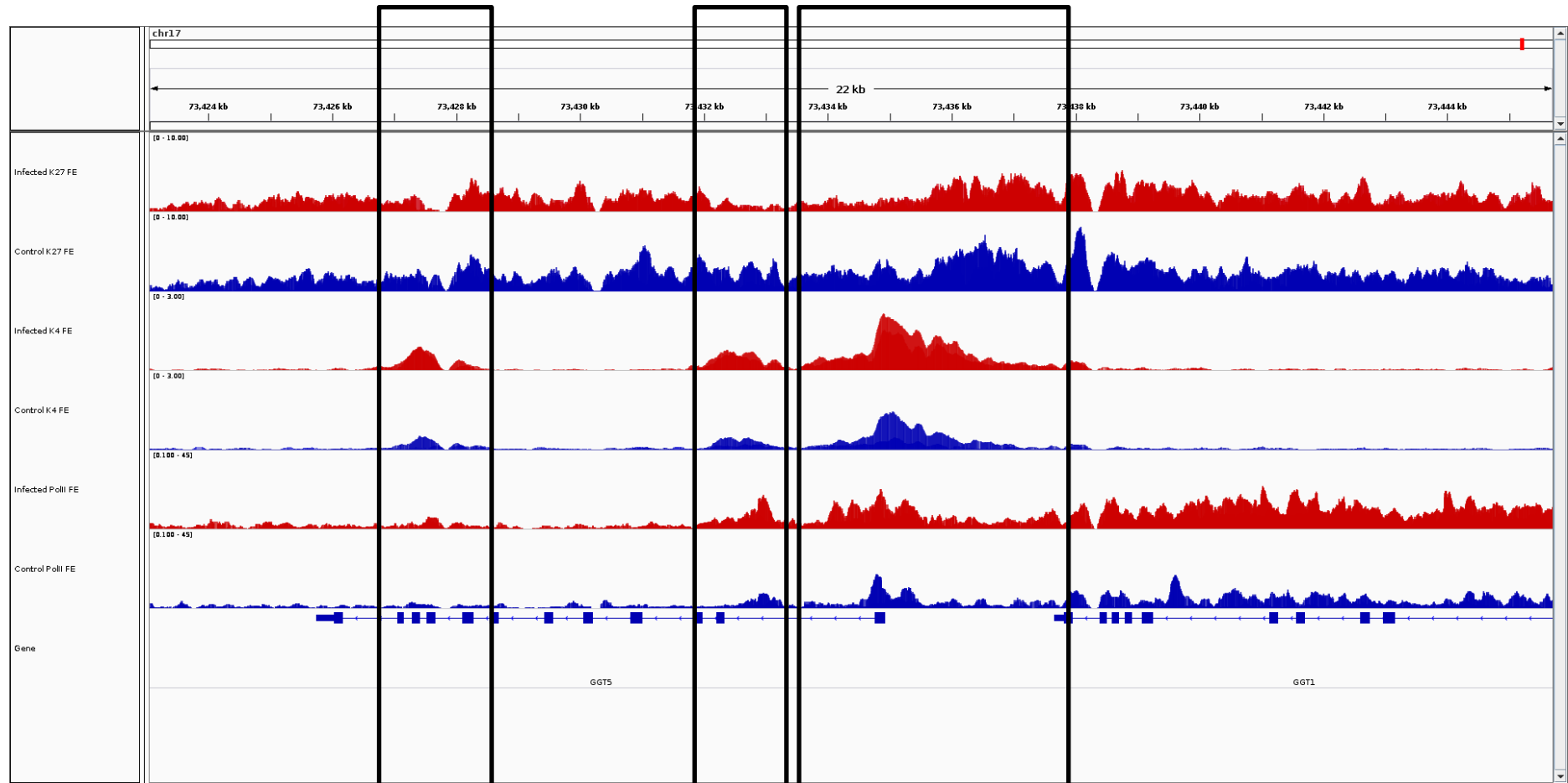
FOSL1



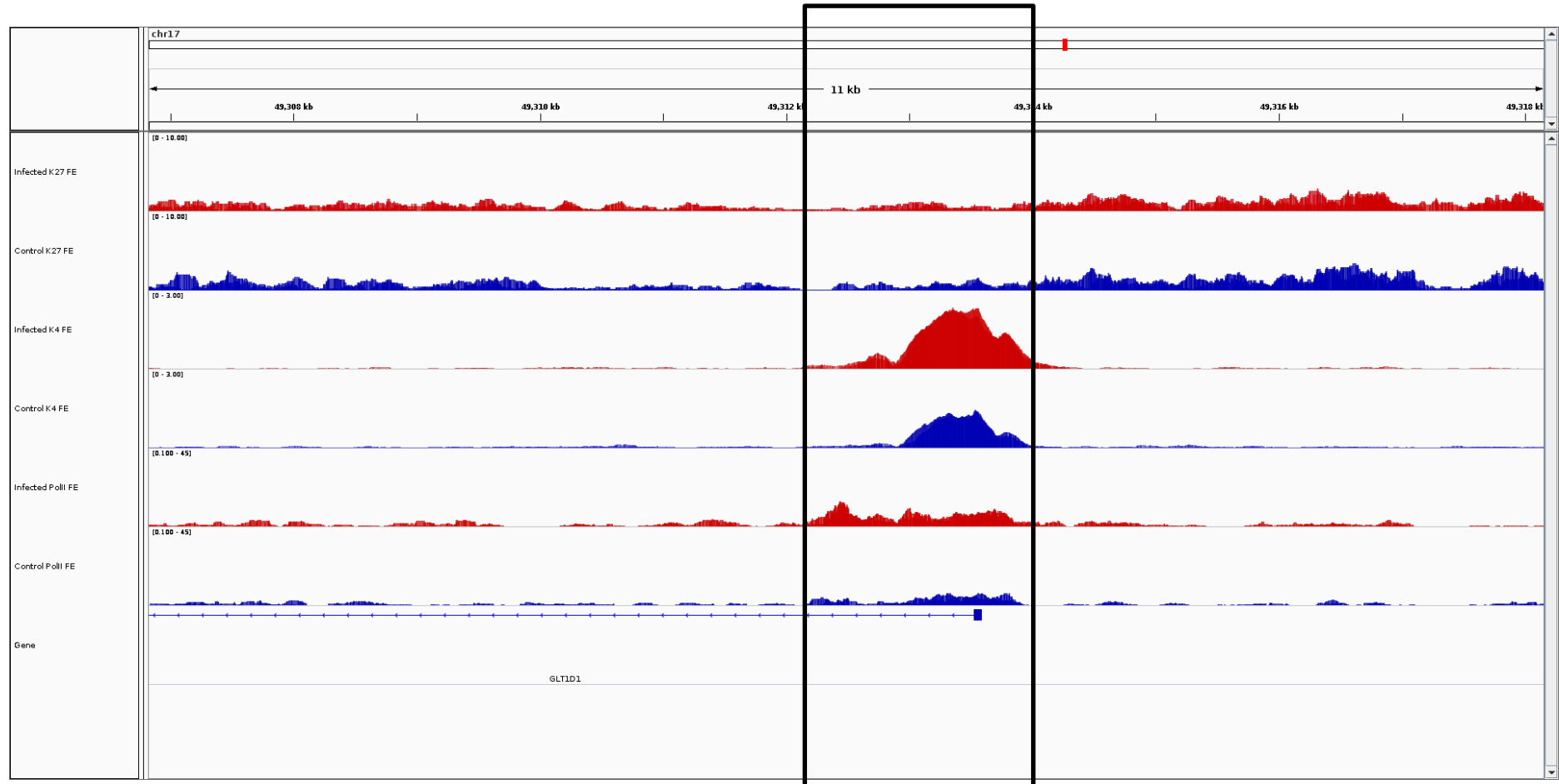
FRMD4A



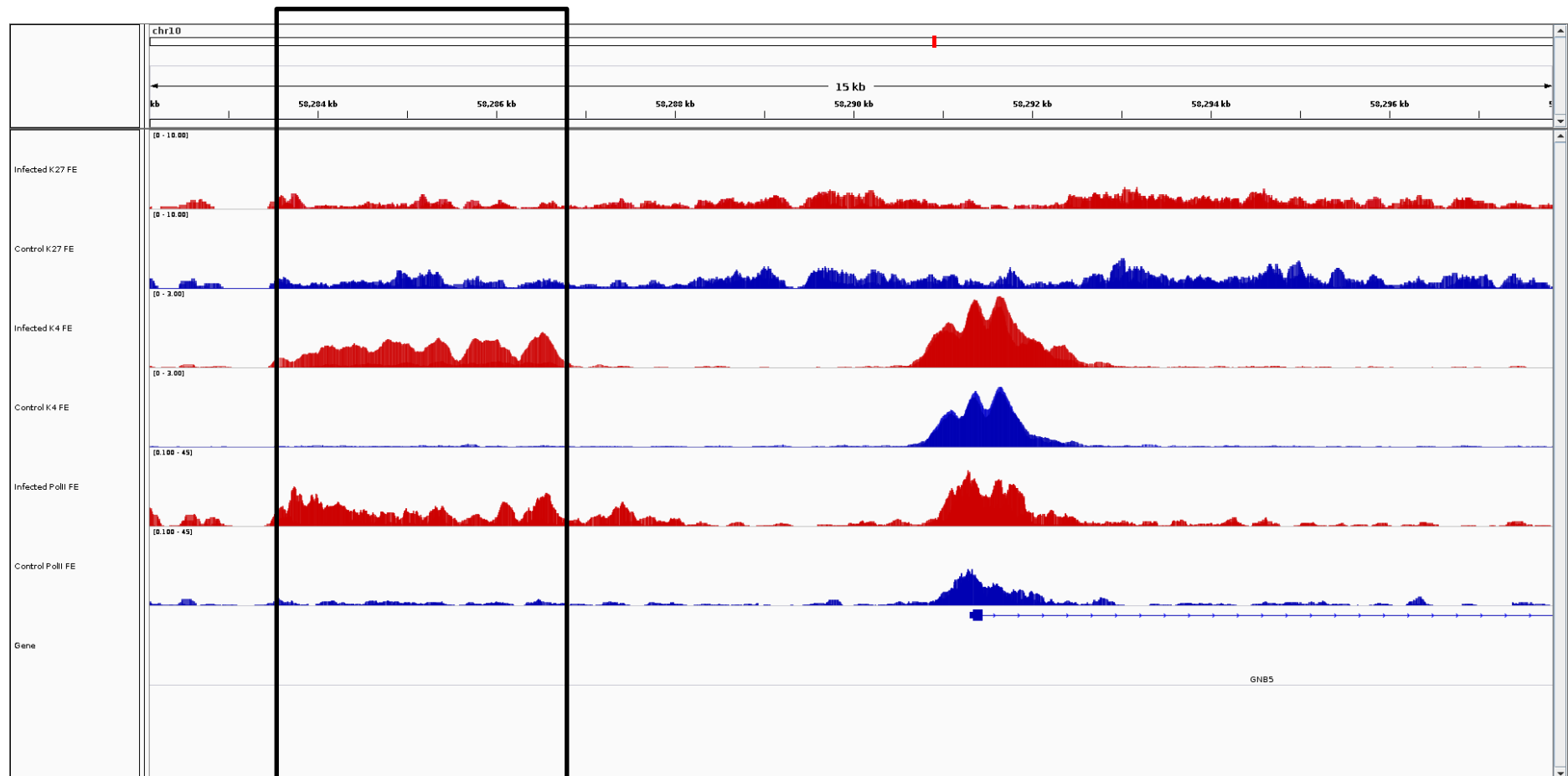
GDNF



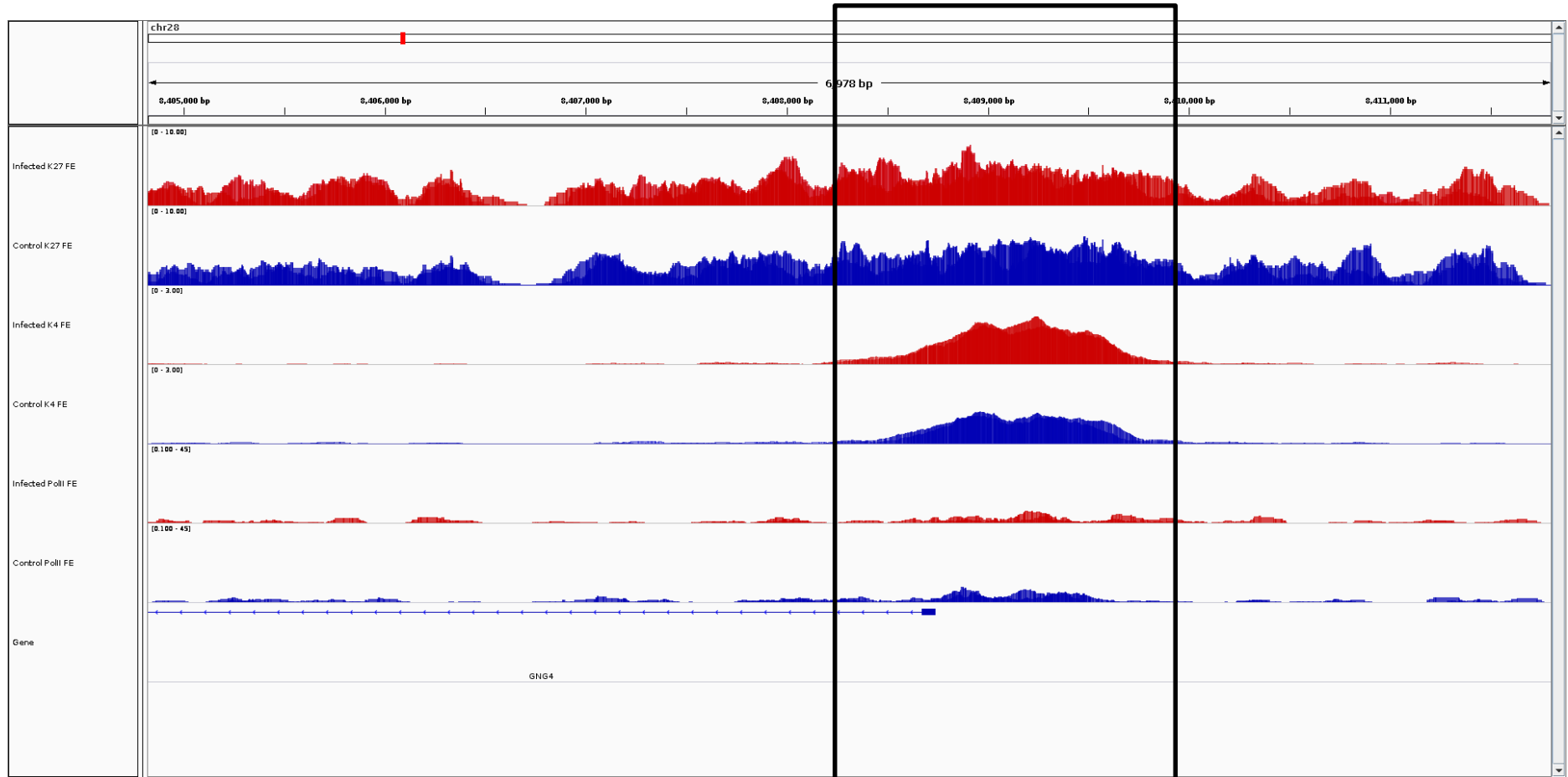
GGT5, GGT1



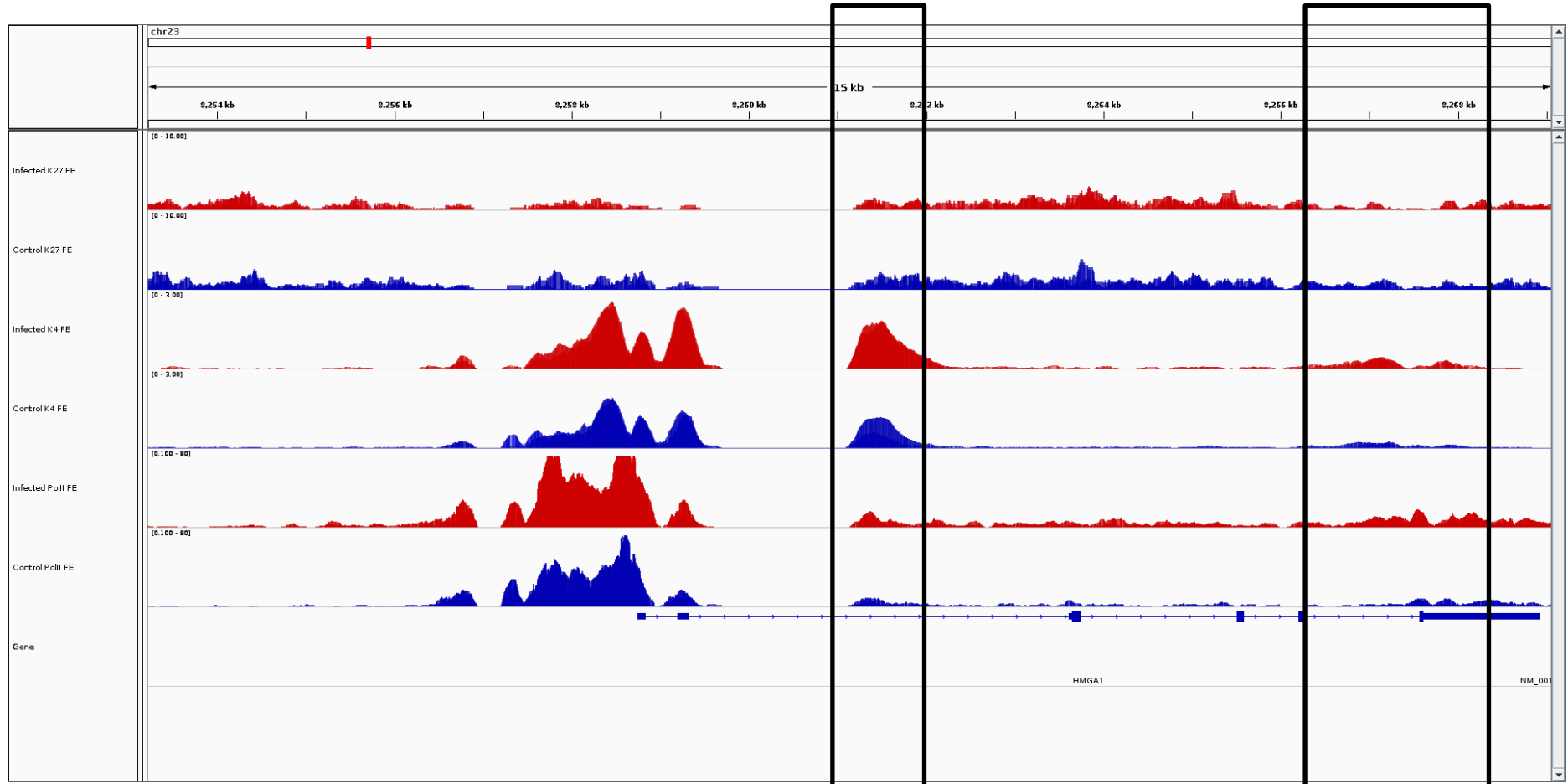
GLT1D1



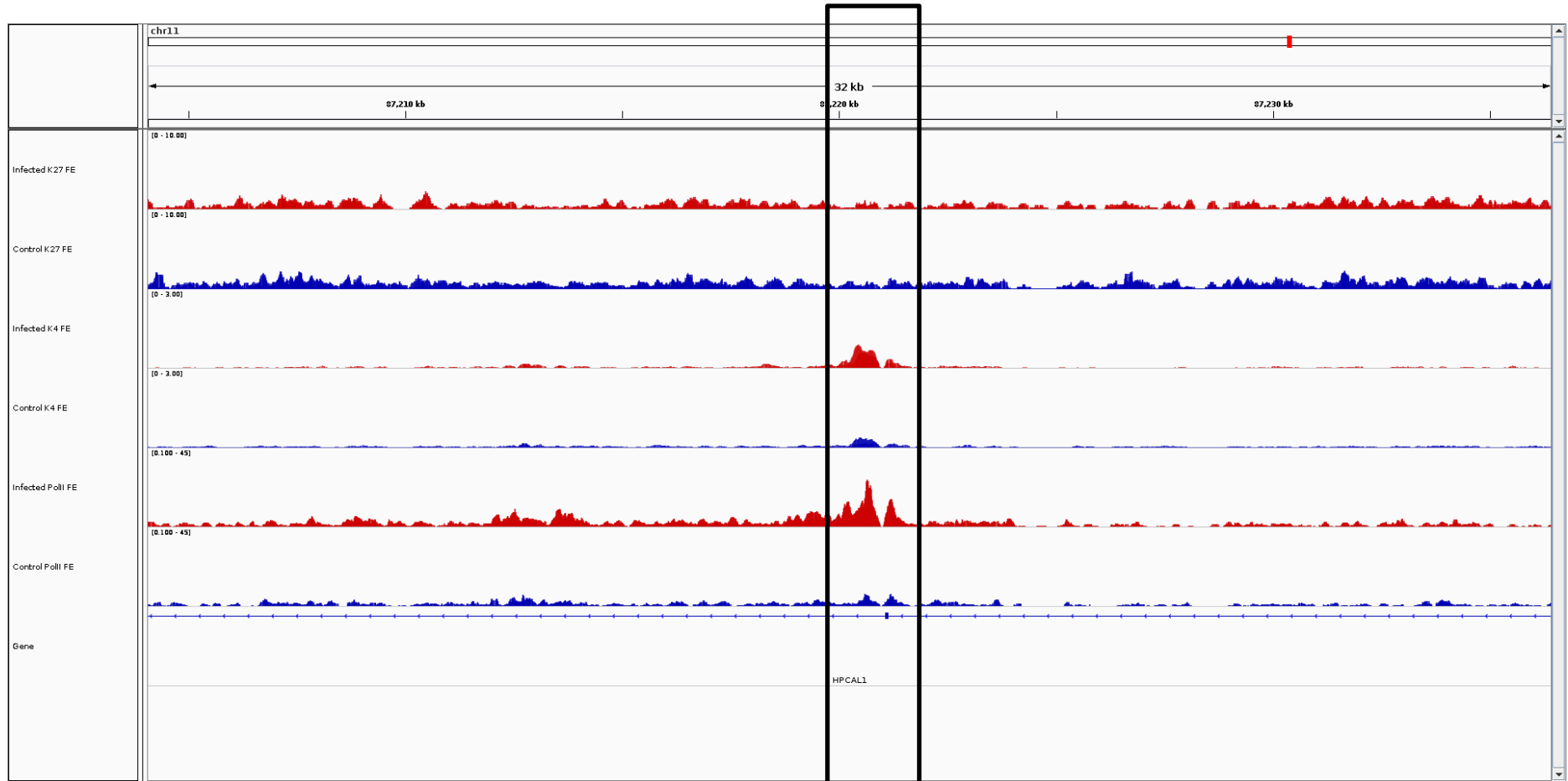
GNB5



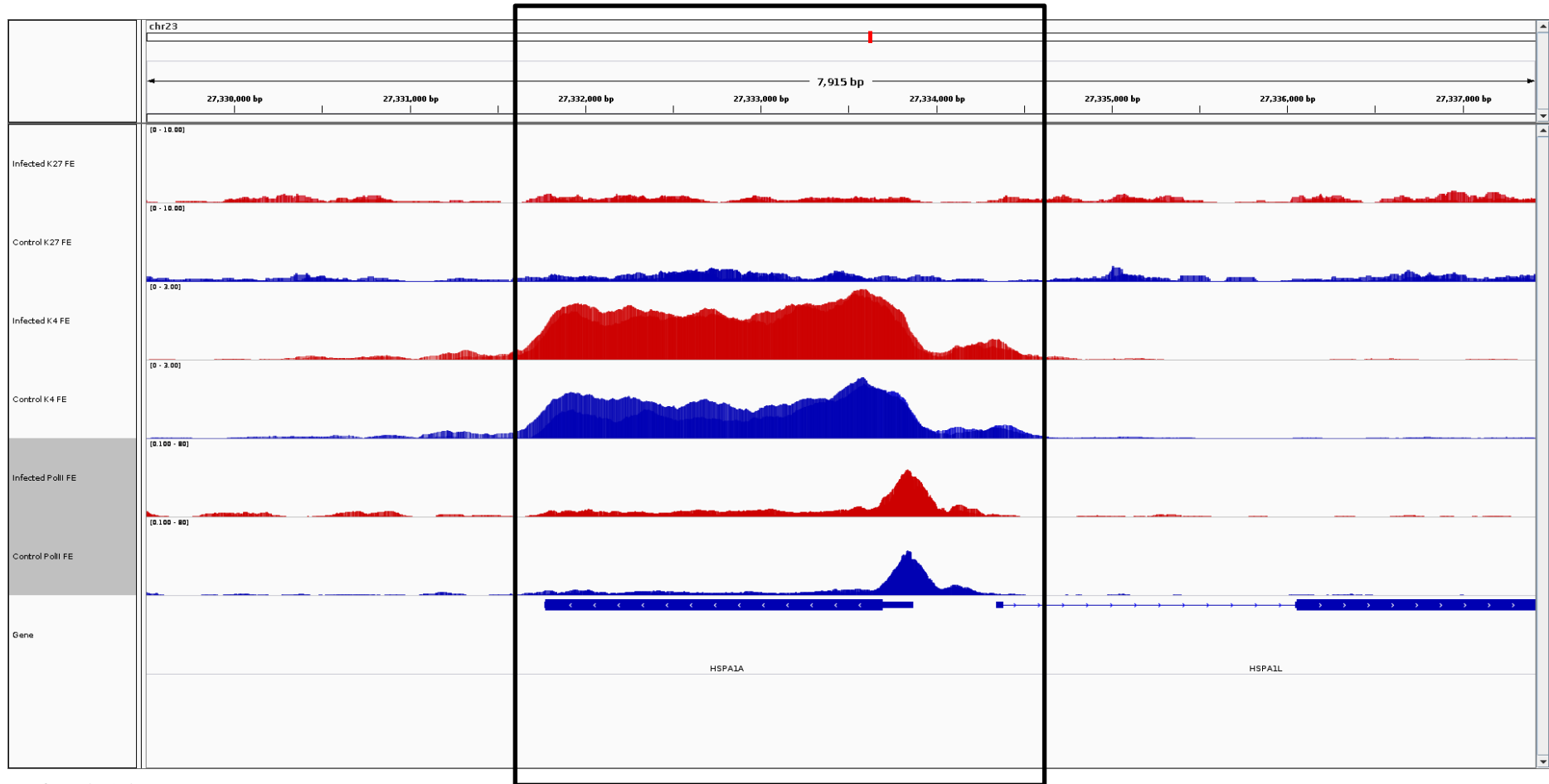
GNG4



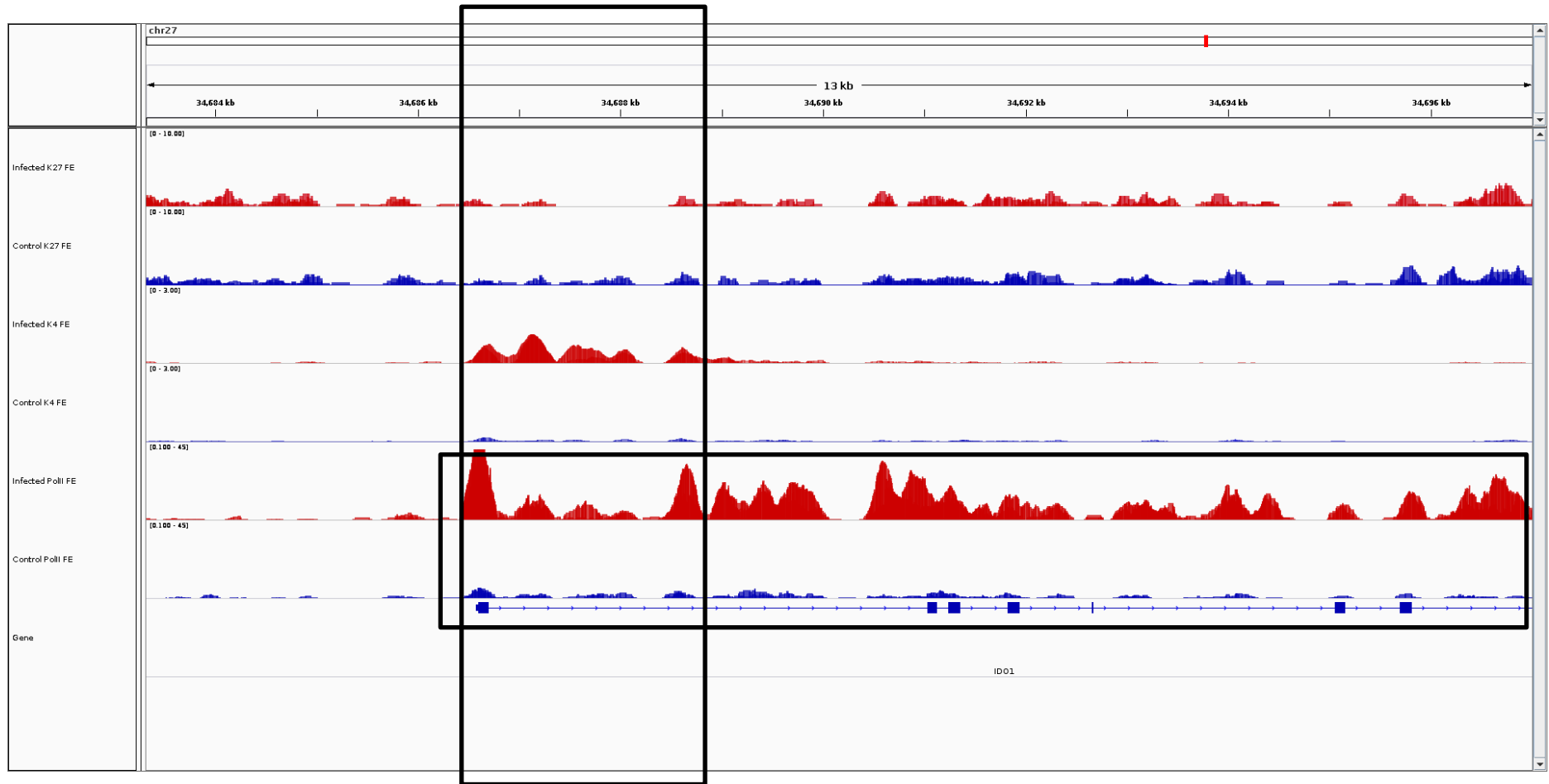
HMGAI



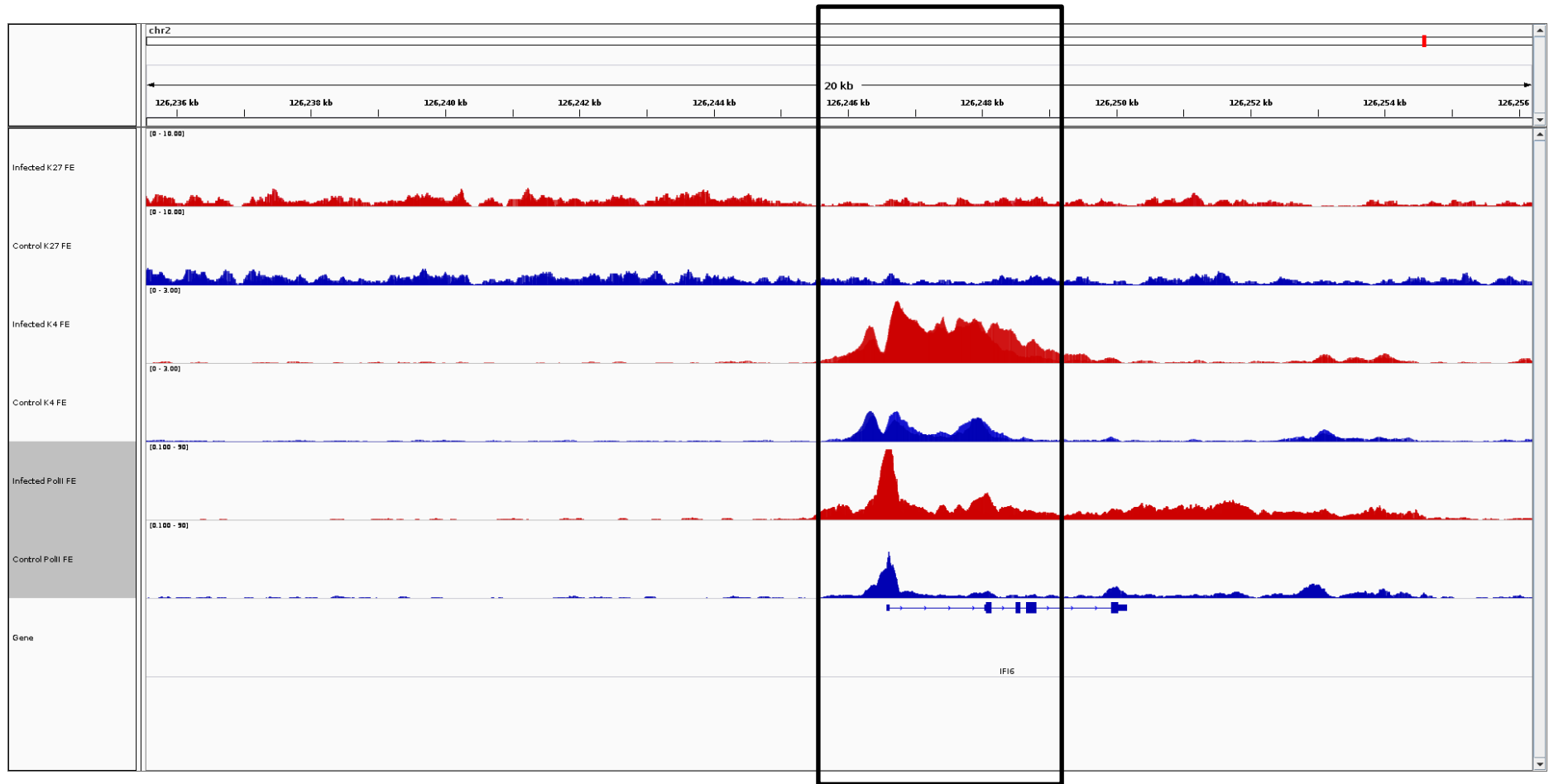
HPCAL1



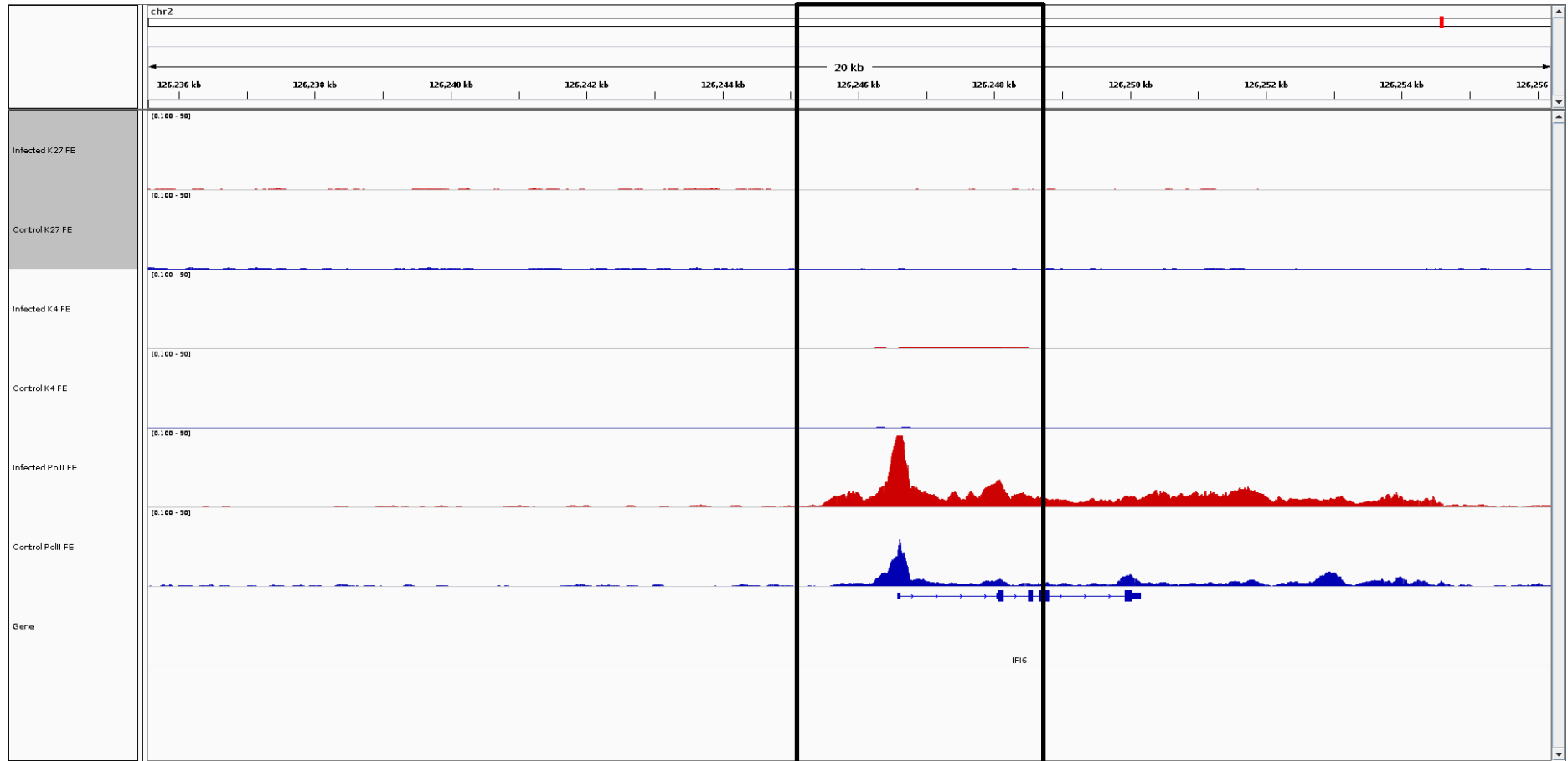
HSPA1A



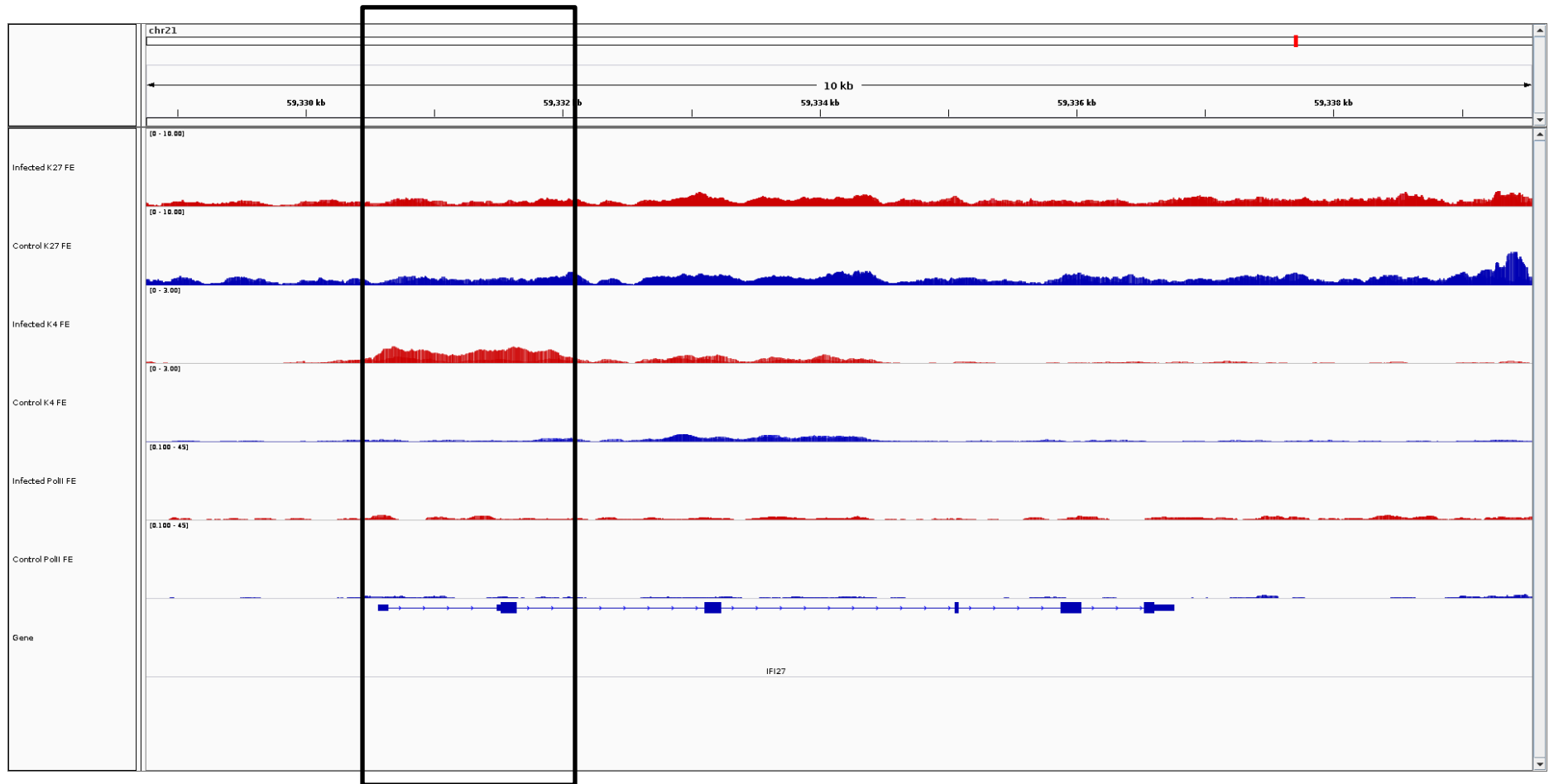
IDO1



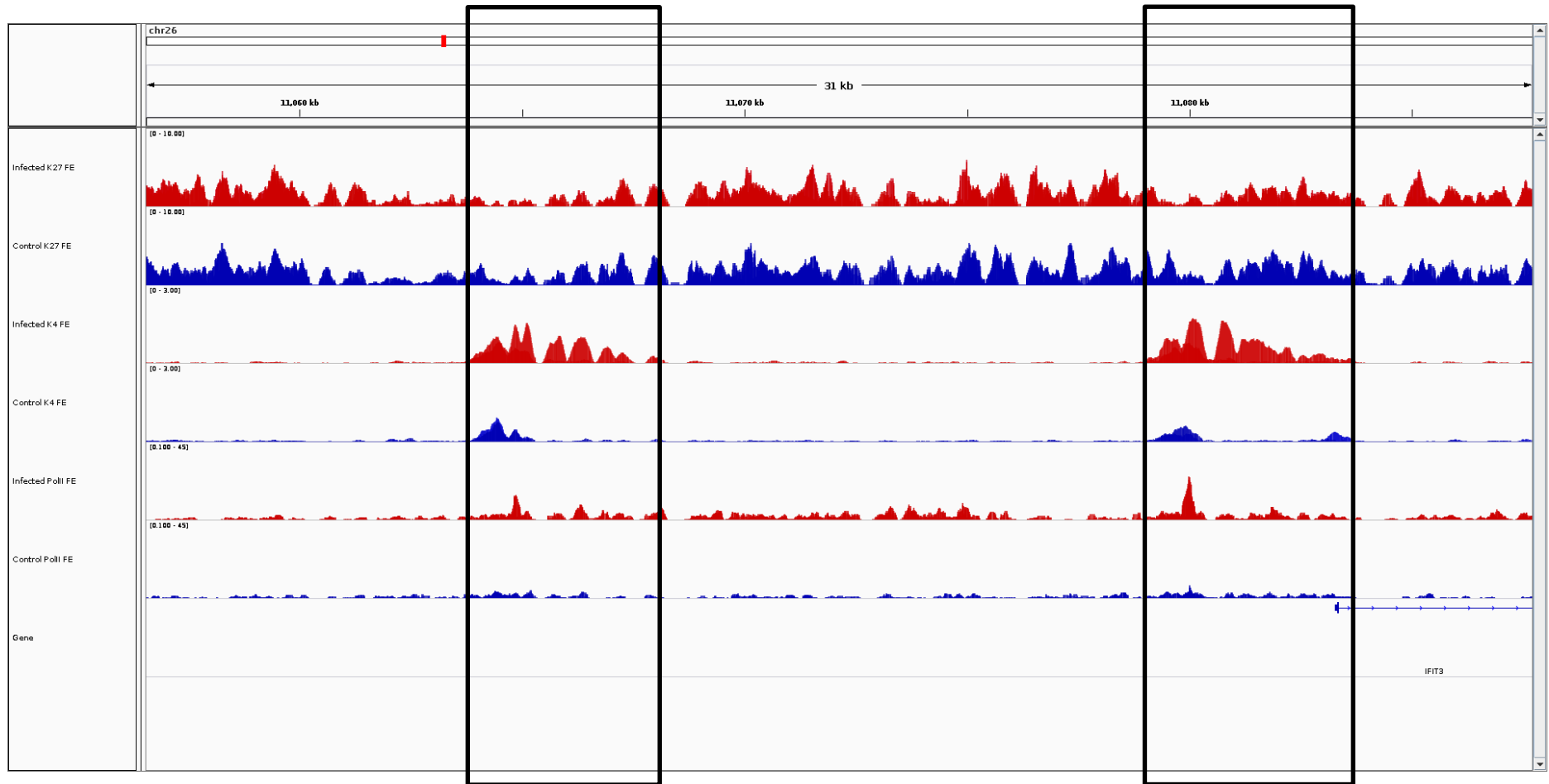
IFI6



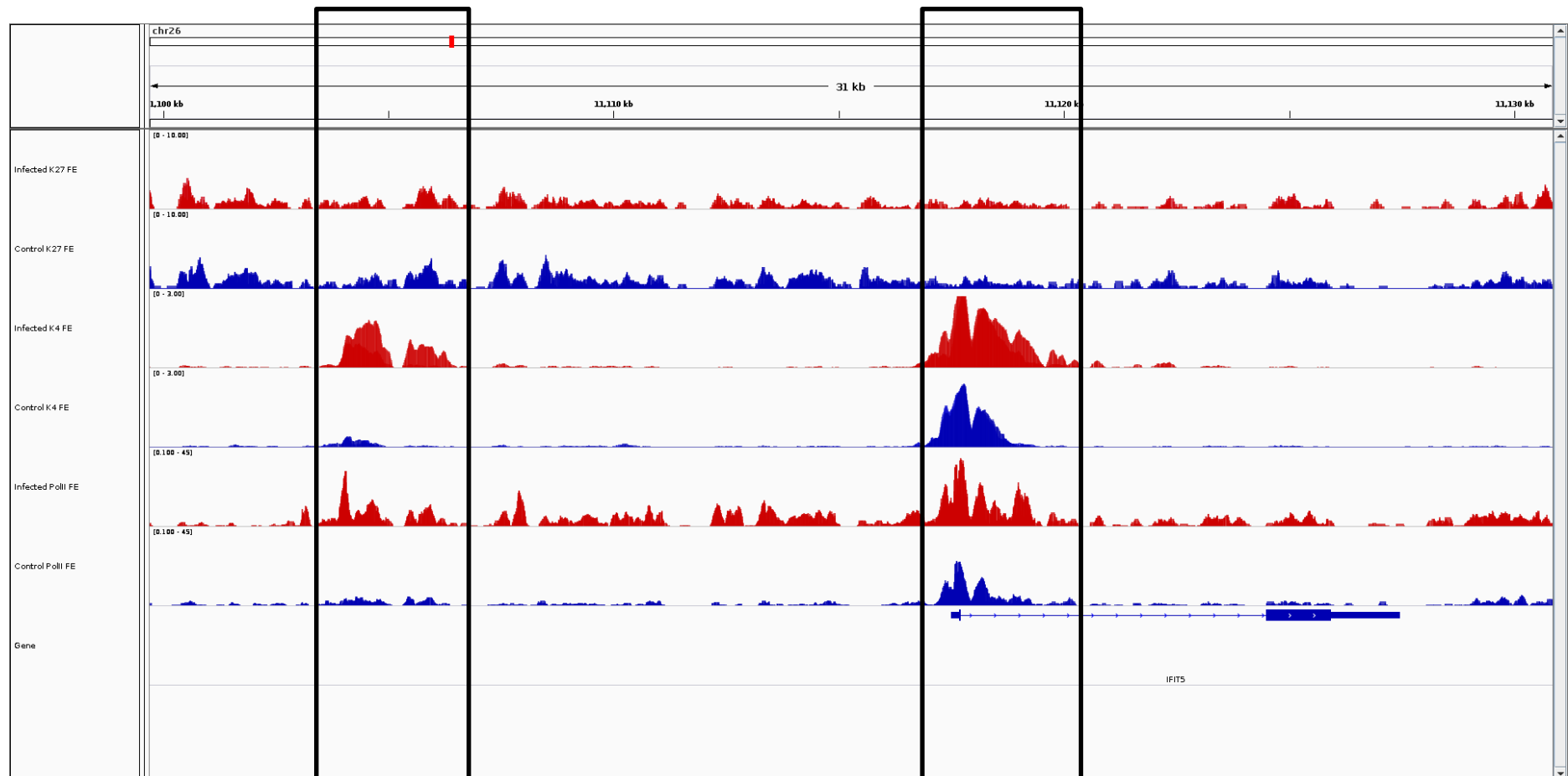
IFI6



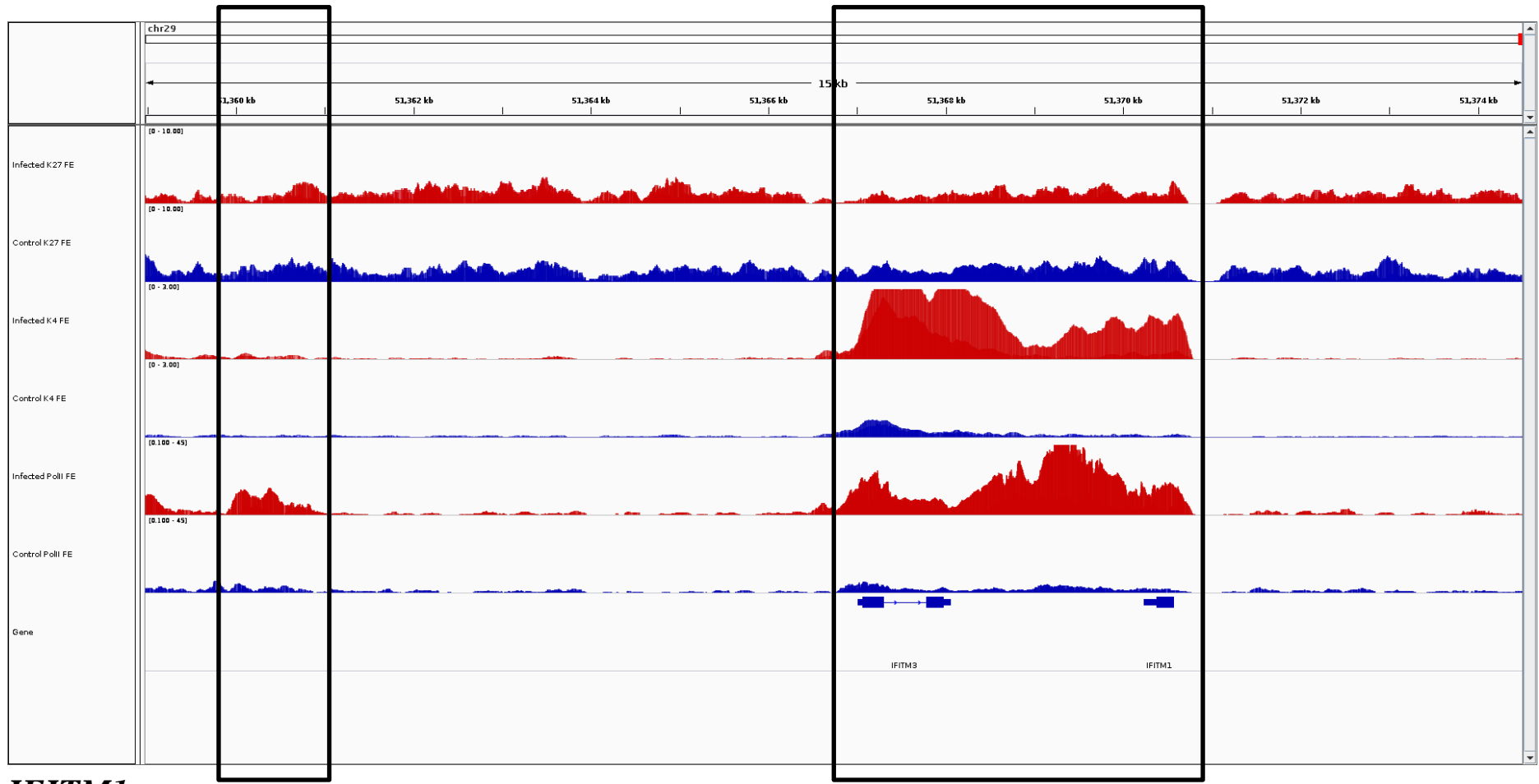
IFI27



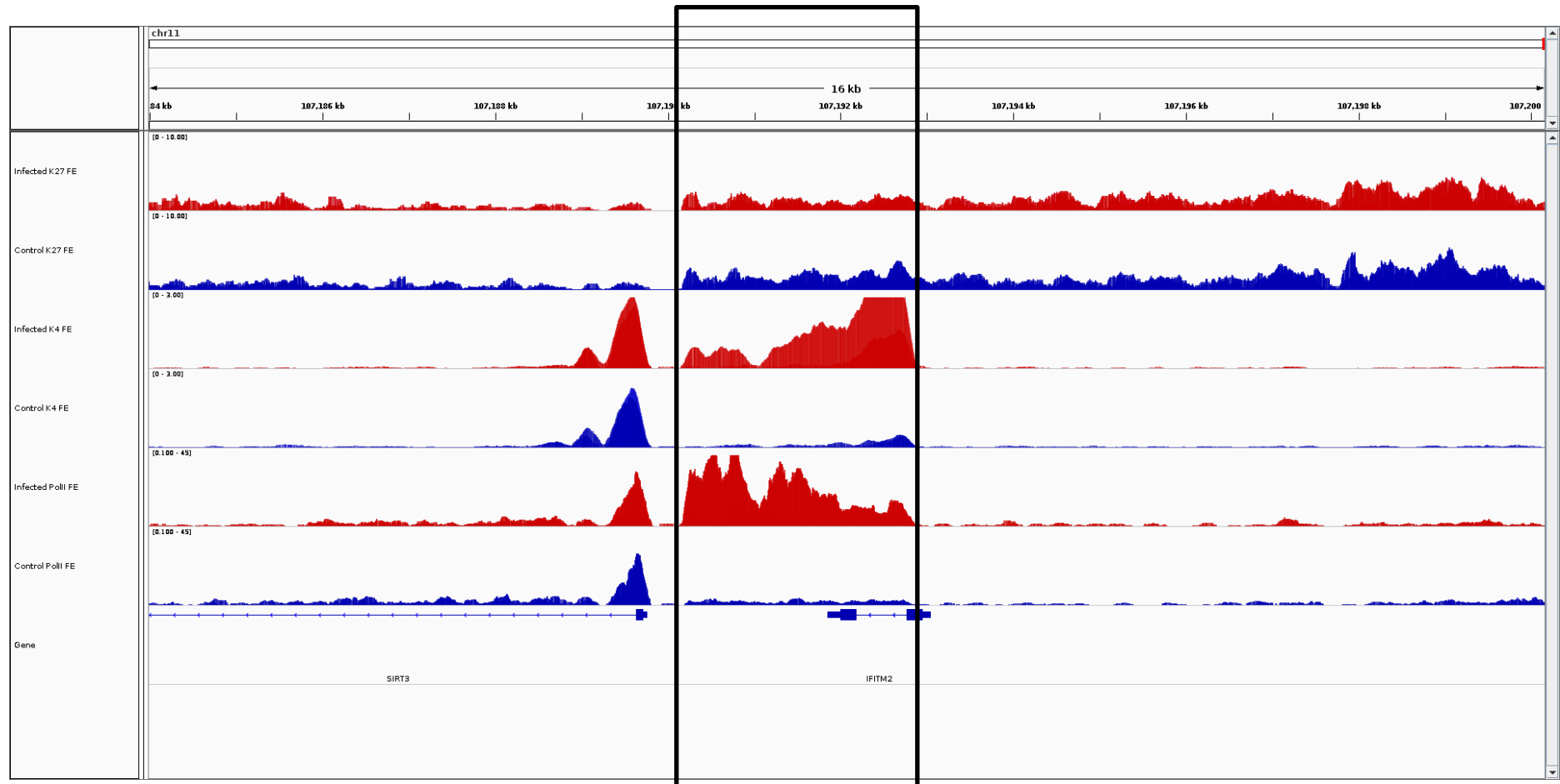
IFIT3



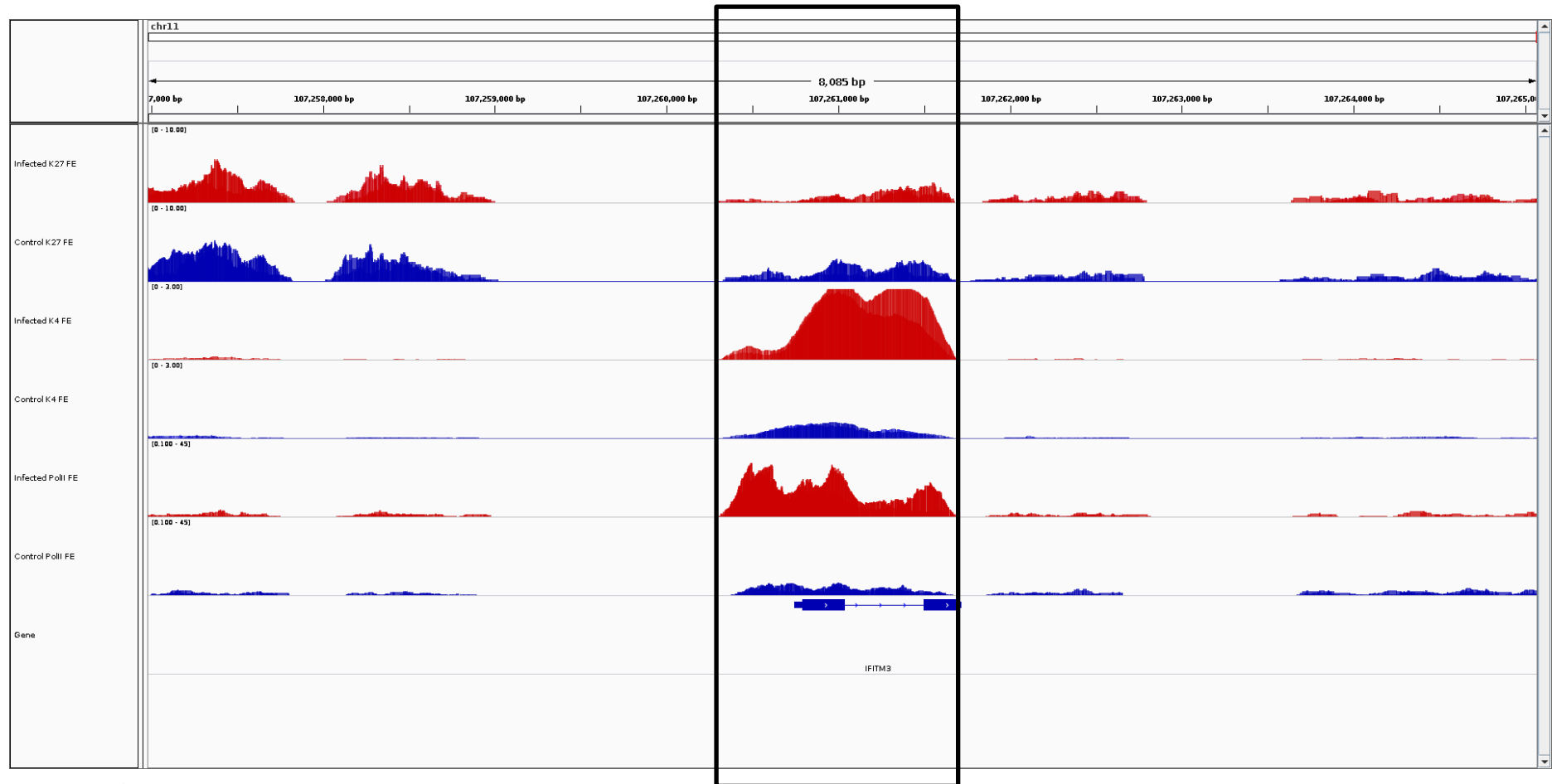
IFIT5



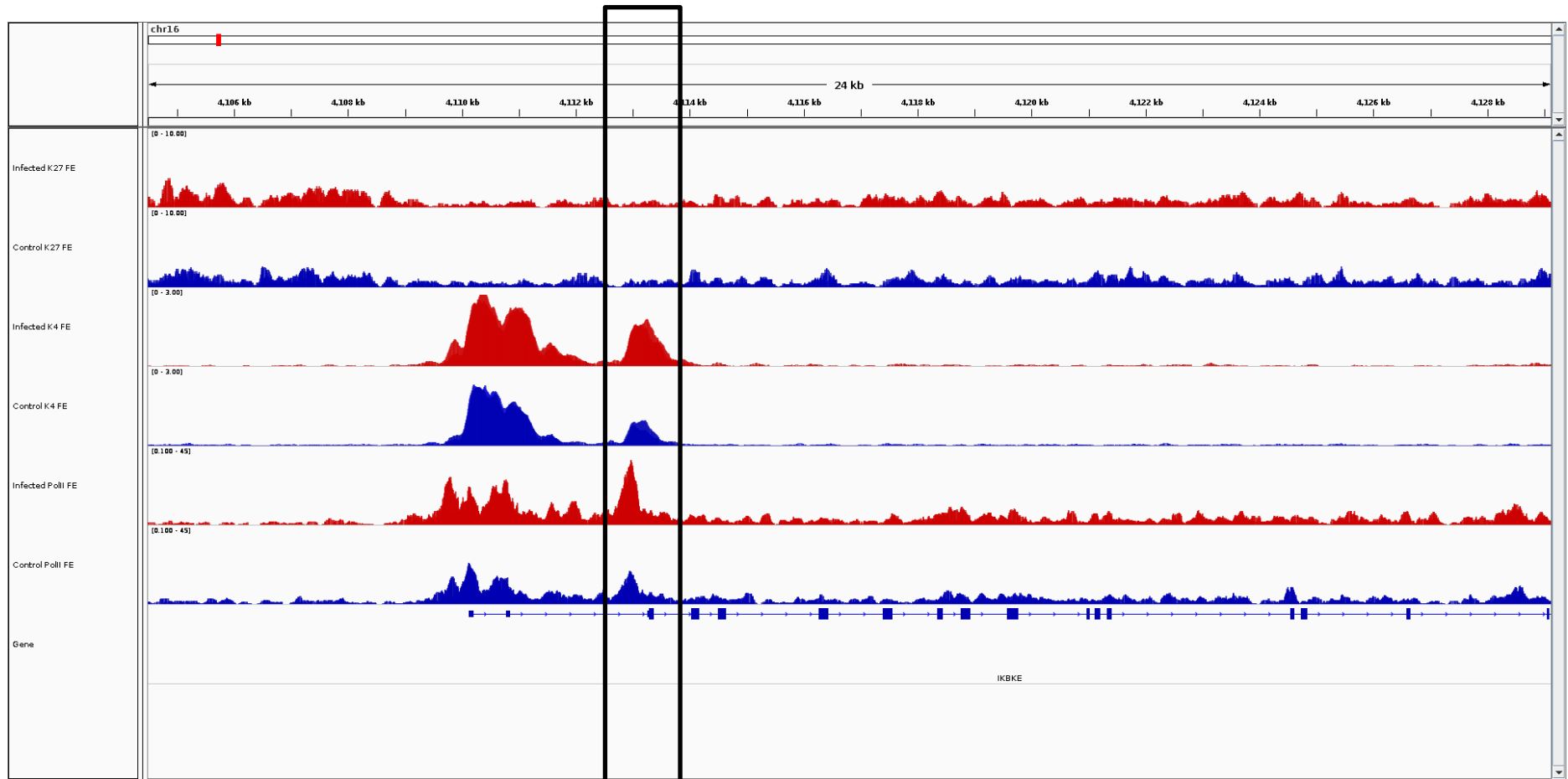
IFITM1



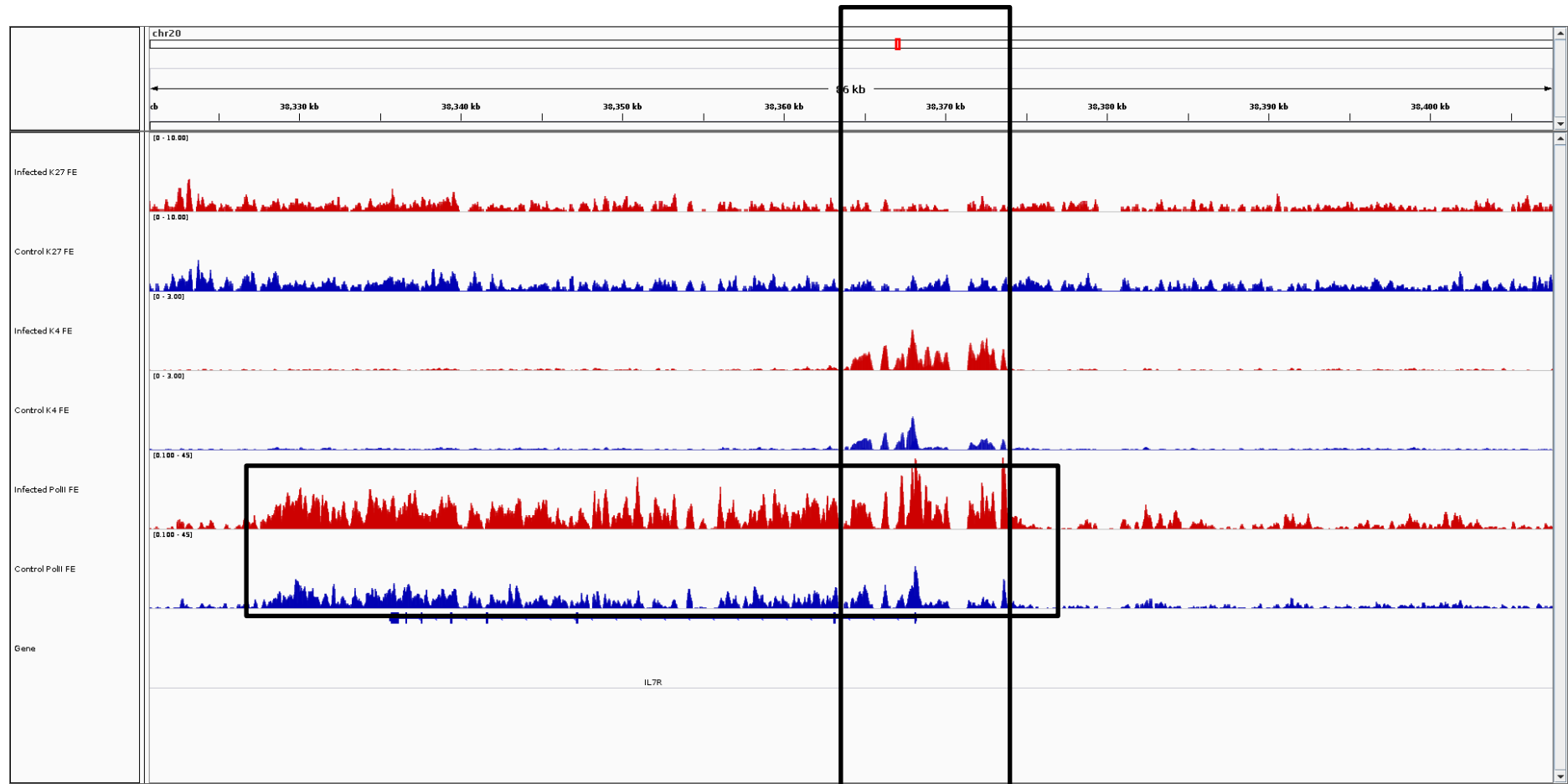
IFITM2



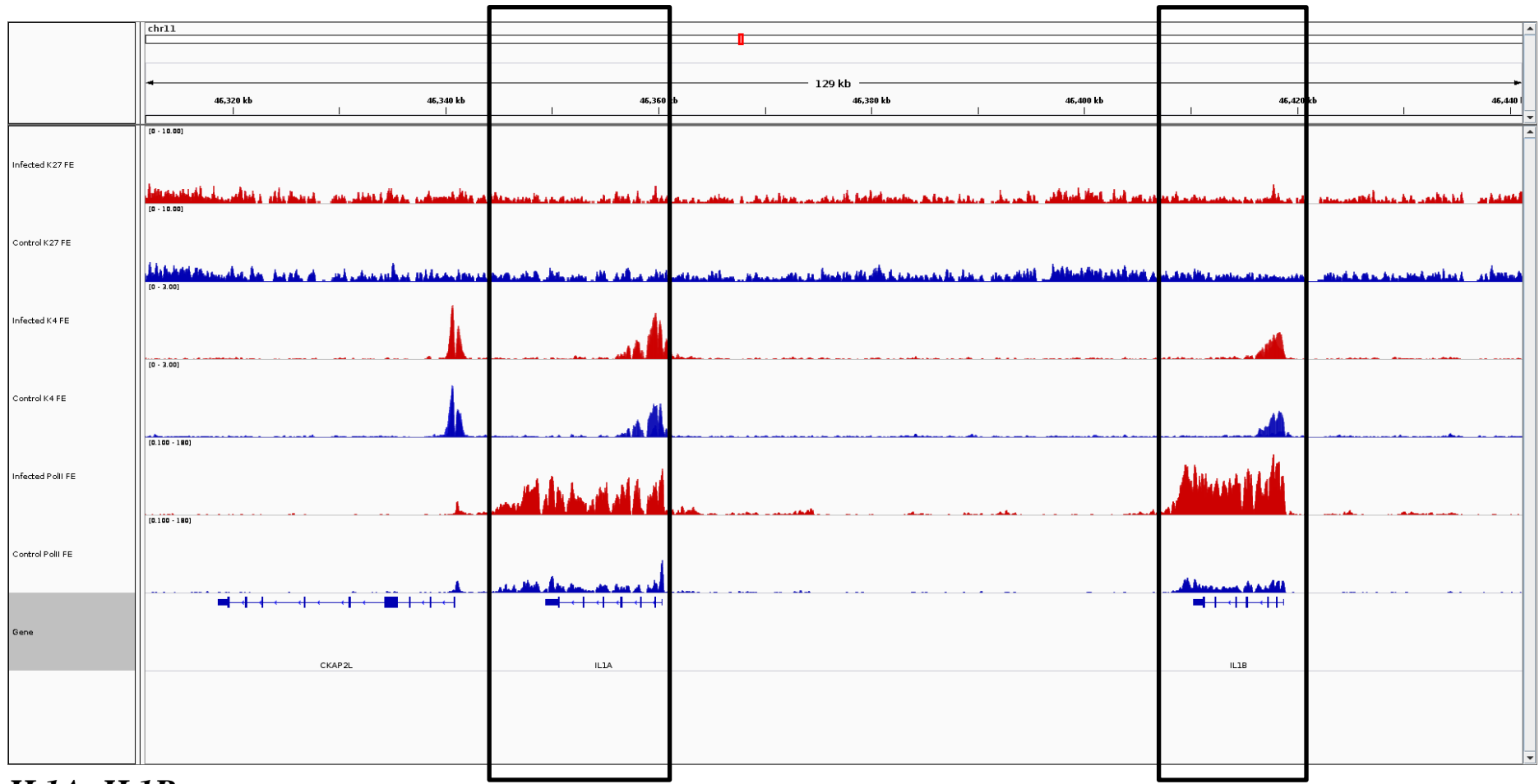
IFITM3



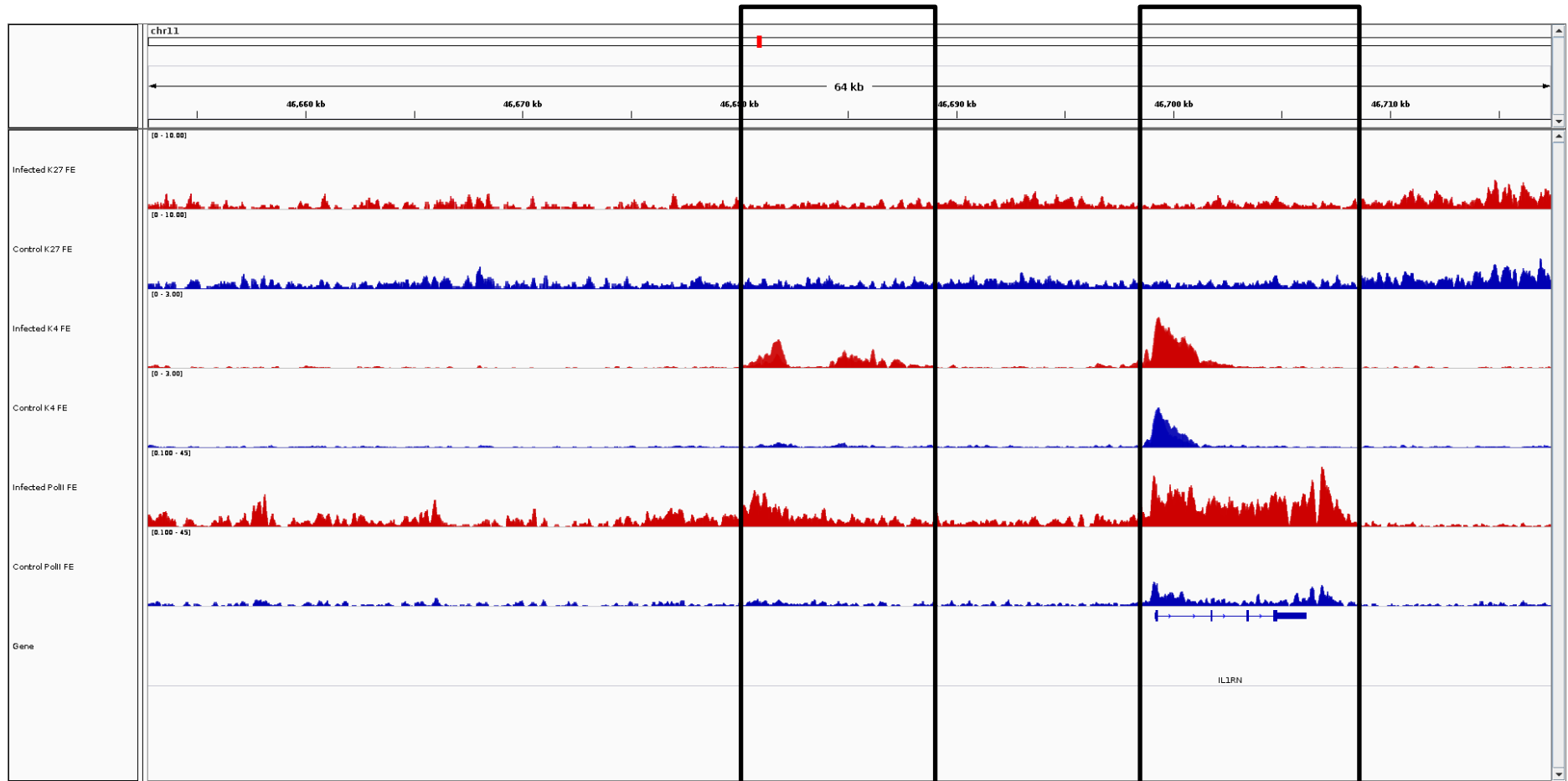
IKBKE



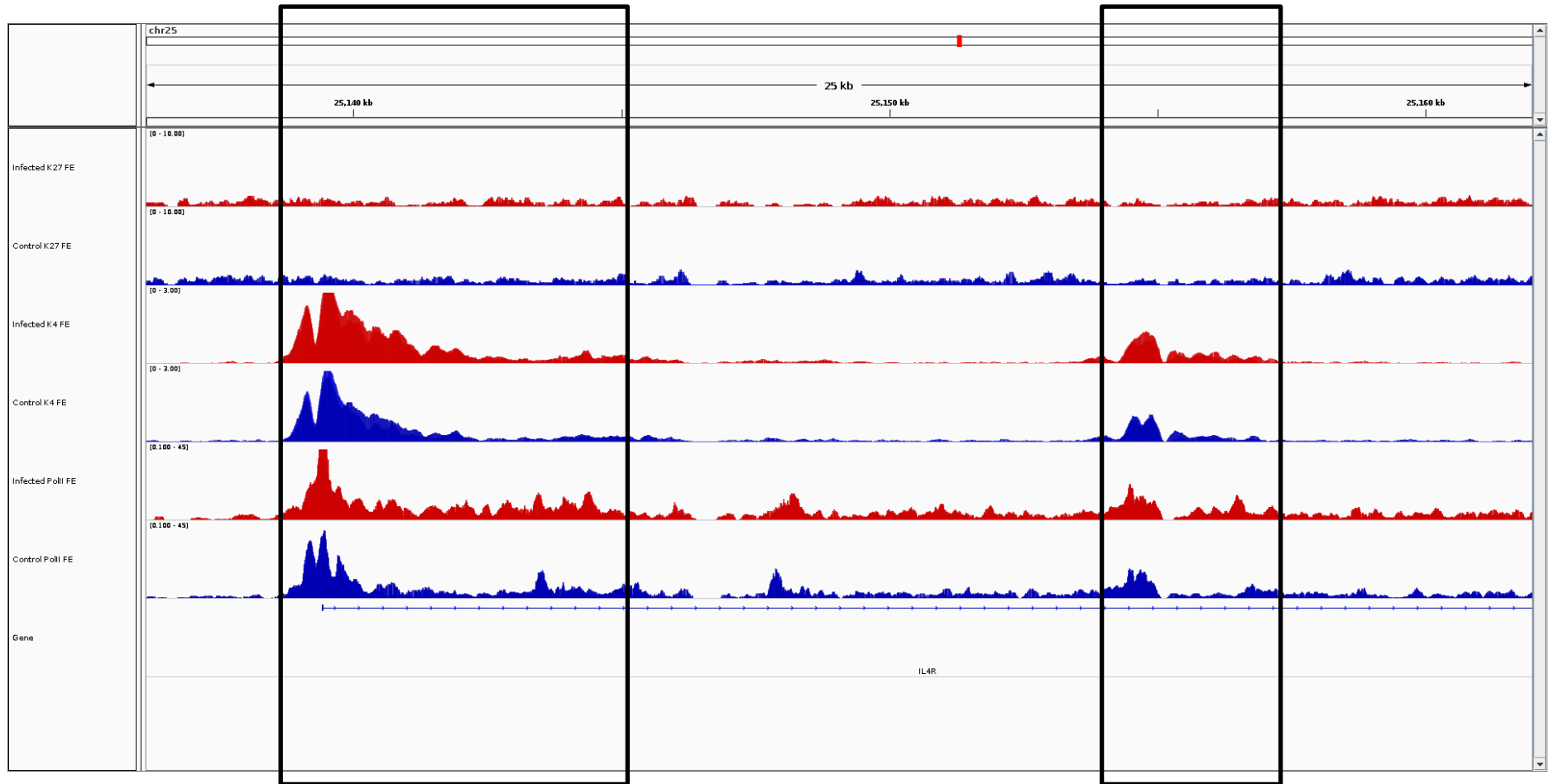
IL7R



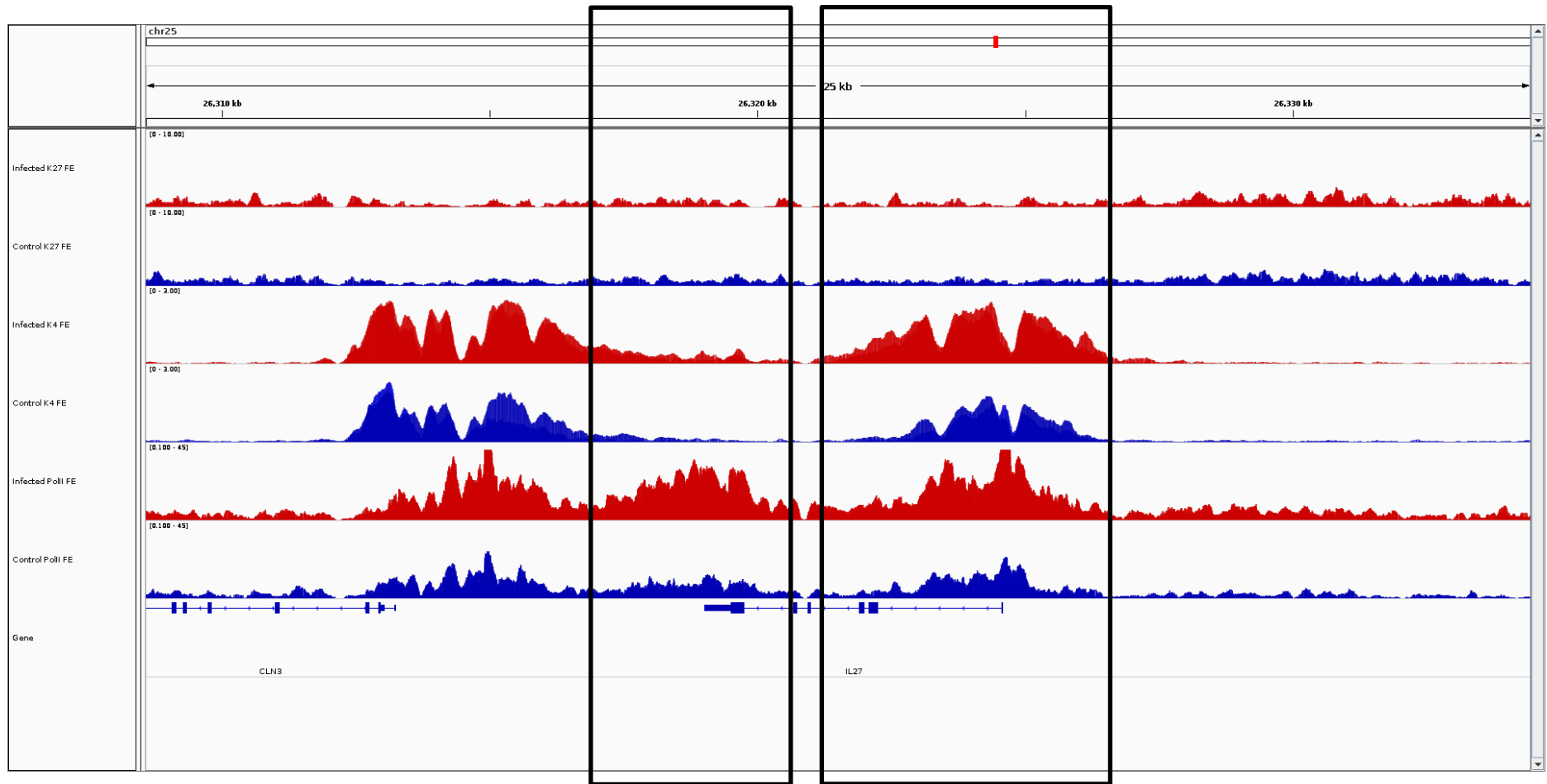
IL1A, IL1B



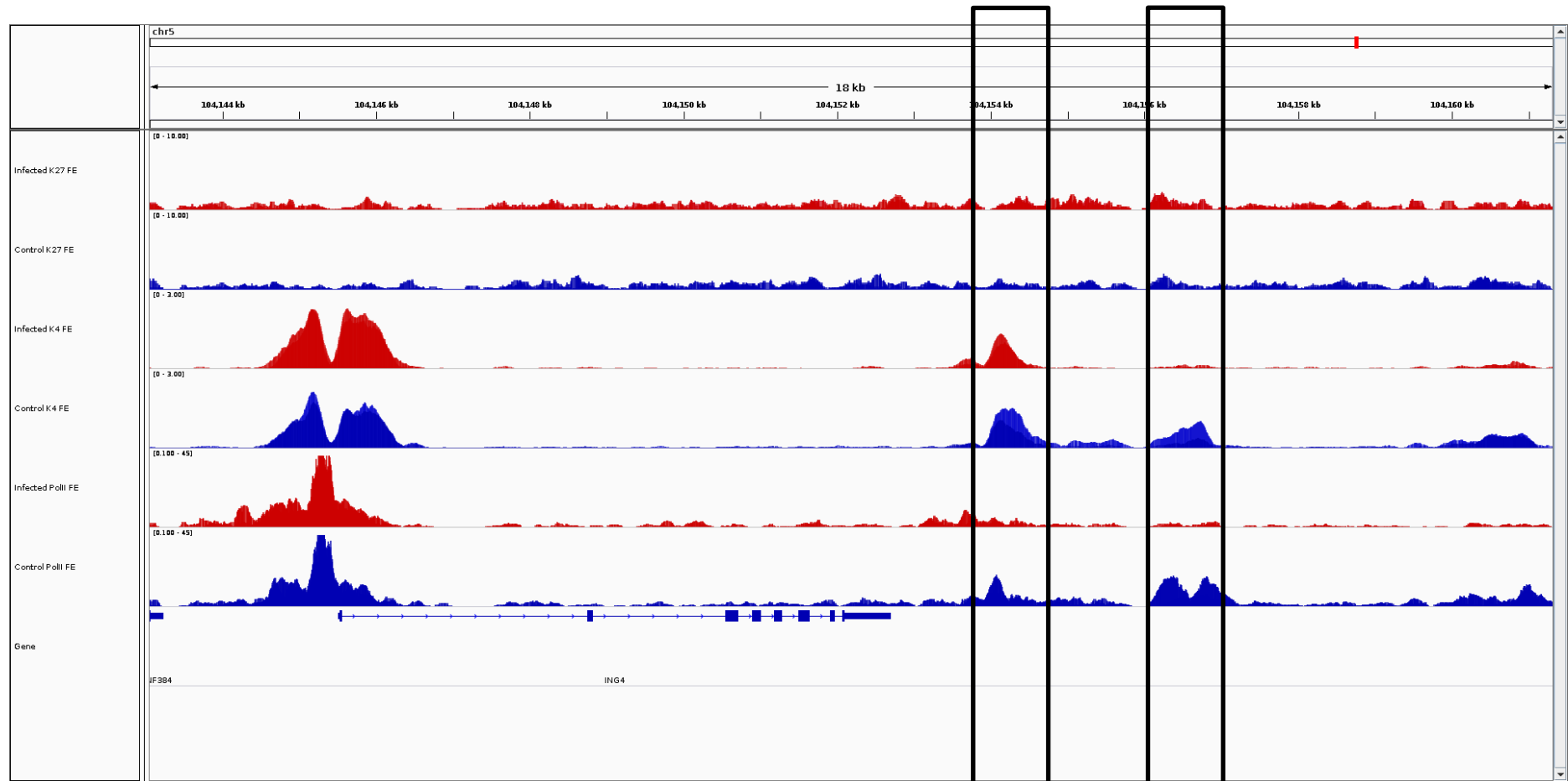
IL1RN



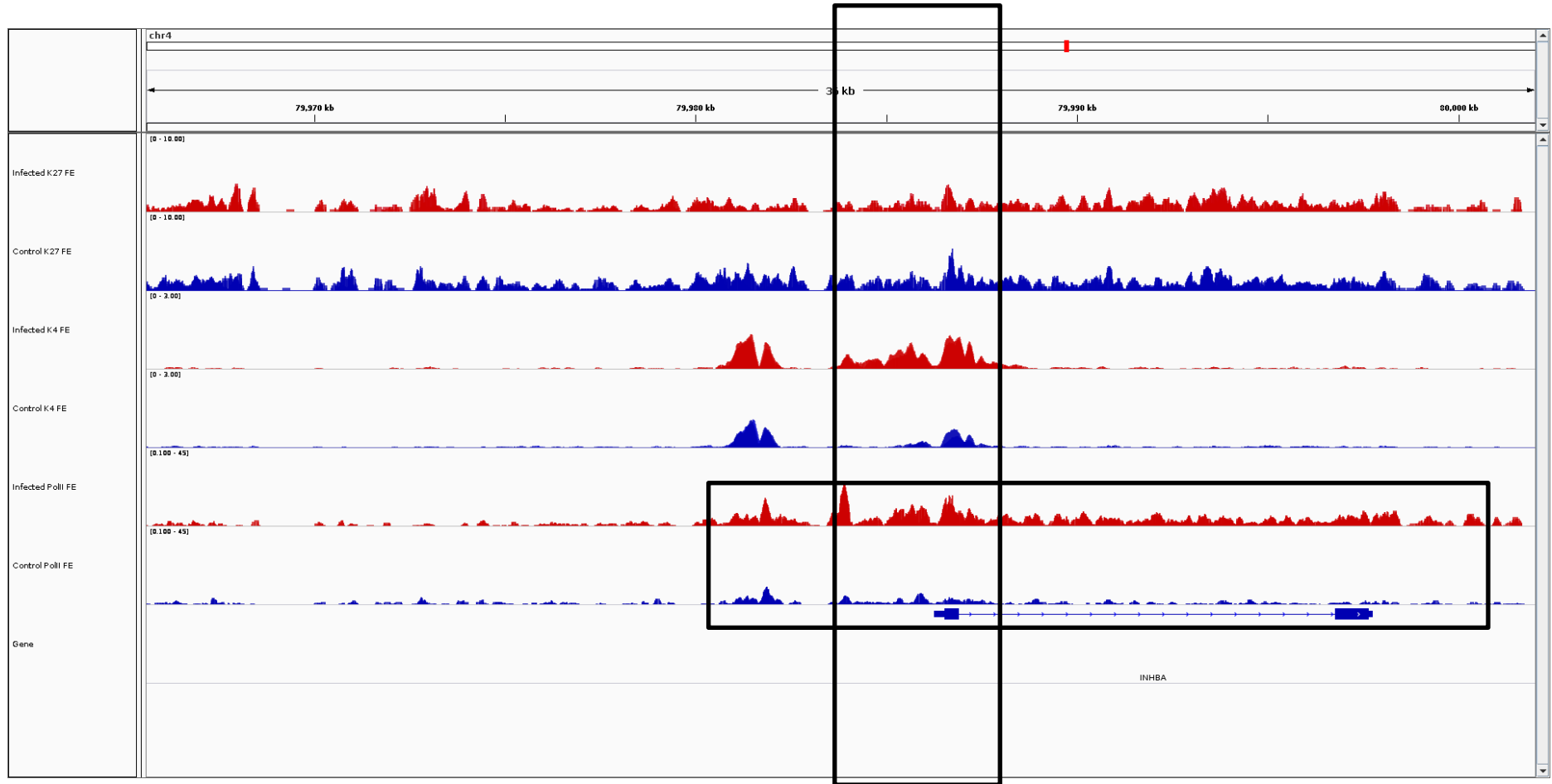
ILAR



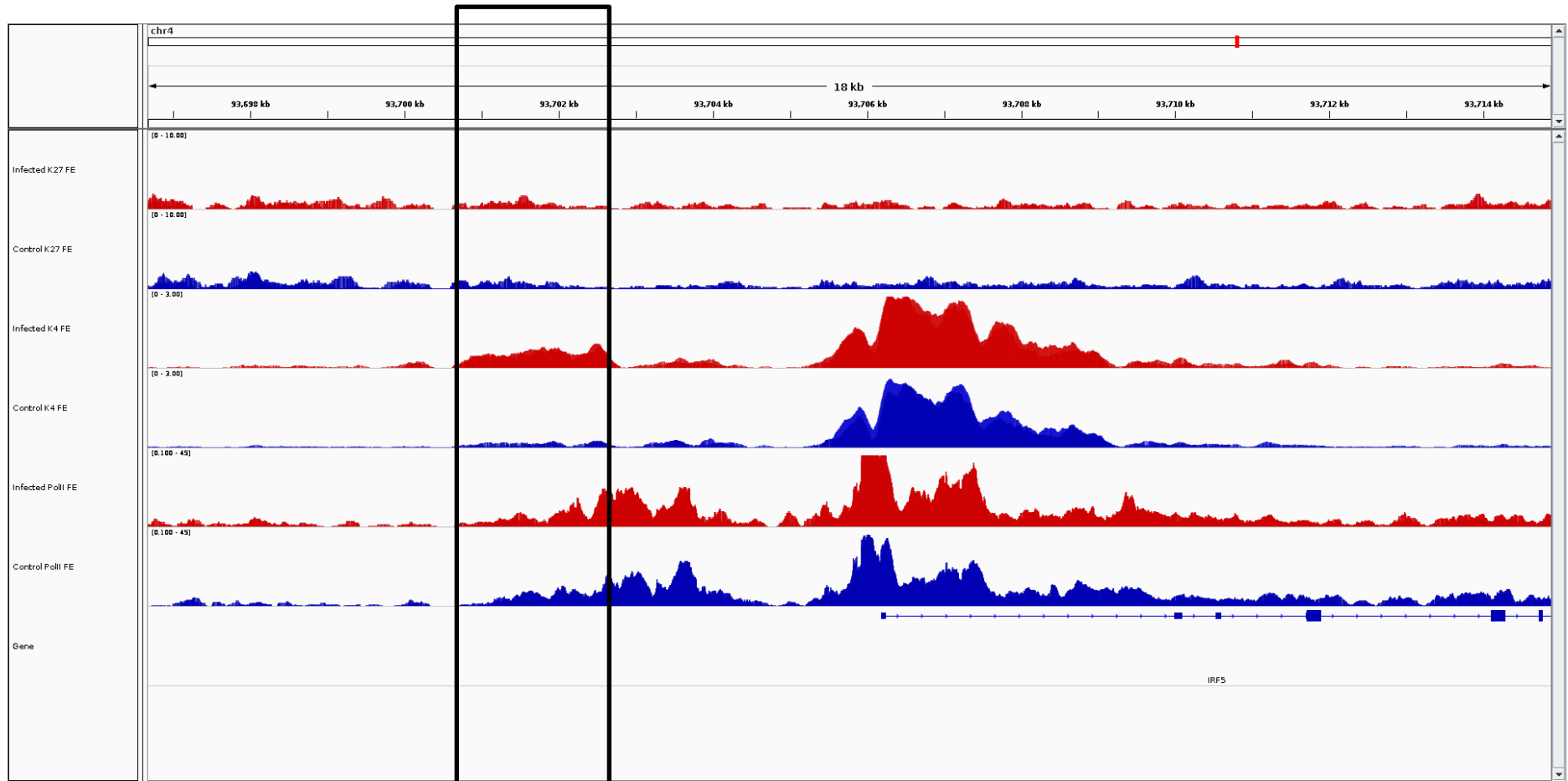
IL27



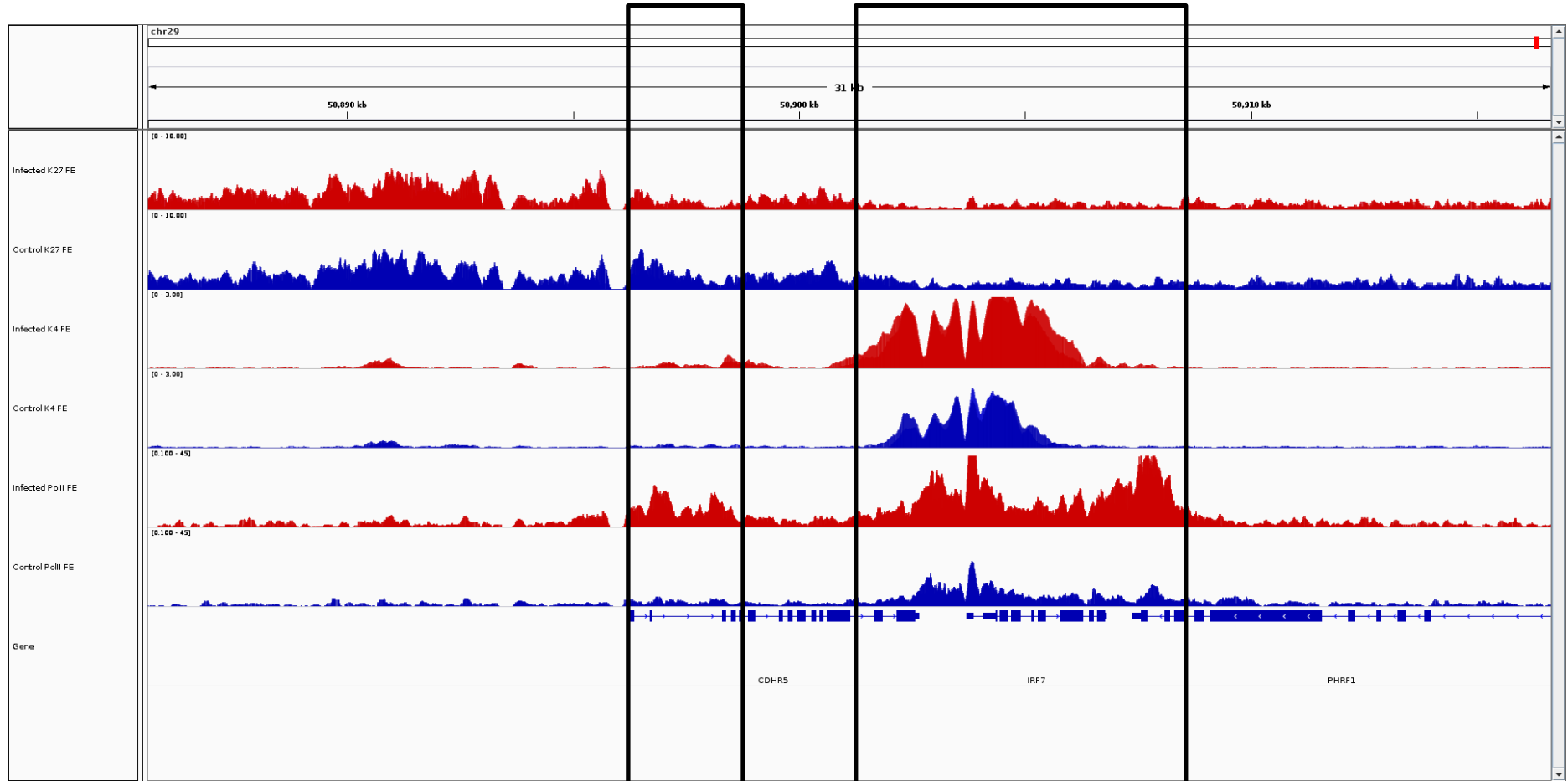
ING4



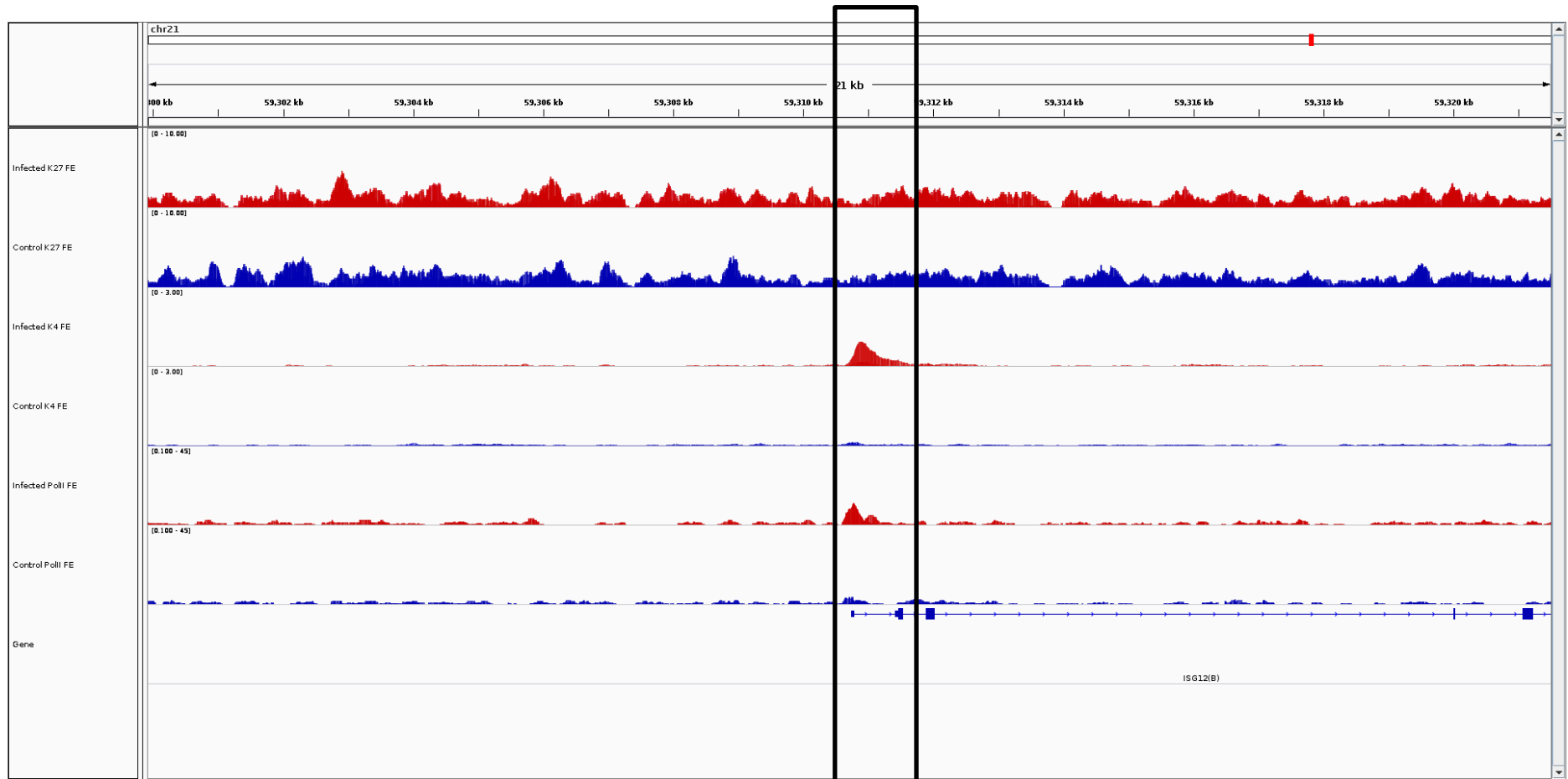
INHBA



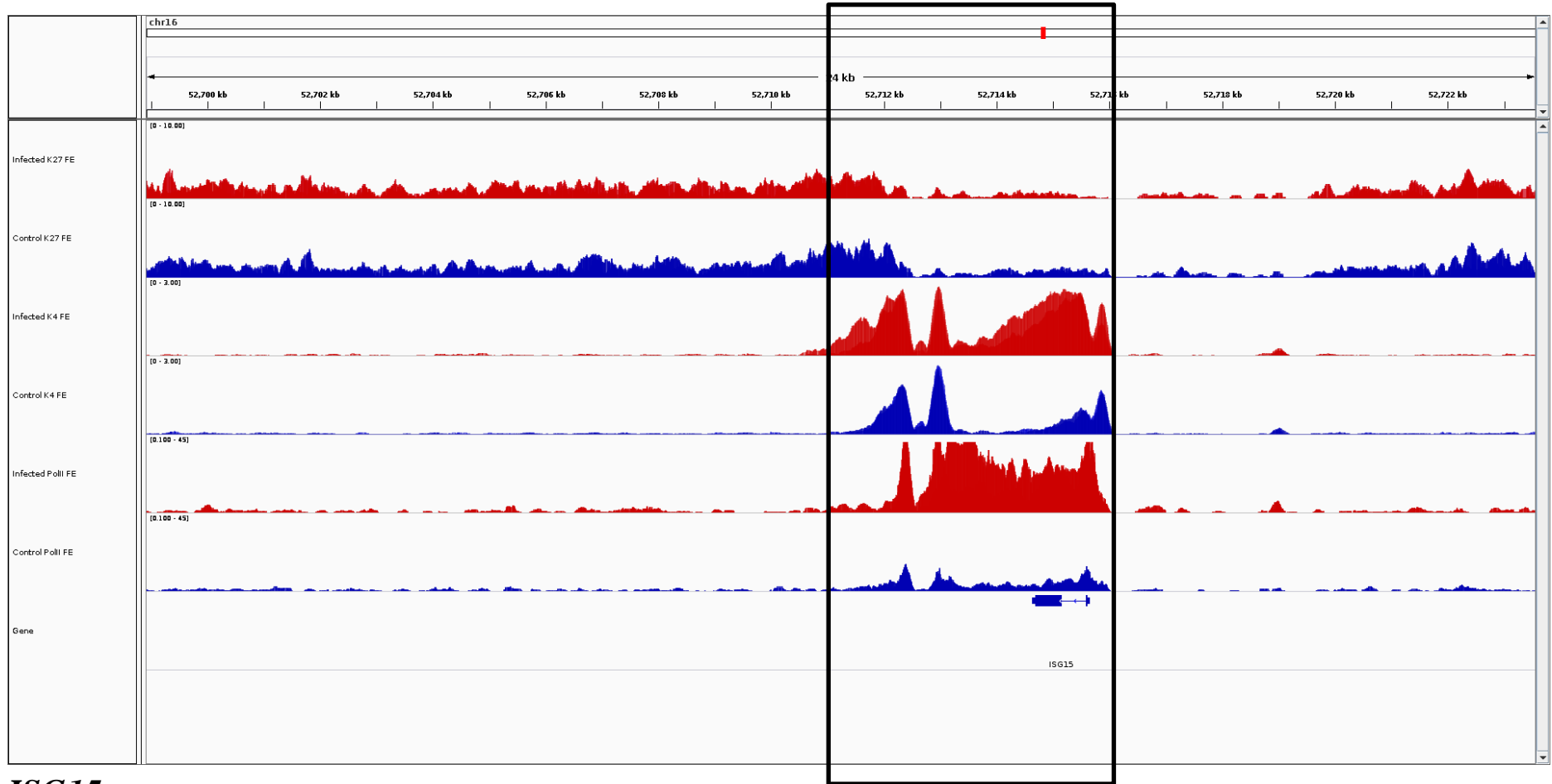
IRF5



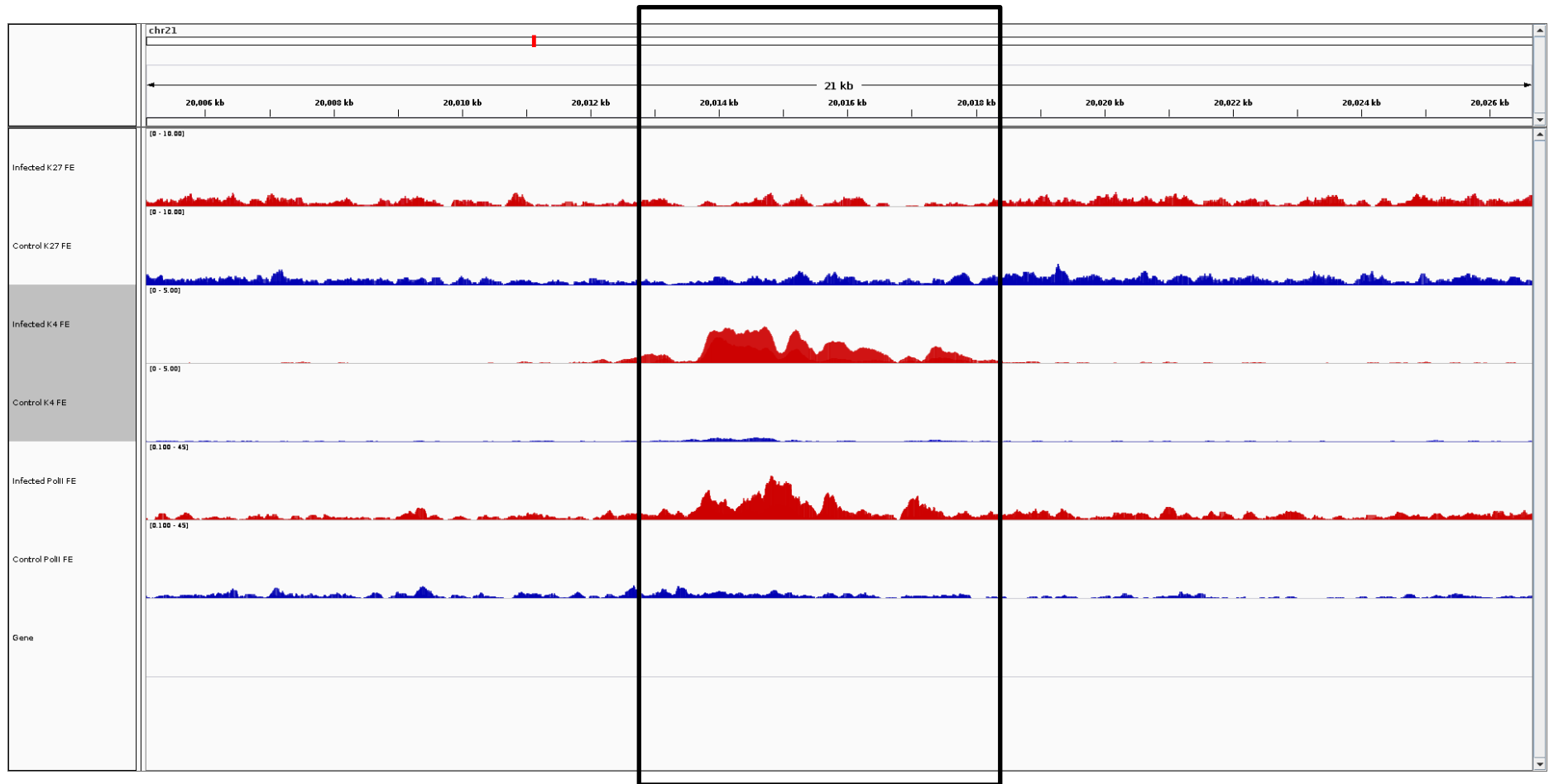
IRF7



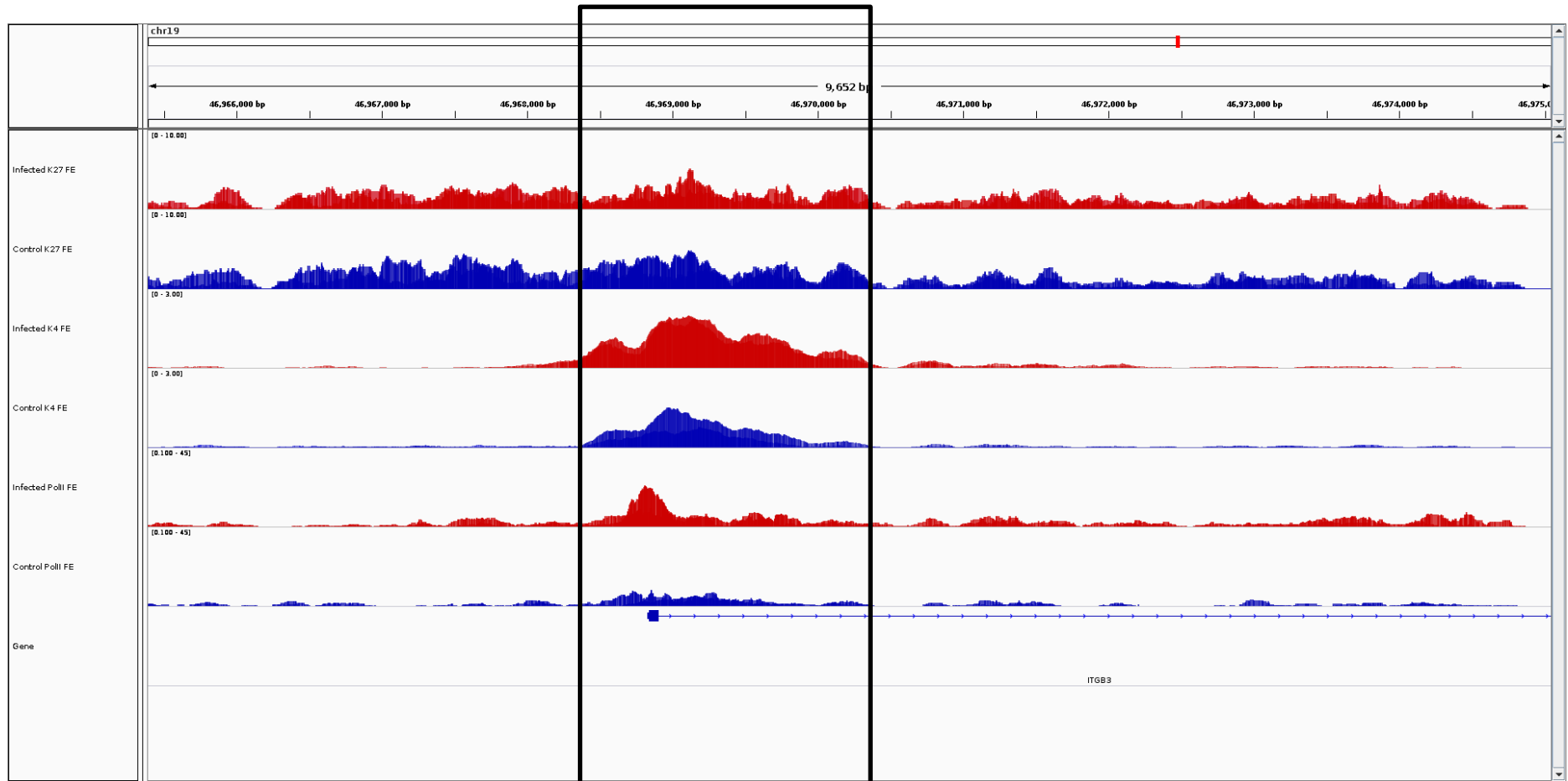
ISG12B



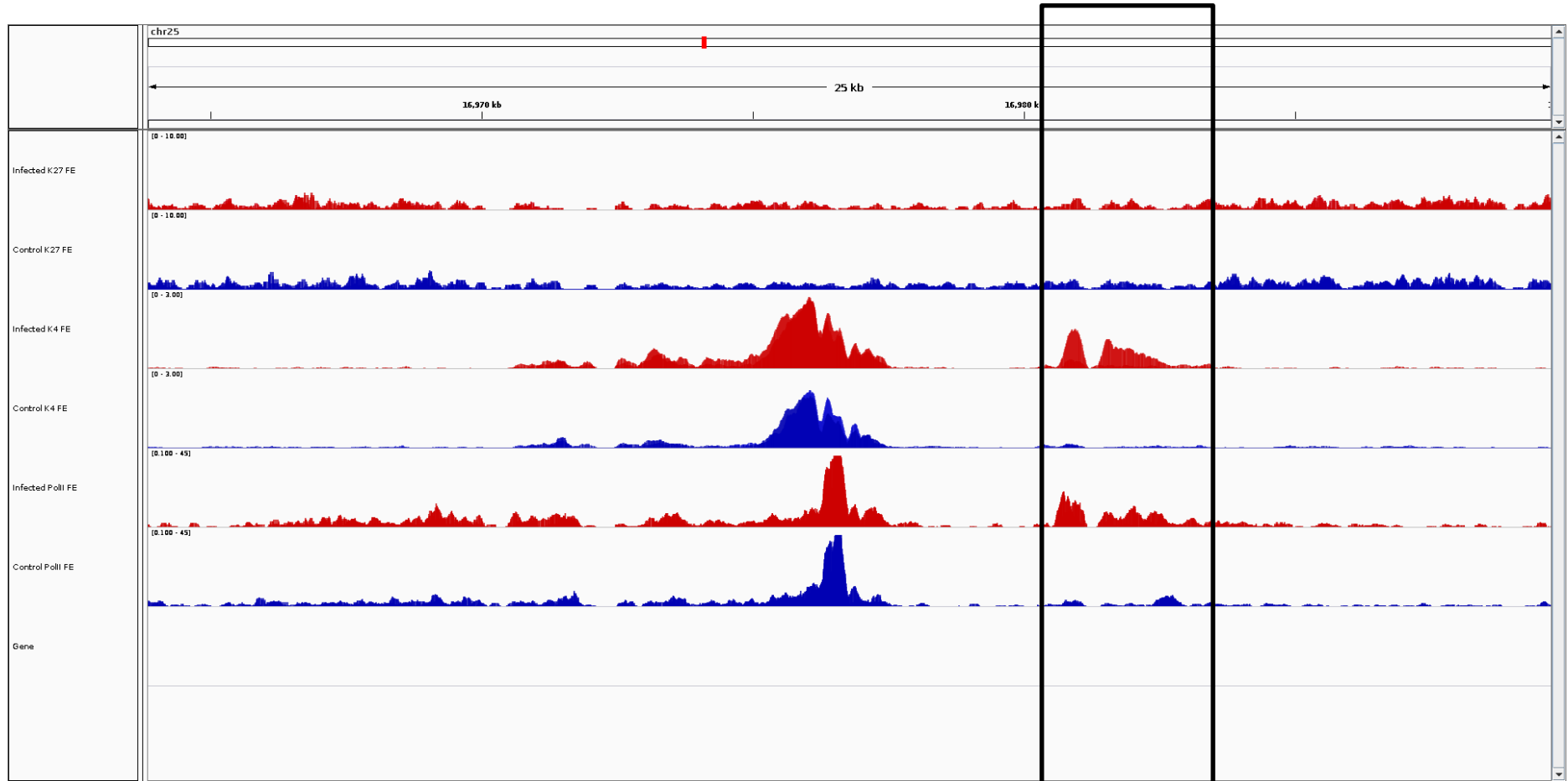
ISG15



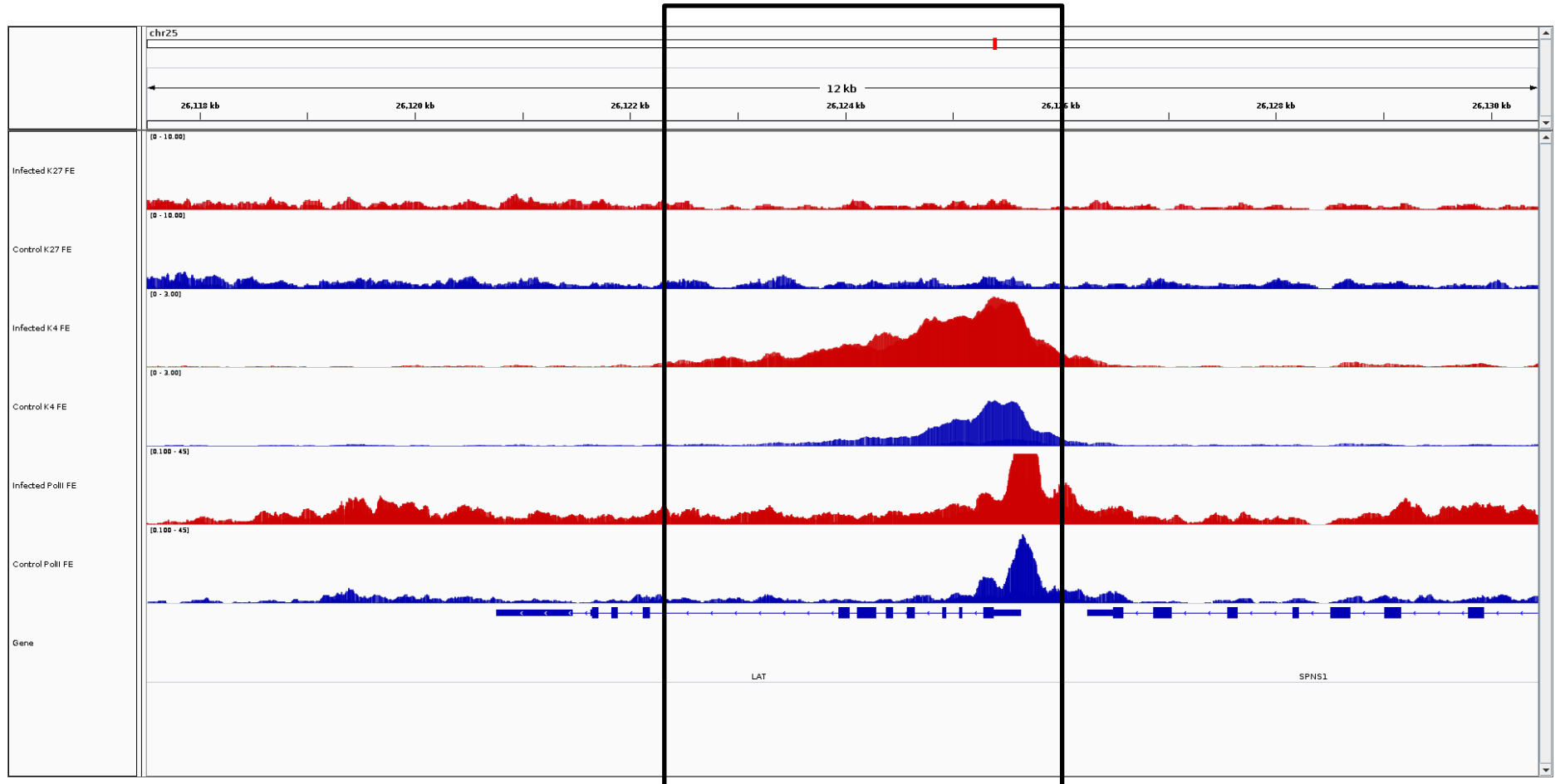
ISG20



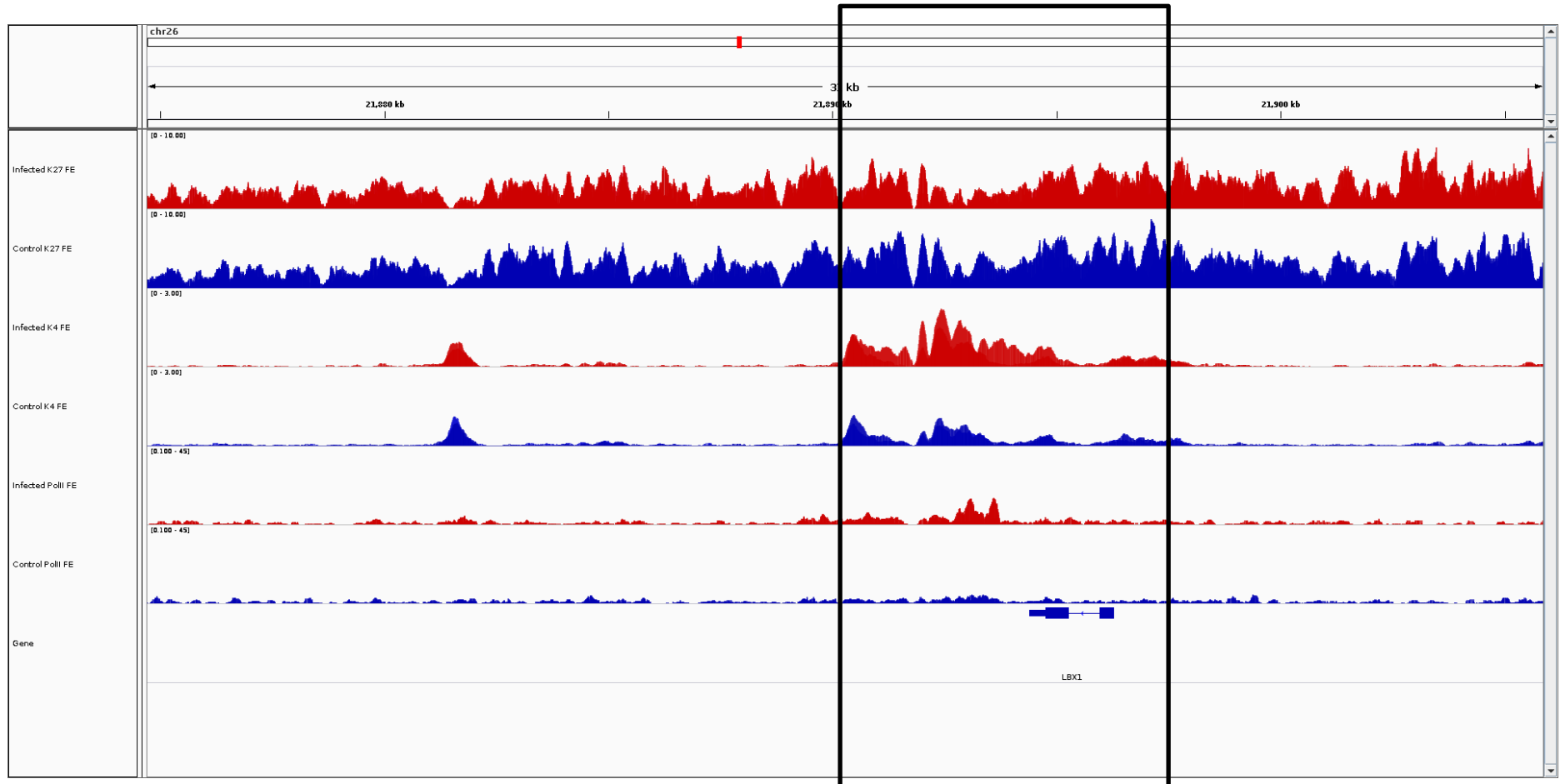
ITGB3



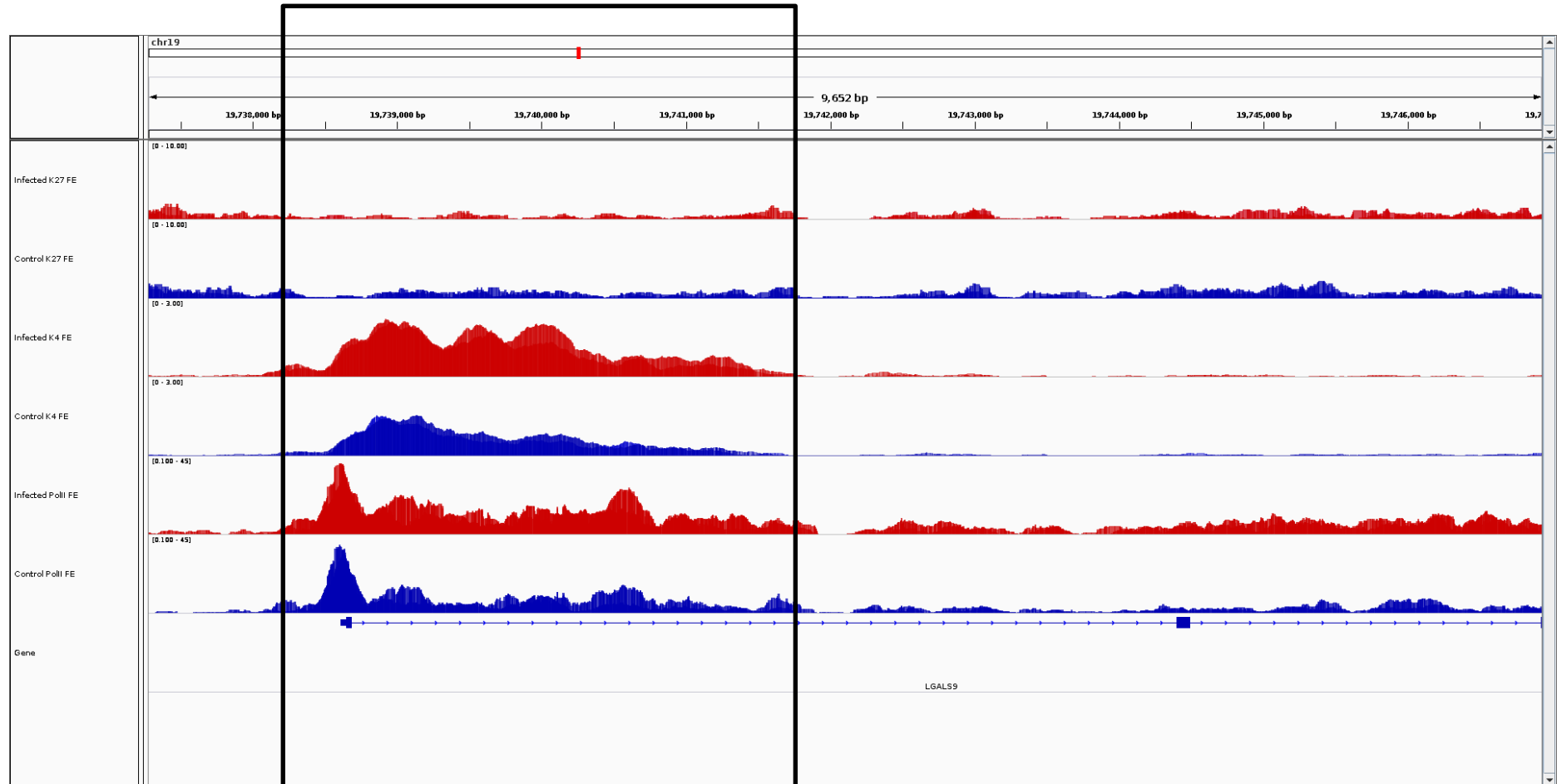
ITPRIPL2



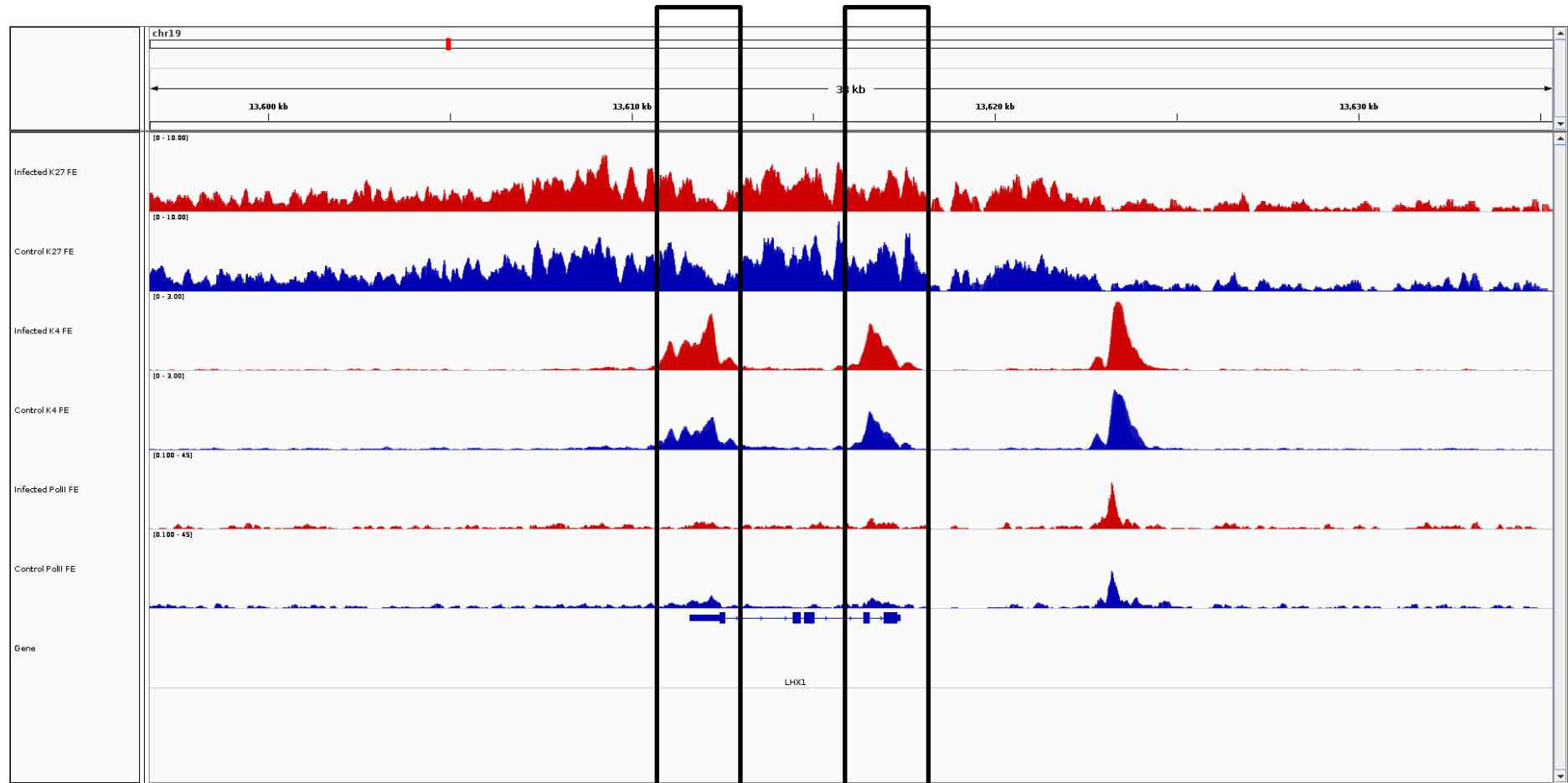
LAT



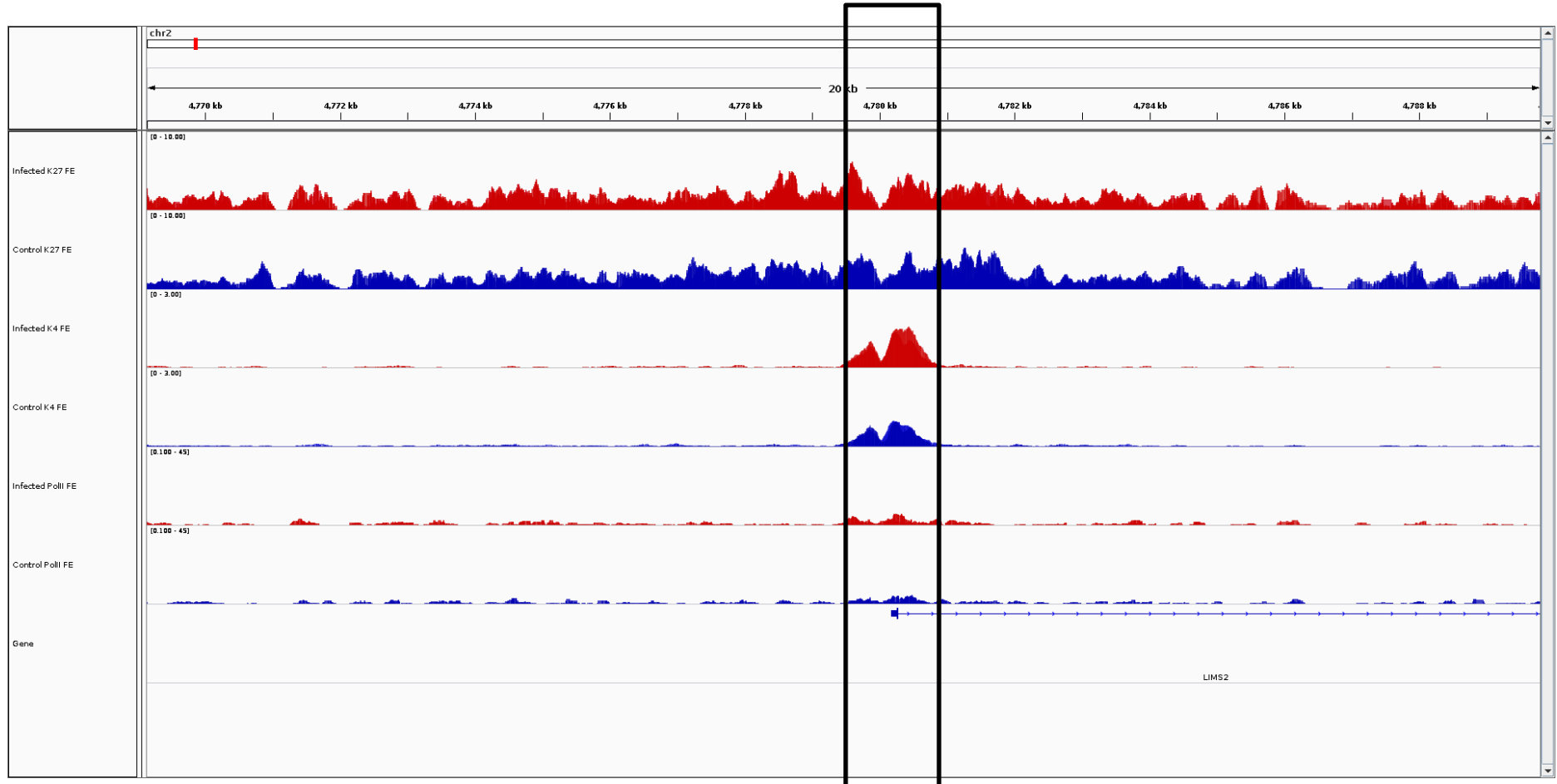
LBX1



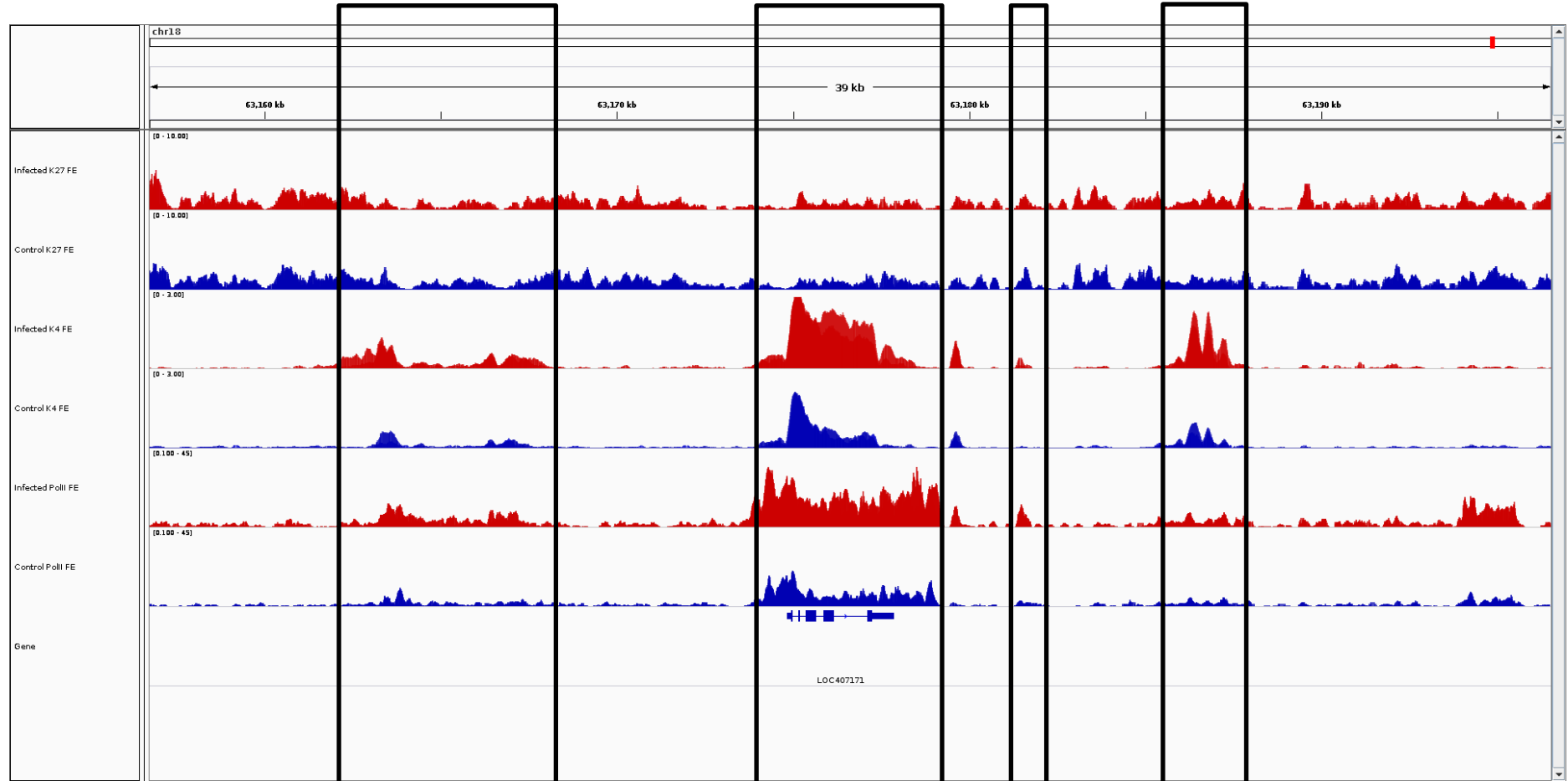
LGALS9



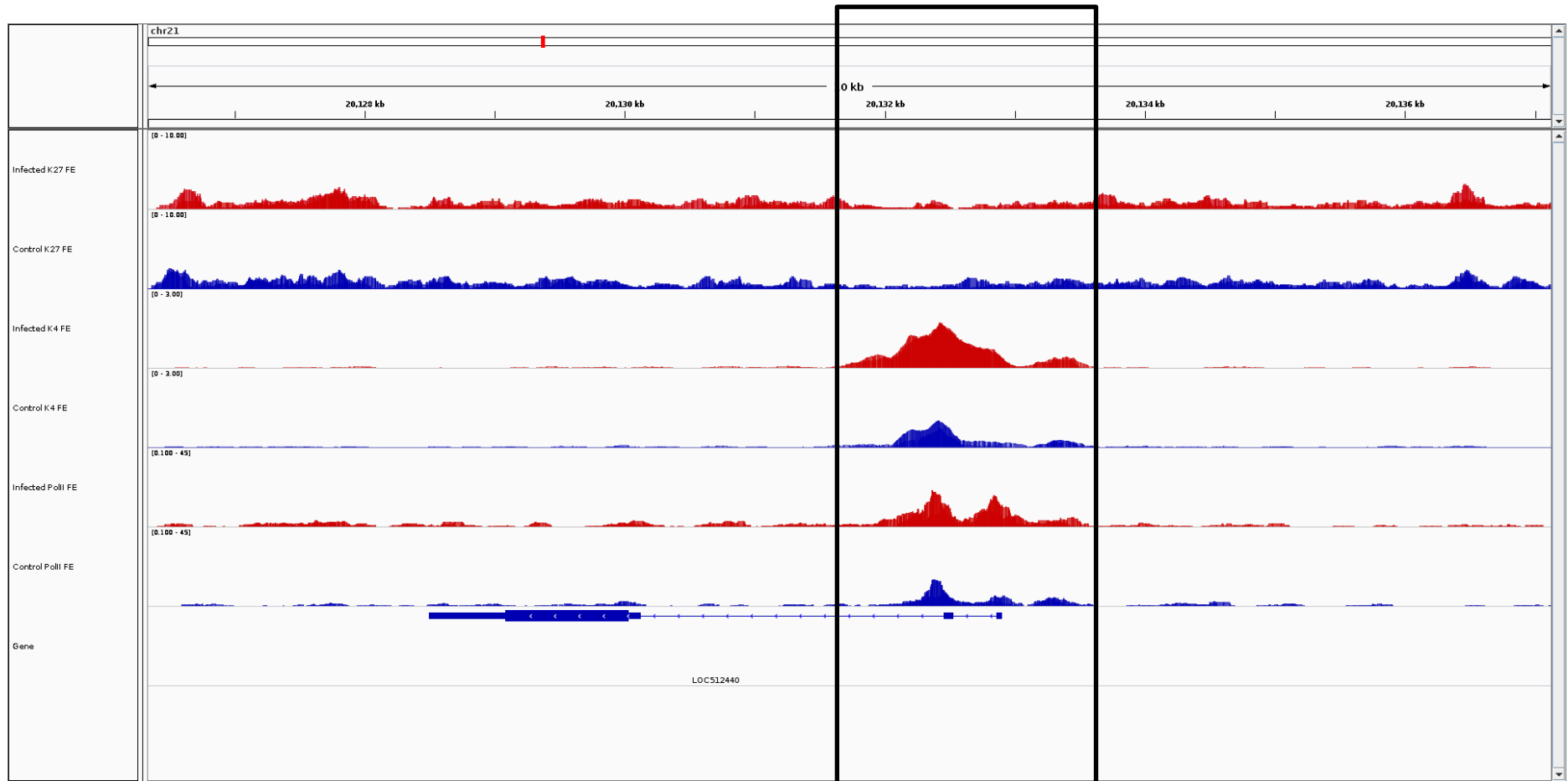
LHX1



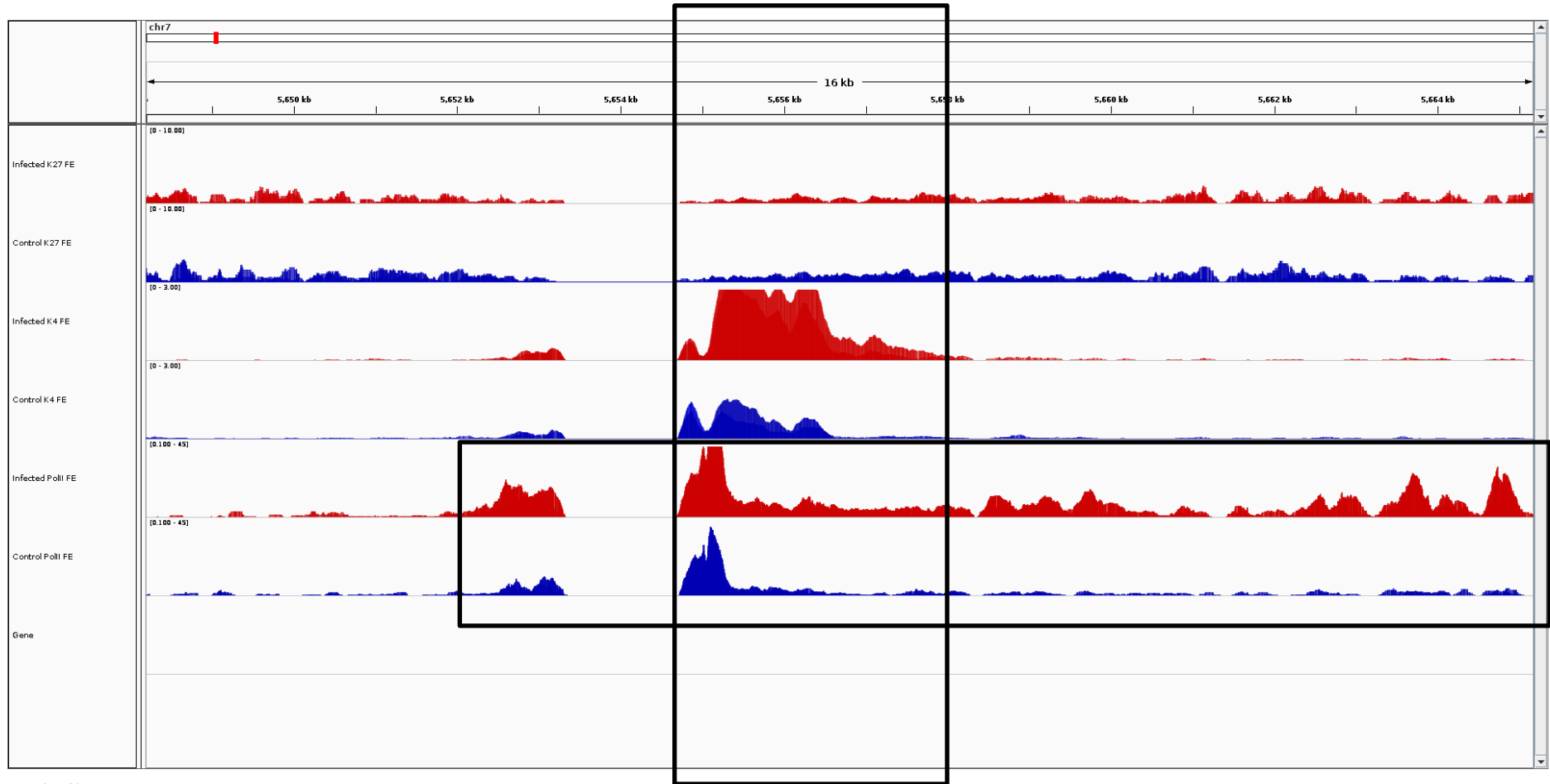
LIMS2



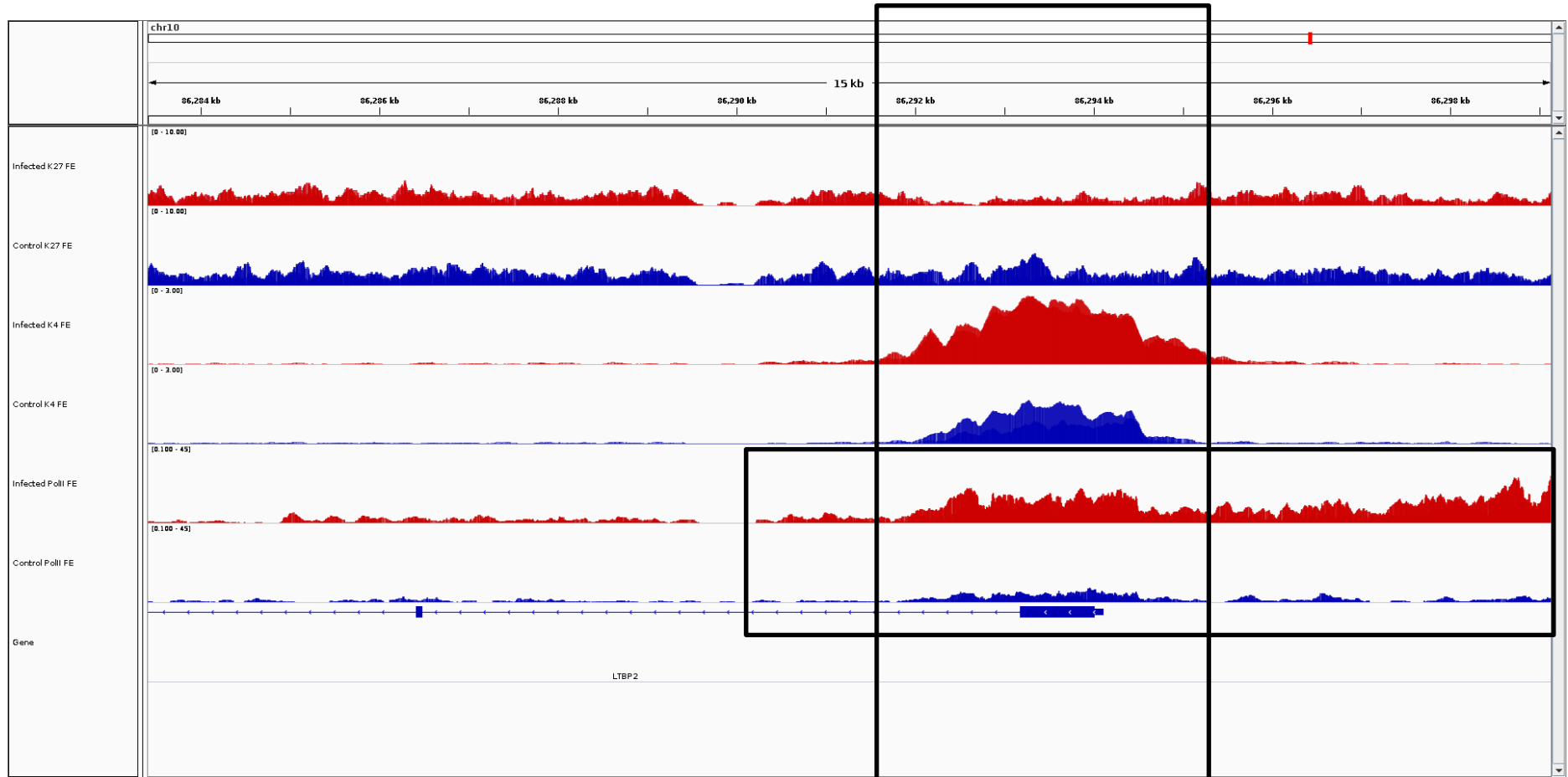
LOC407171



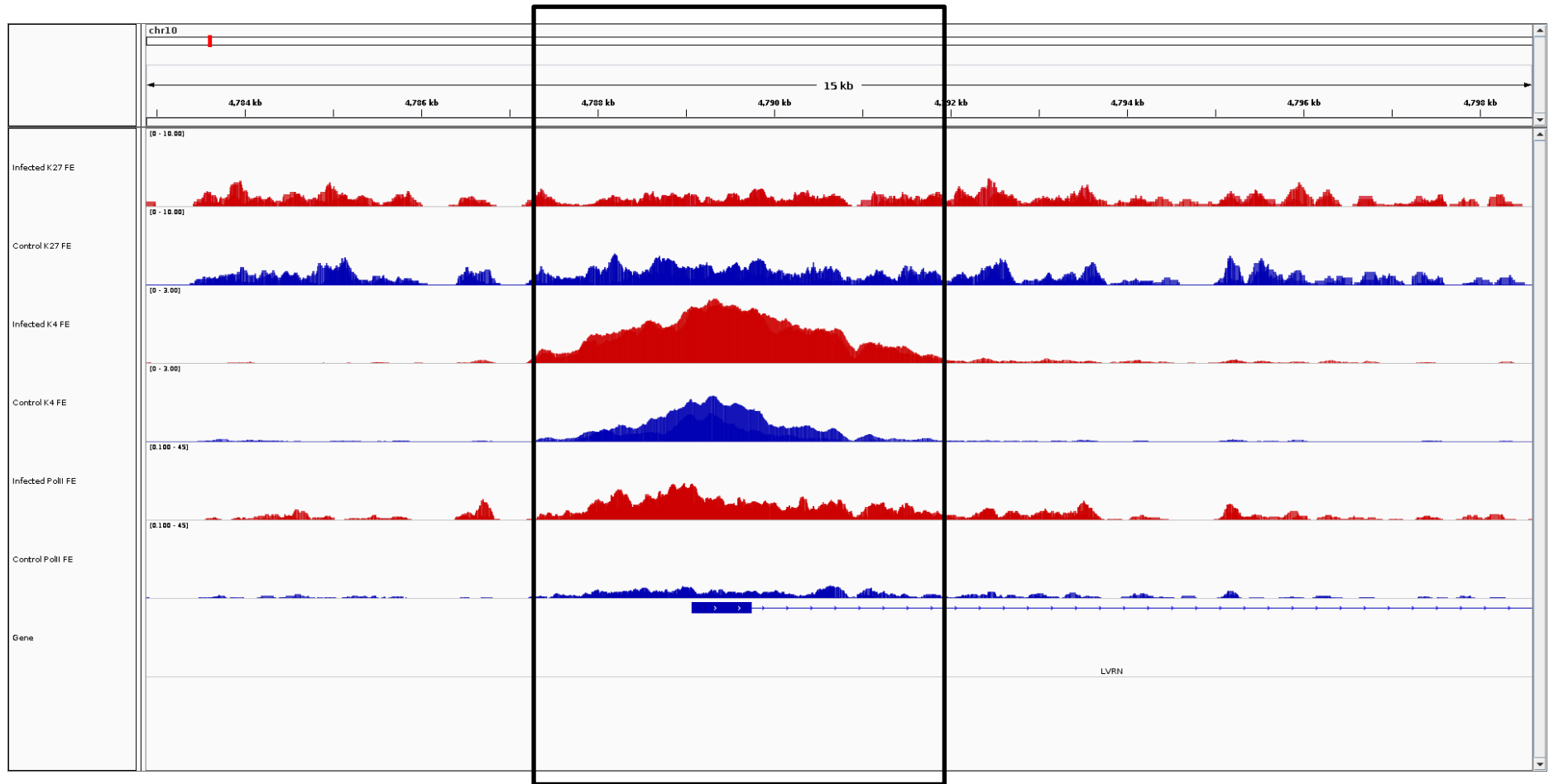
LOC512440



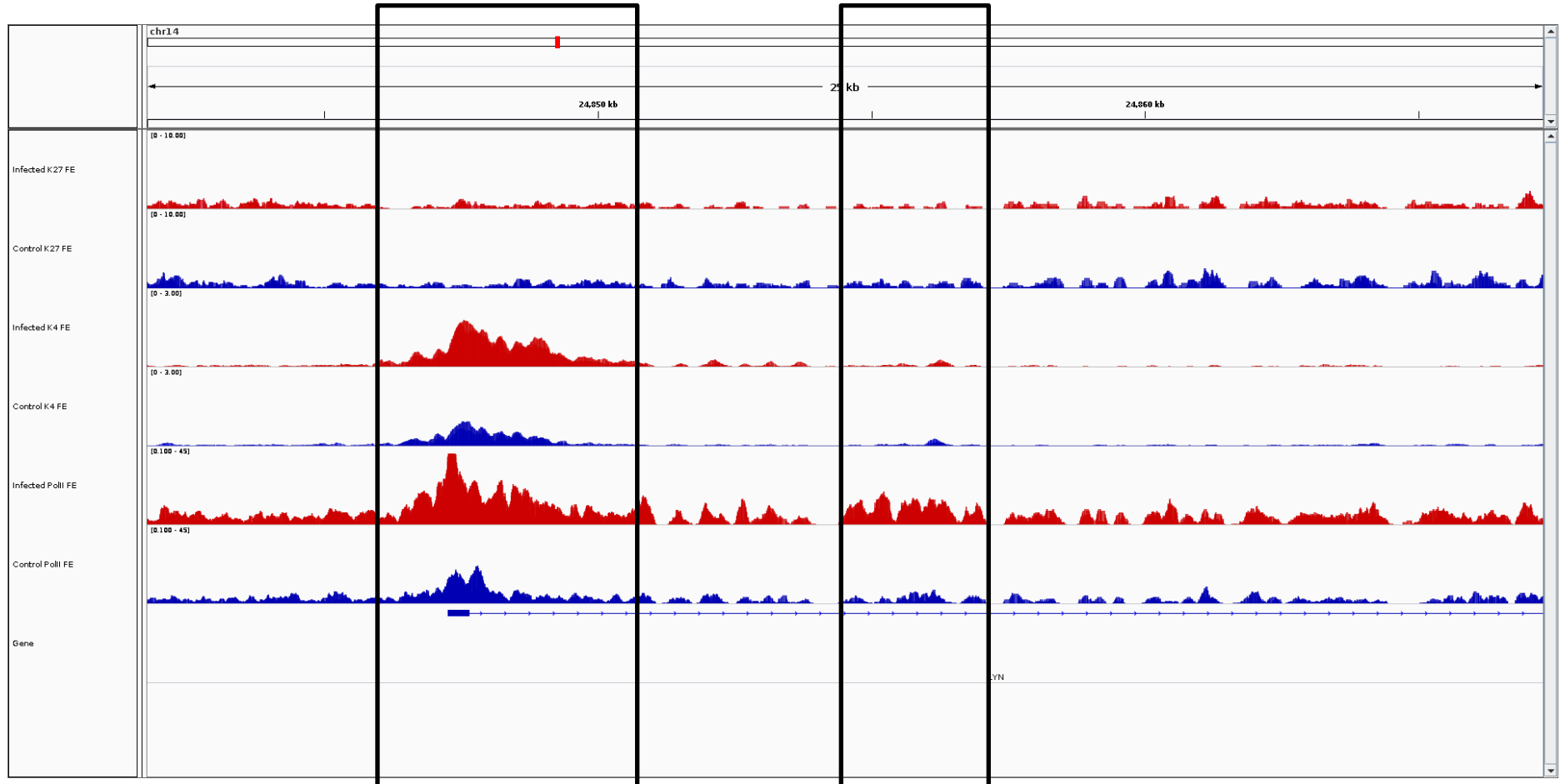
LOC100298356



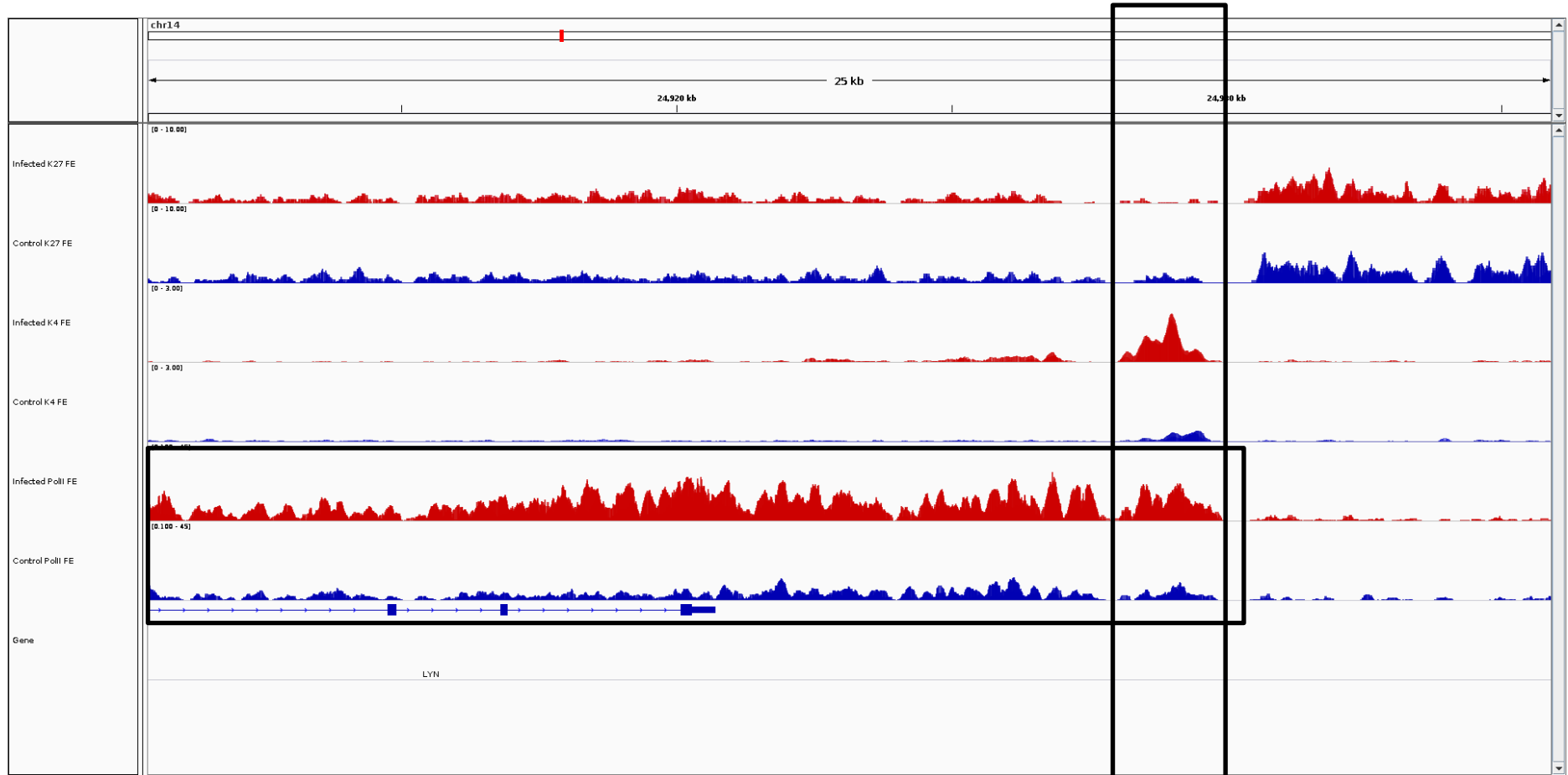
LTBP2



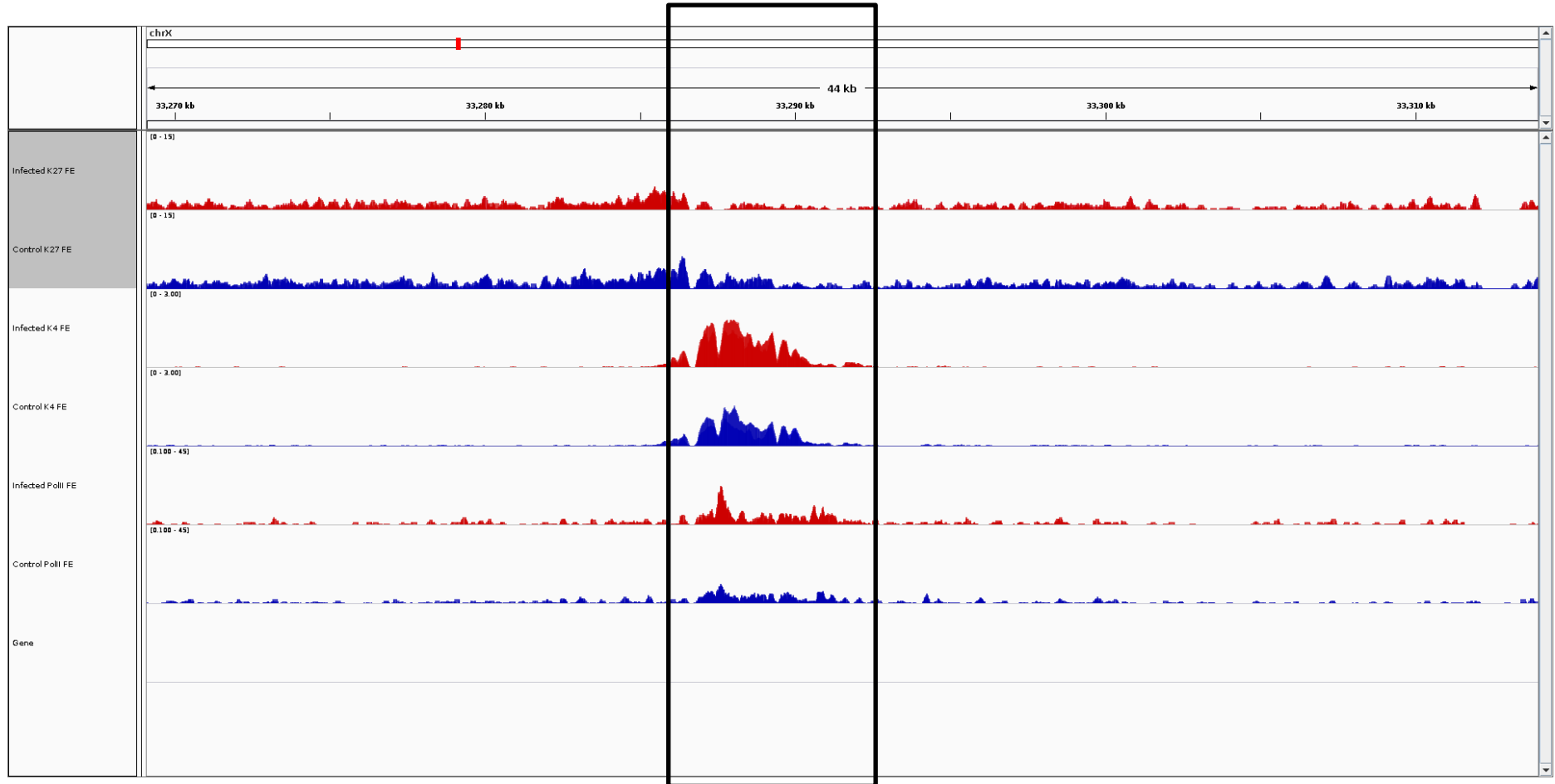
LVRN



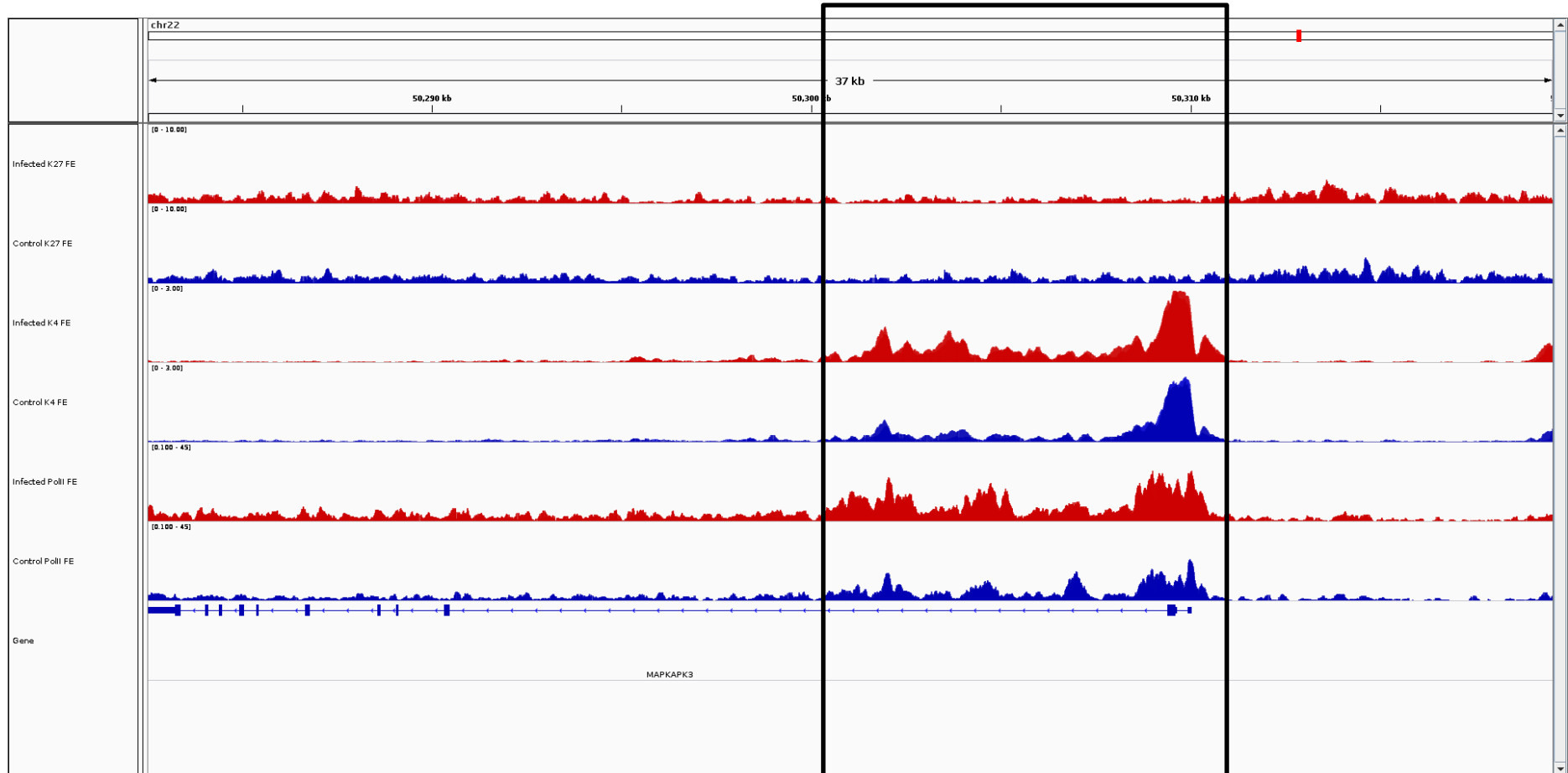
LYN



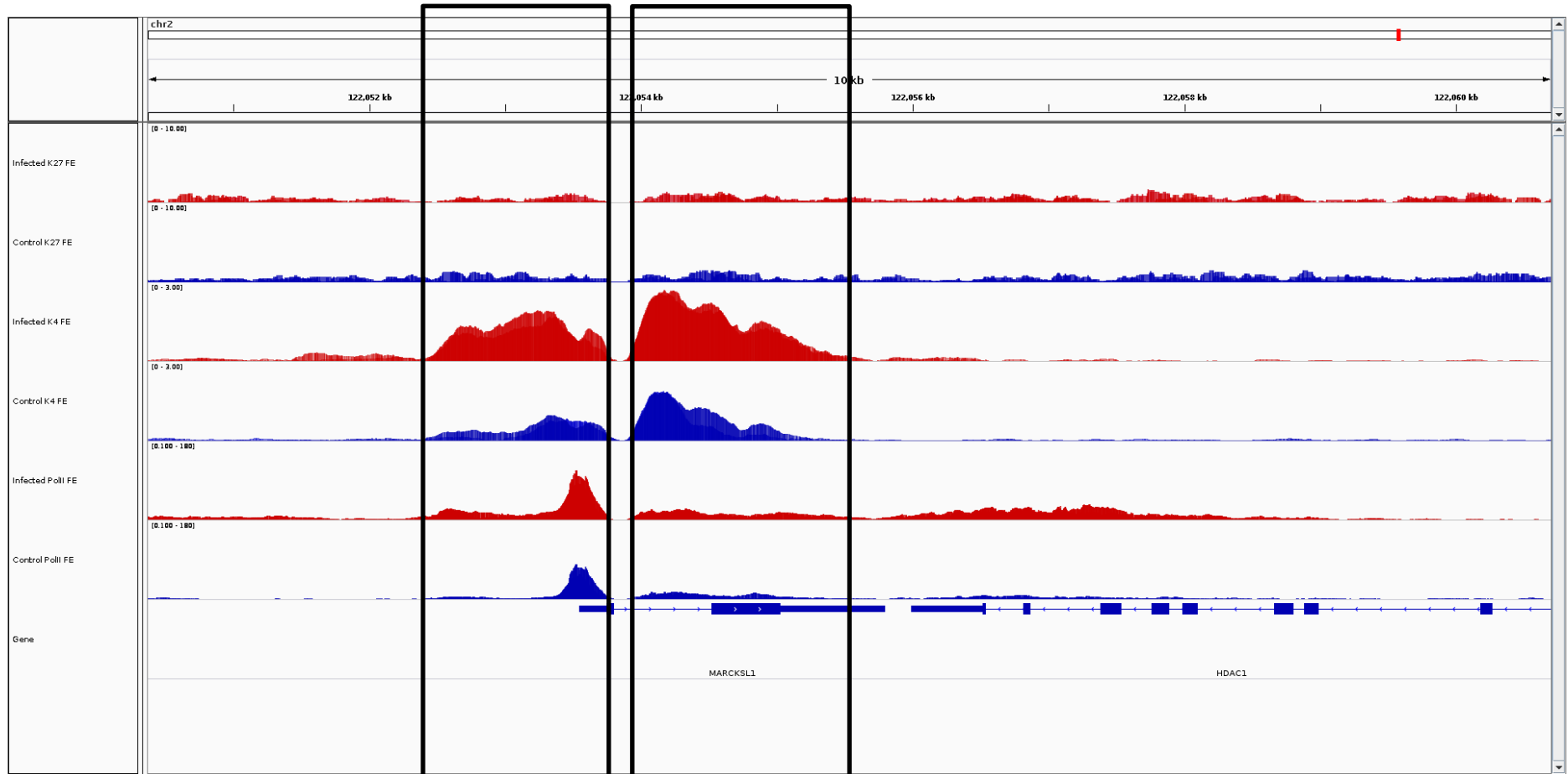
LYN3



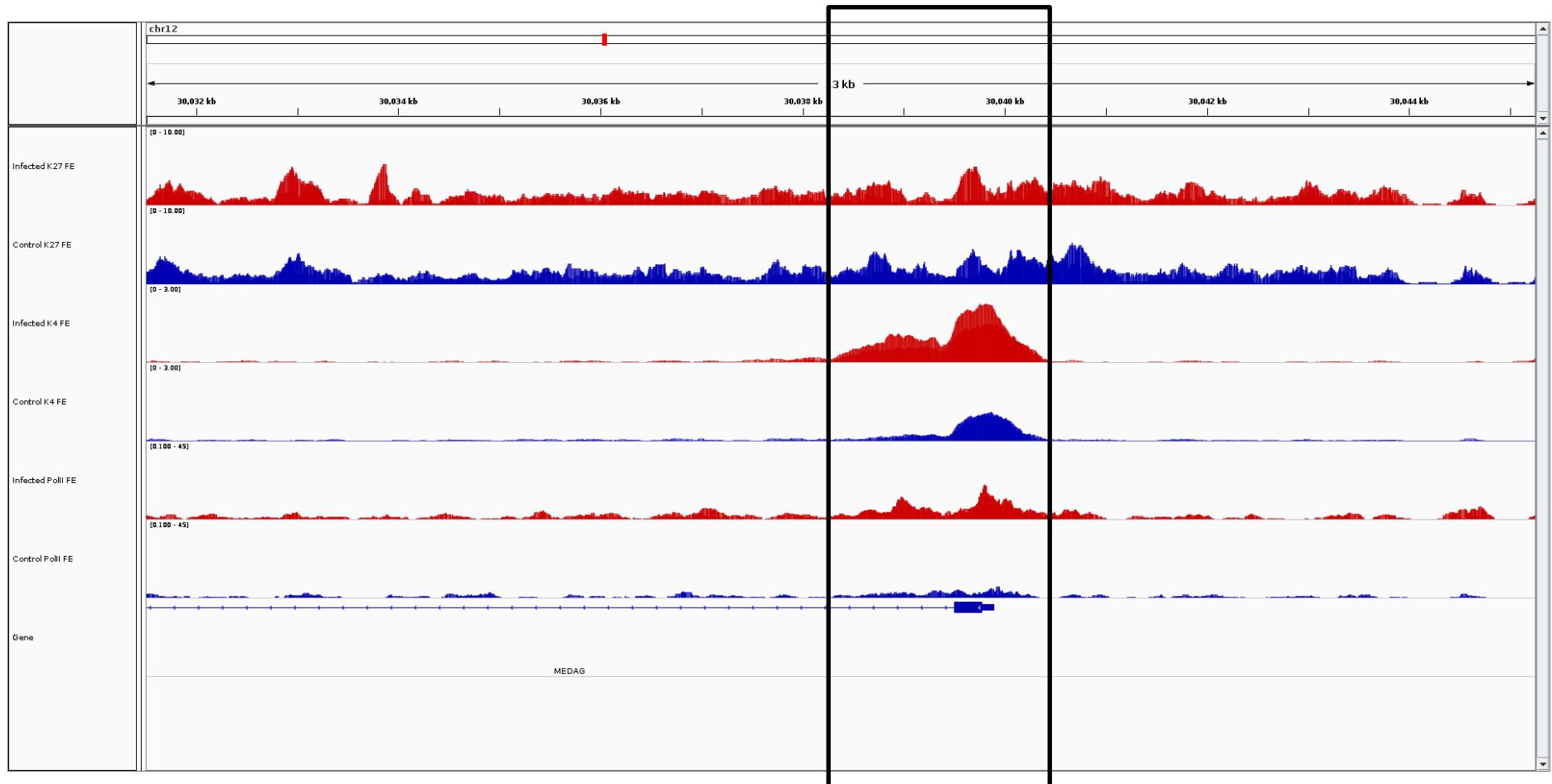
MAMLD1



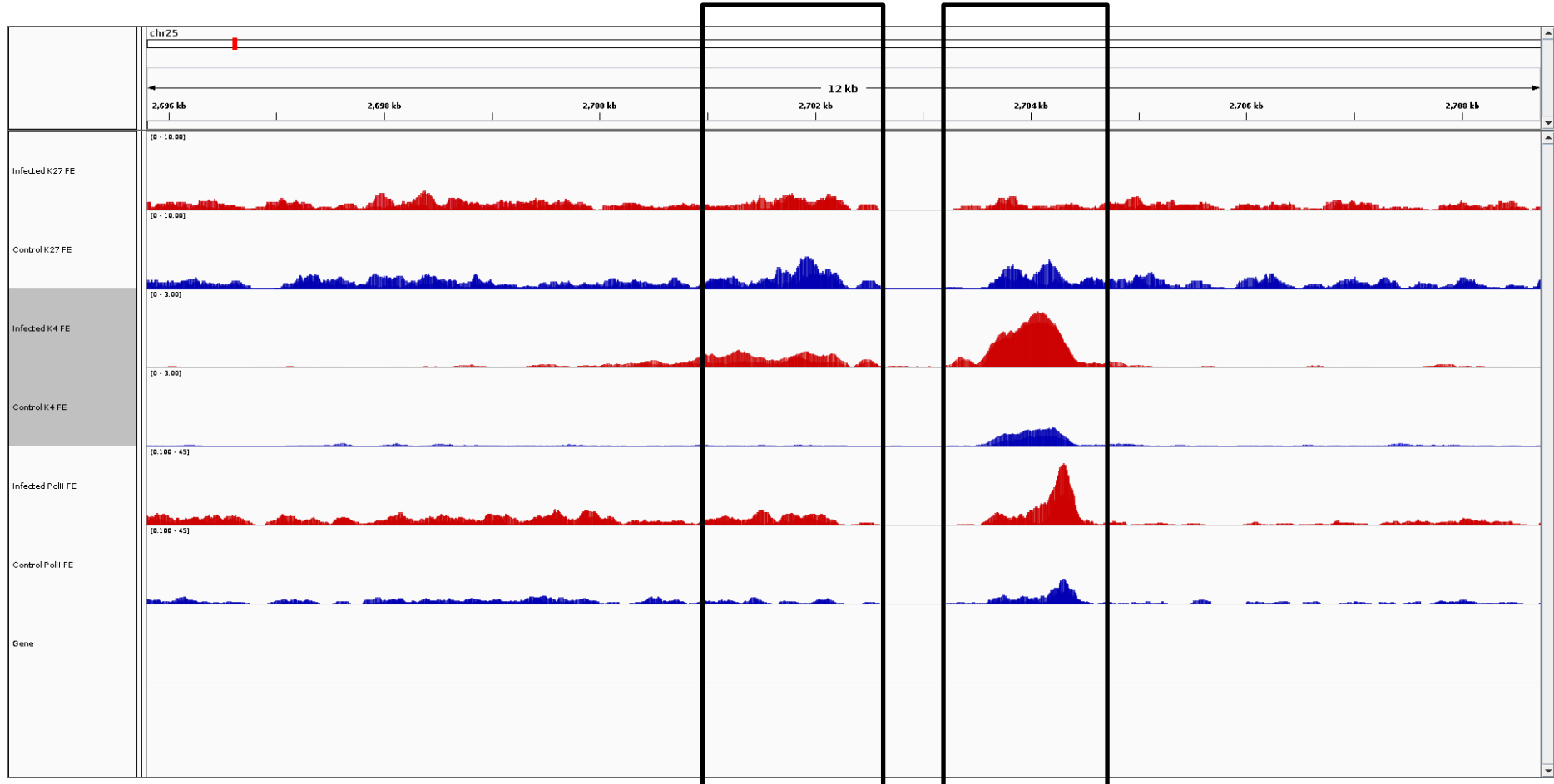
MAPKAPK3



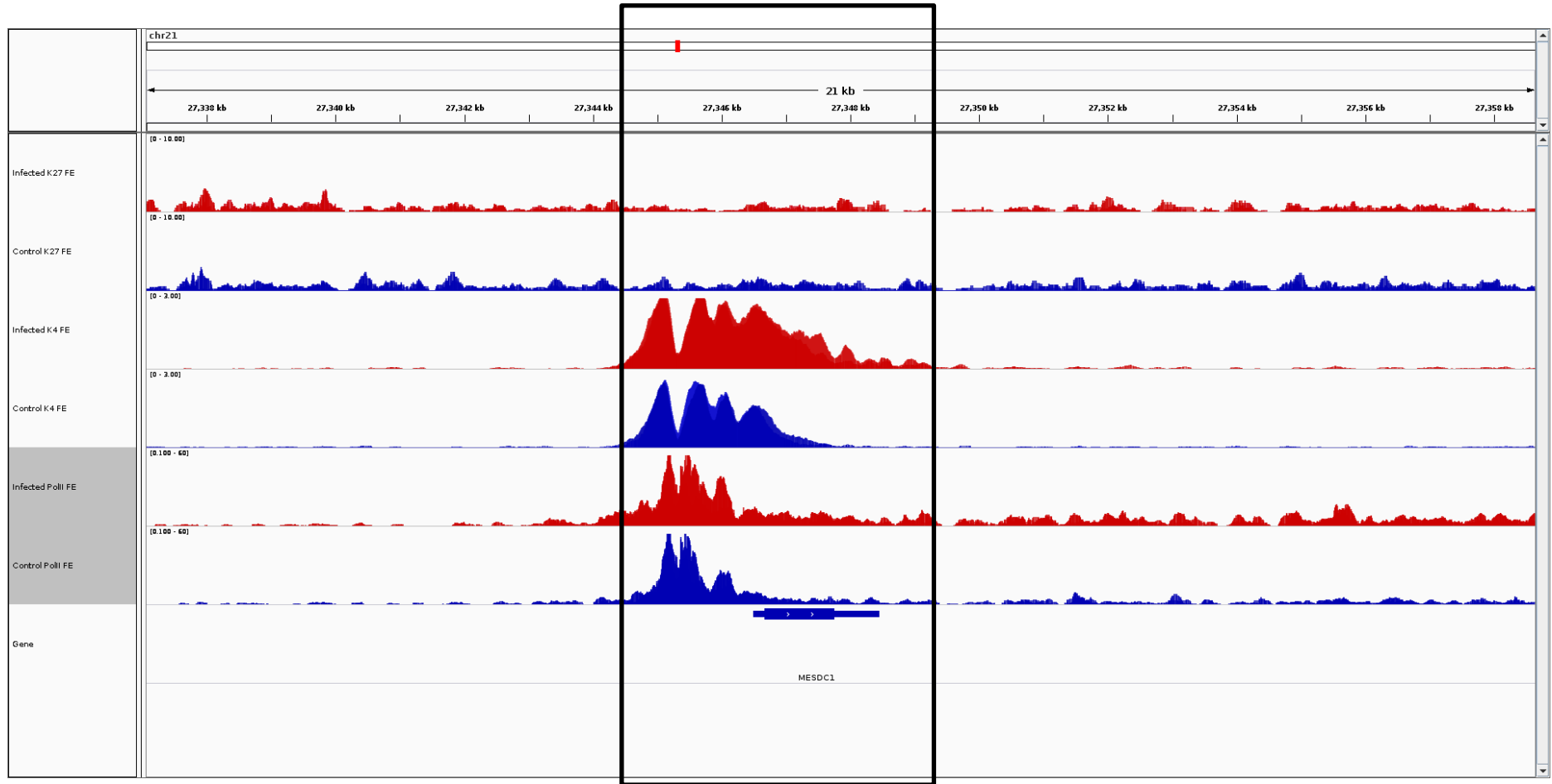
MARCKSL1



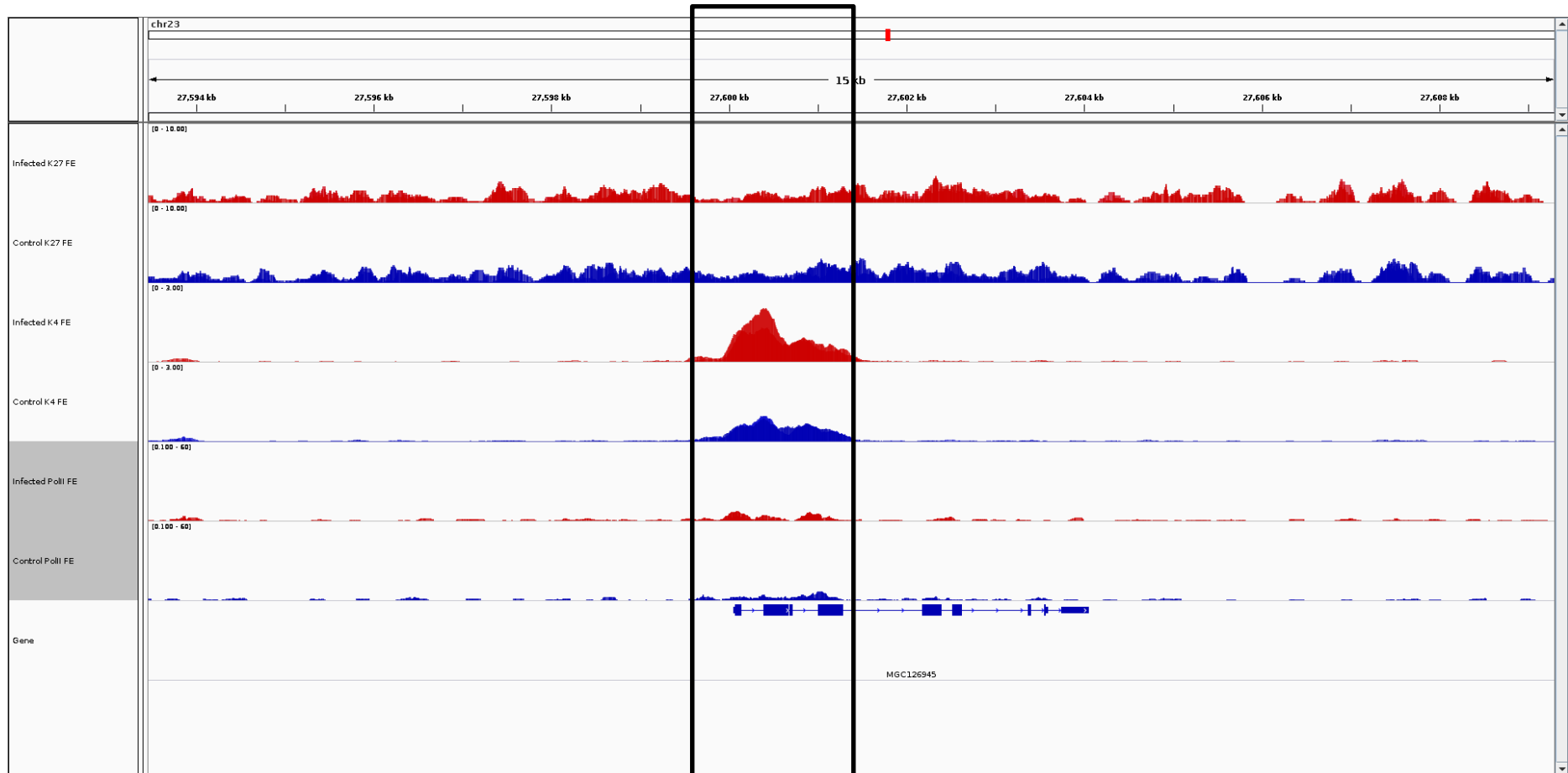
MEDAG



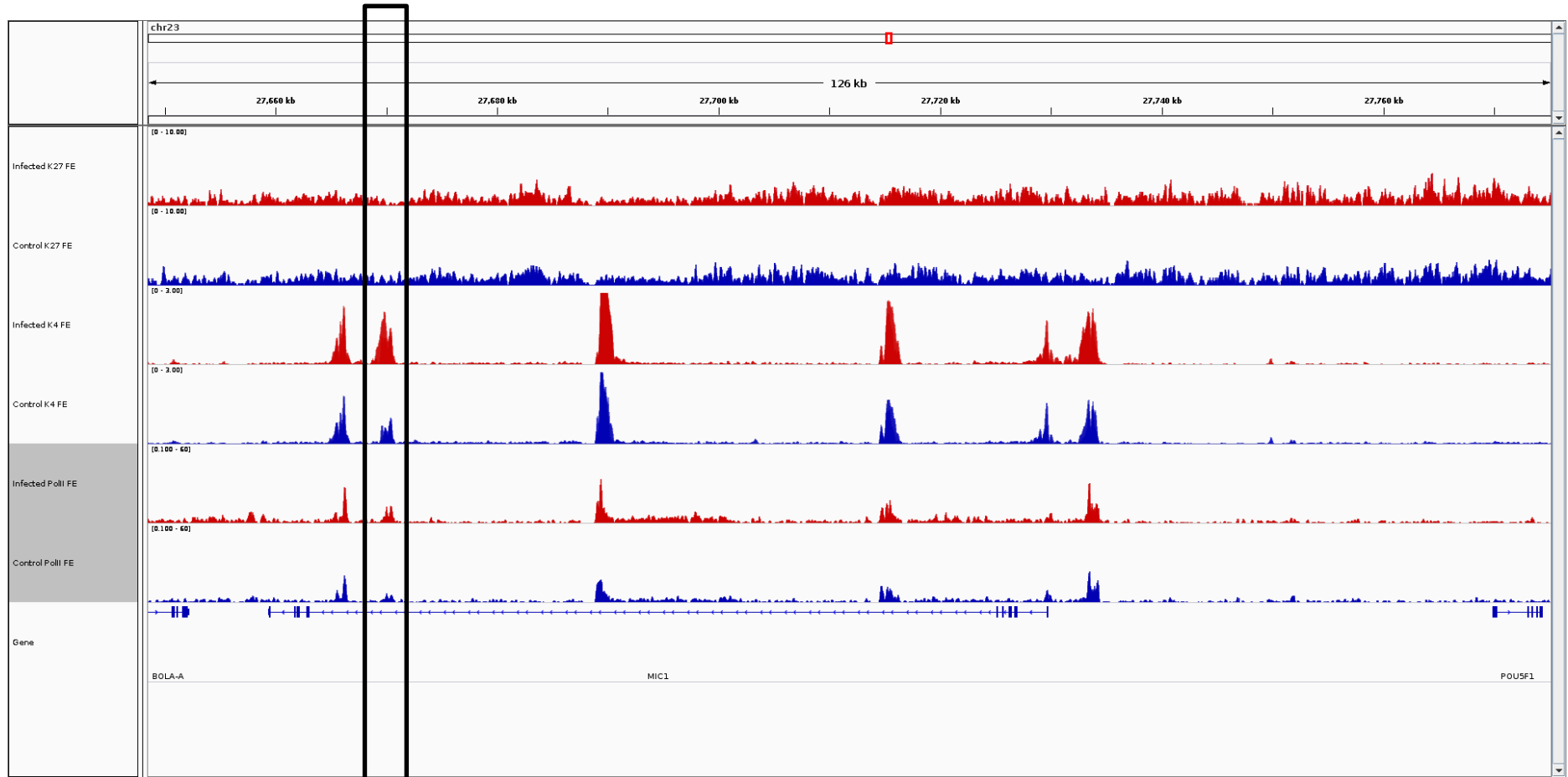
MEFV



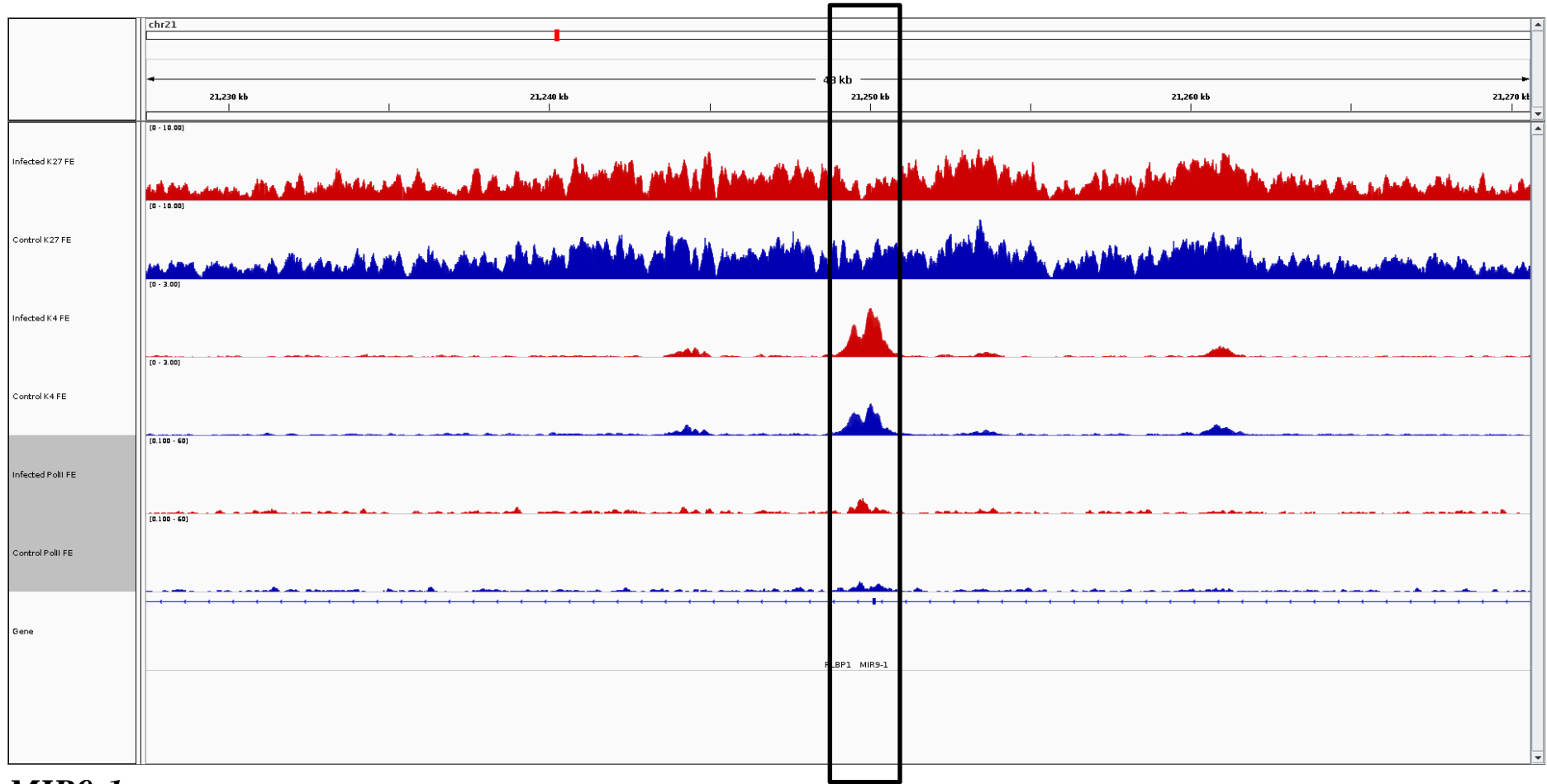
MESDC1



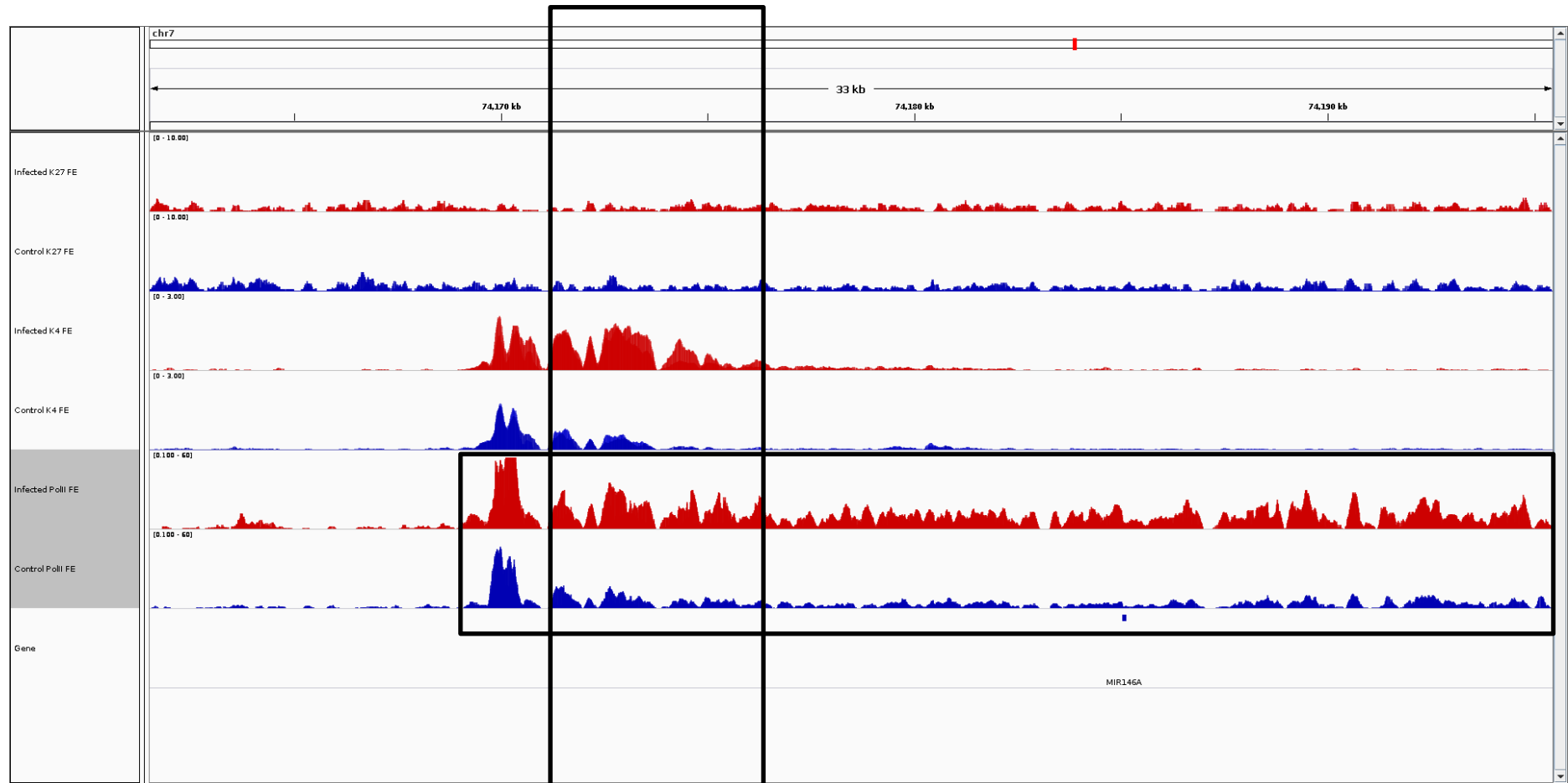
MGC126945



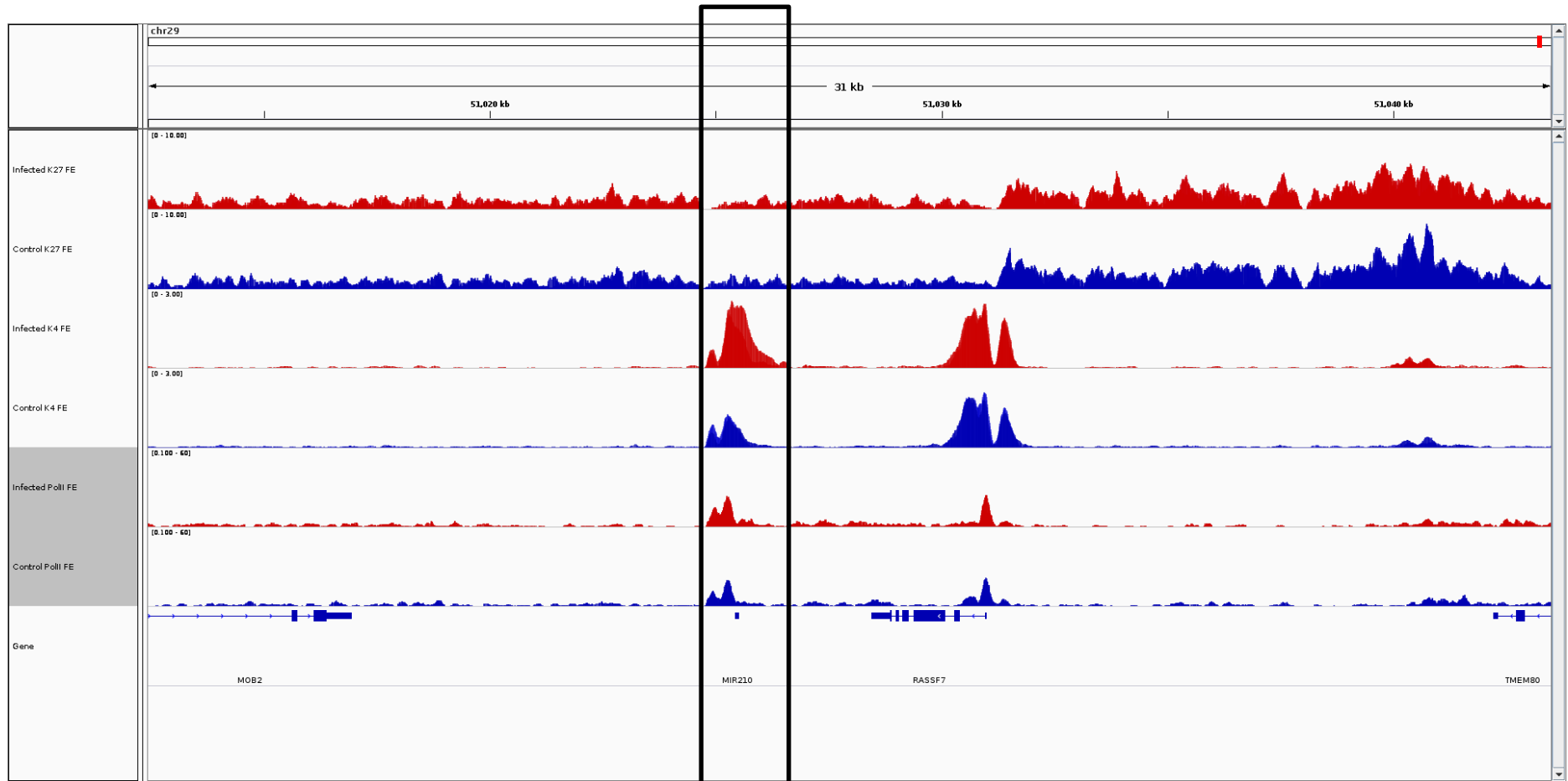
MIC1



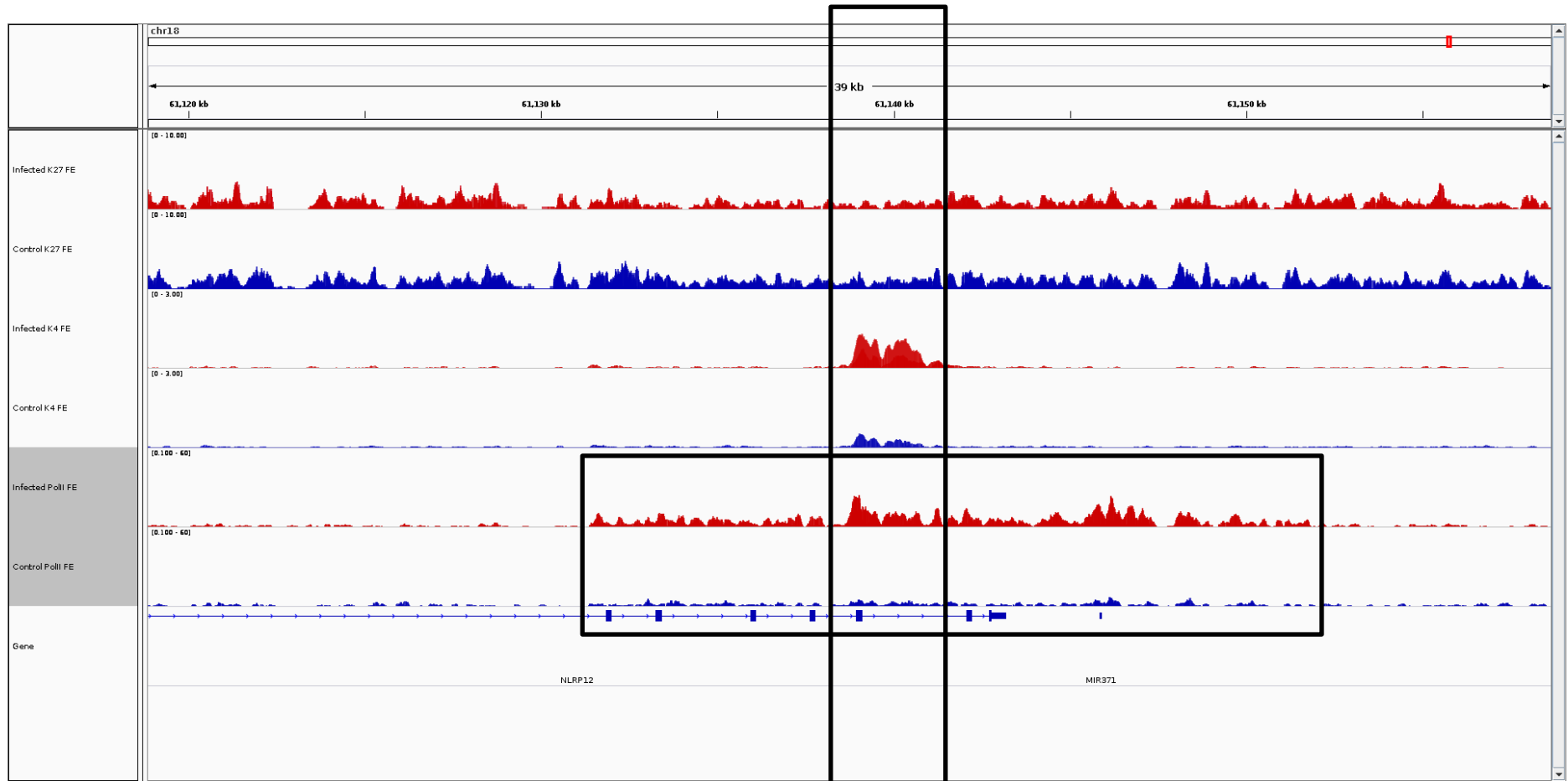
MIR9-1



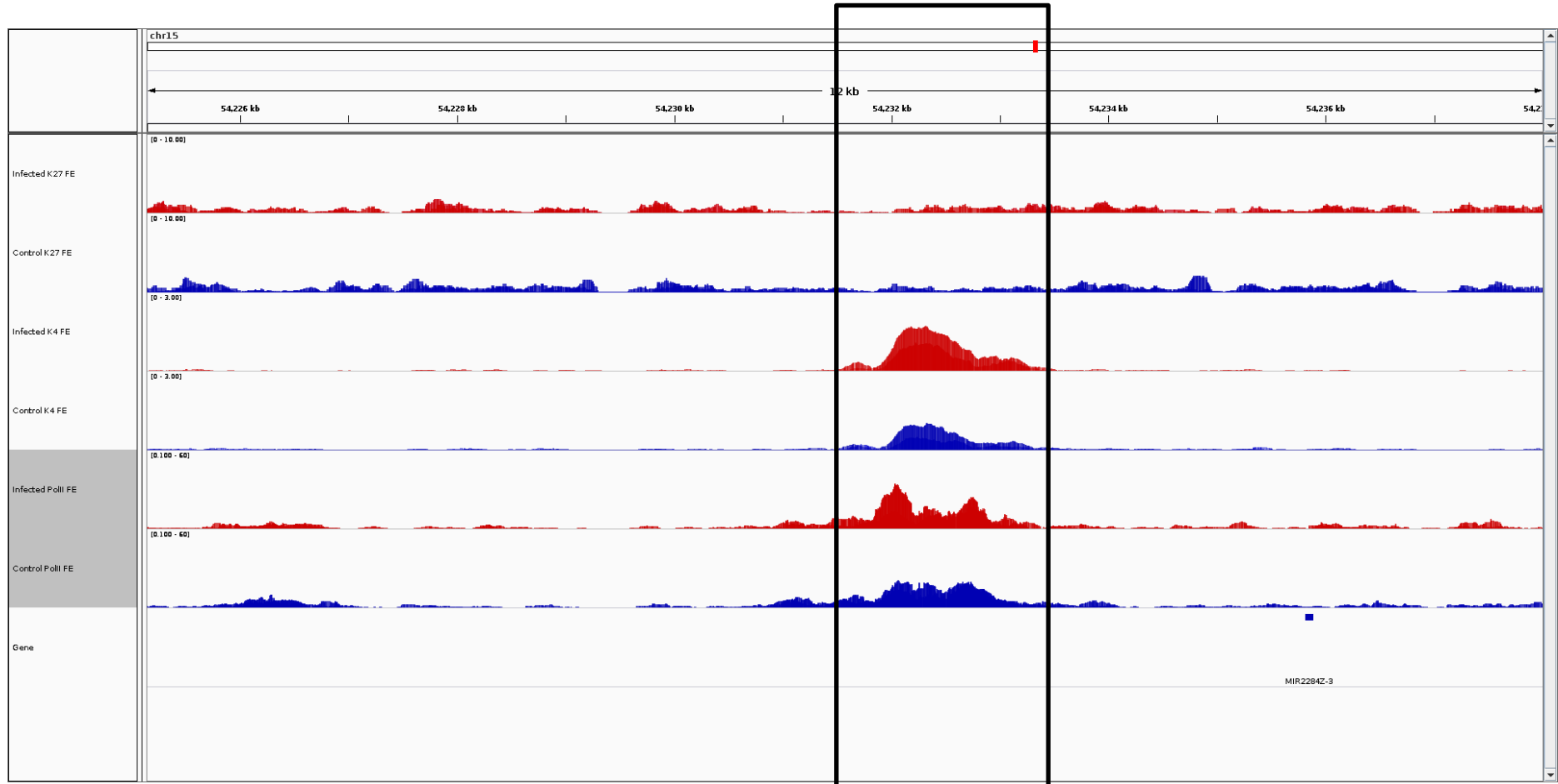
MIR146A



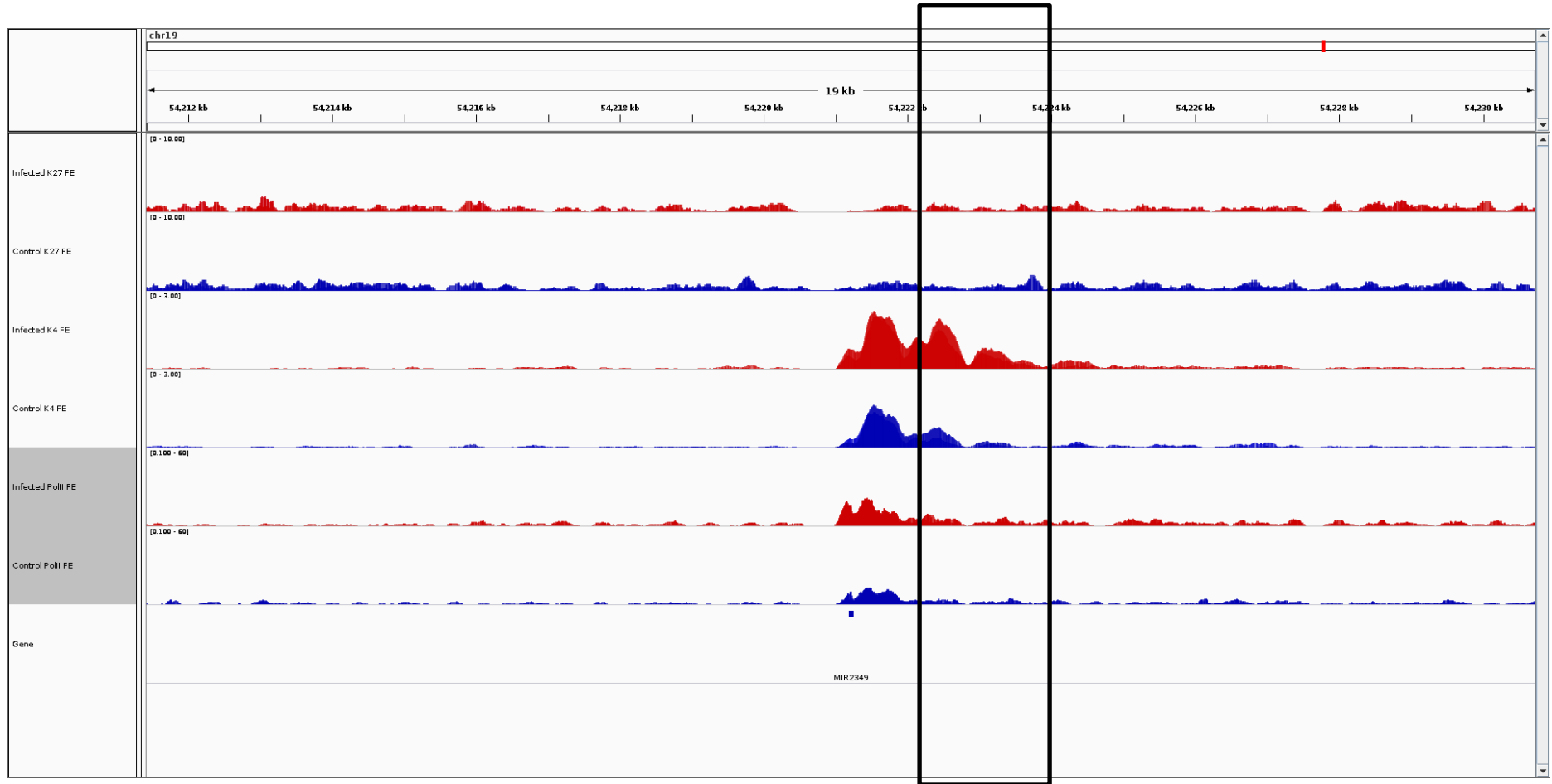
MIR210



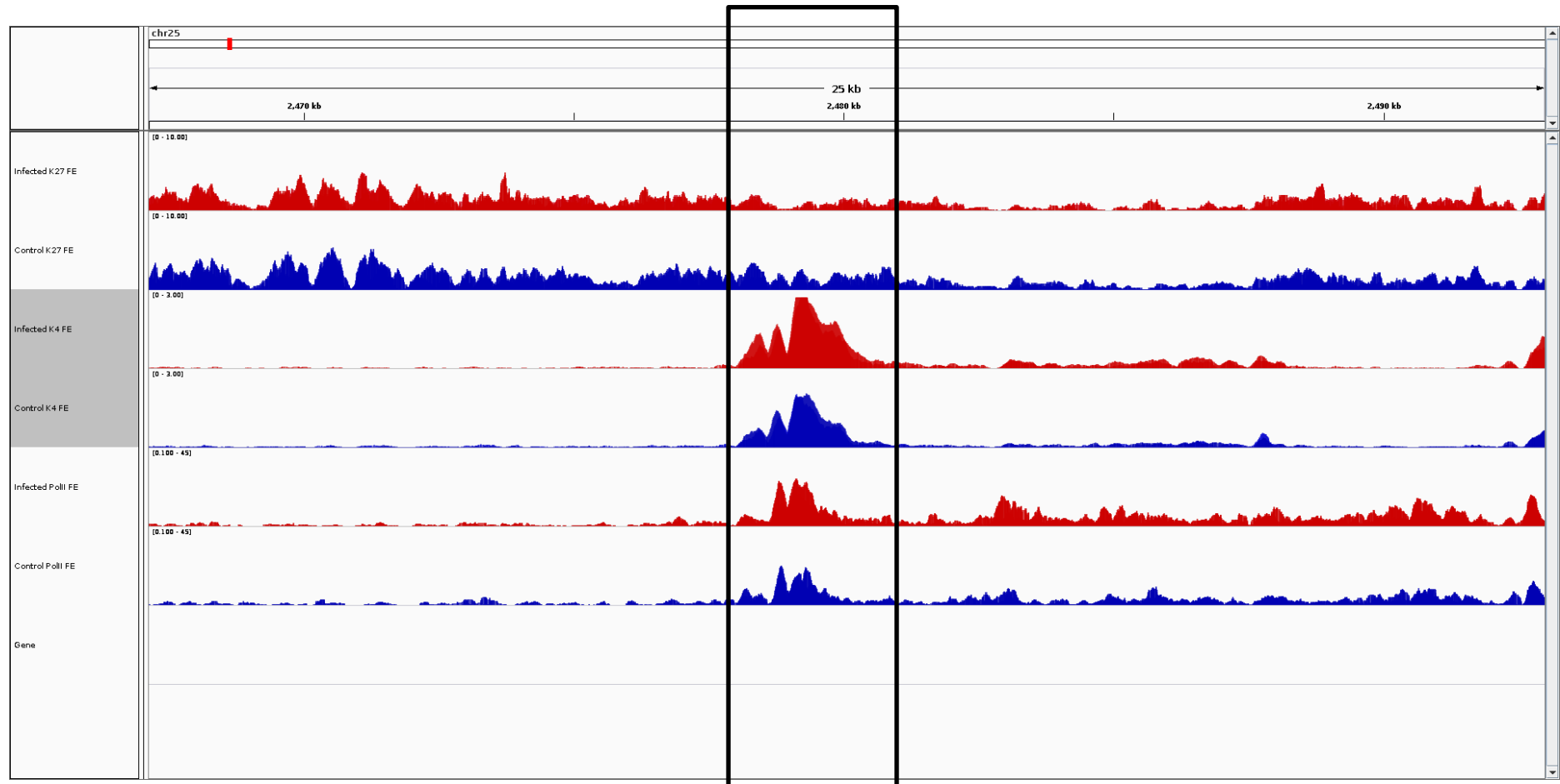
MIR371



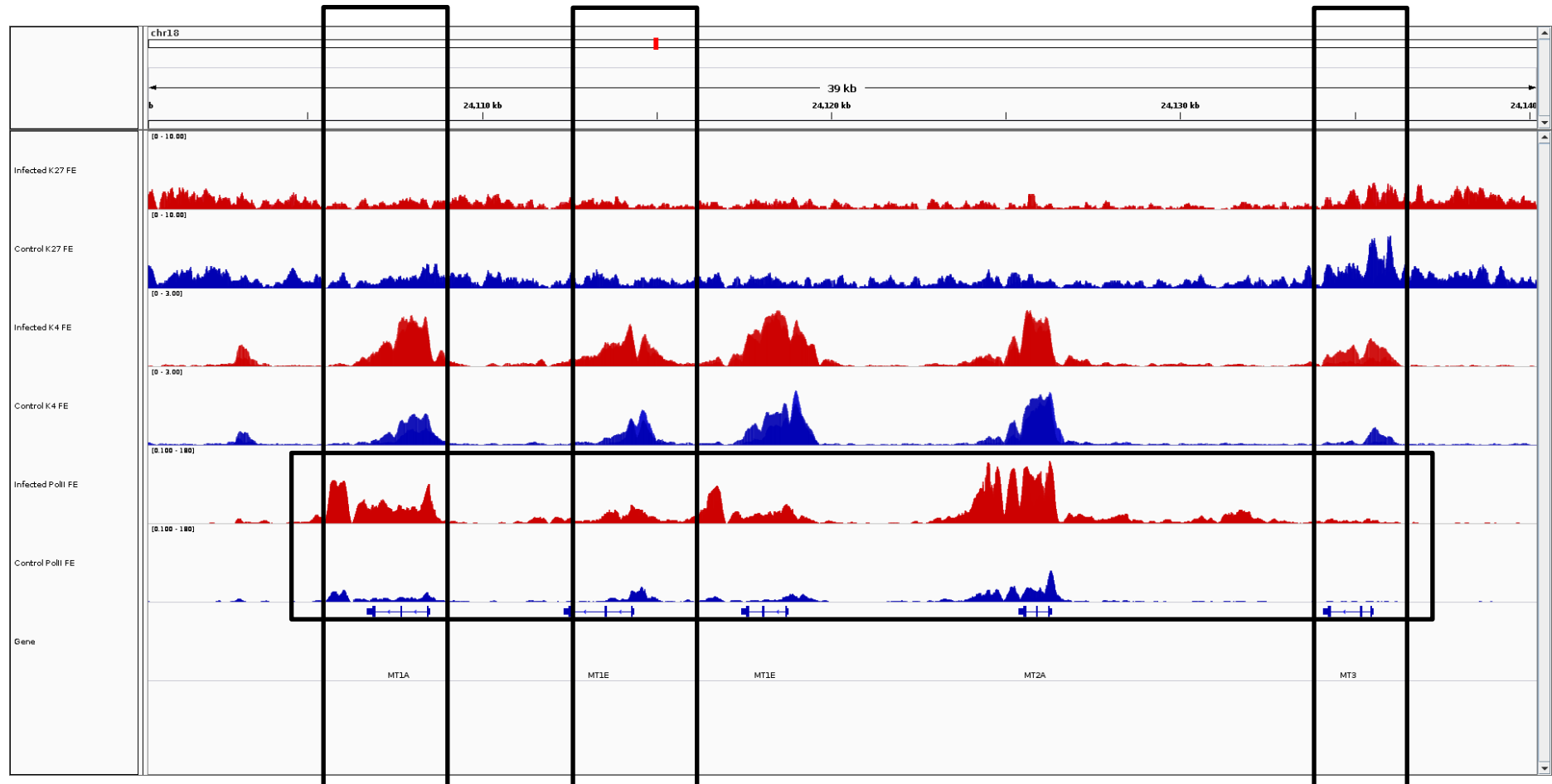
MIR2284Z-3



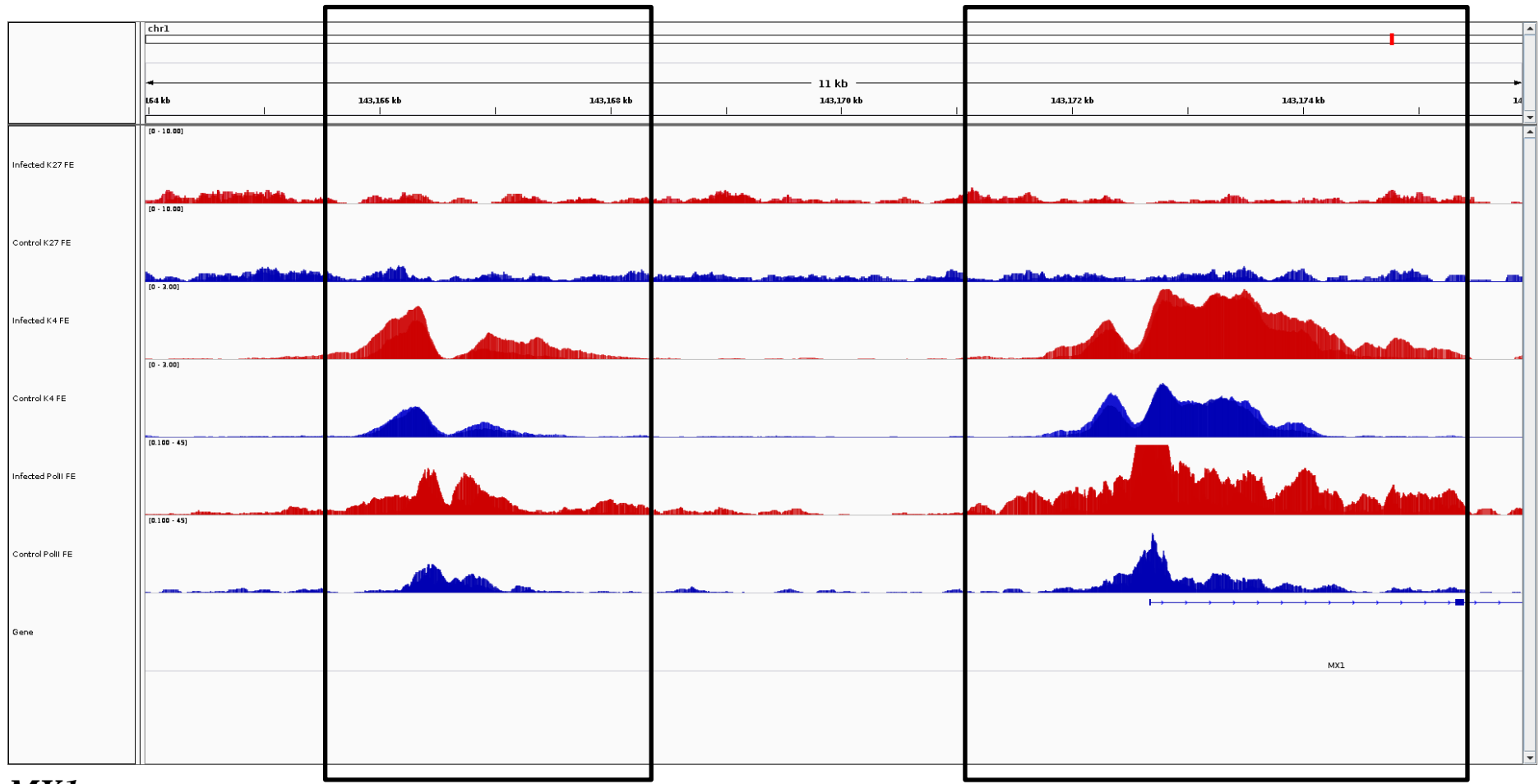
MIR2349



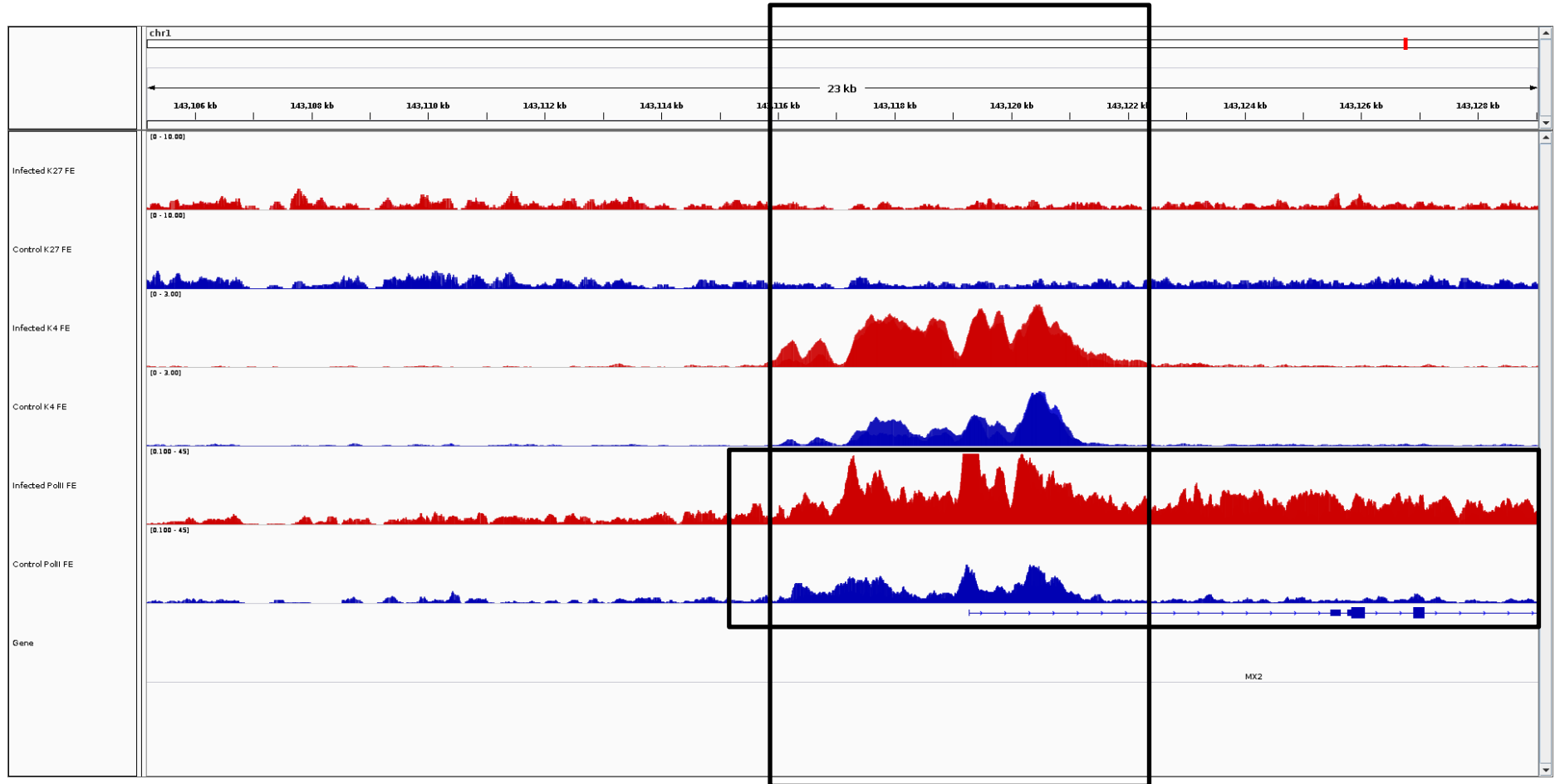
MMP25



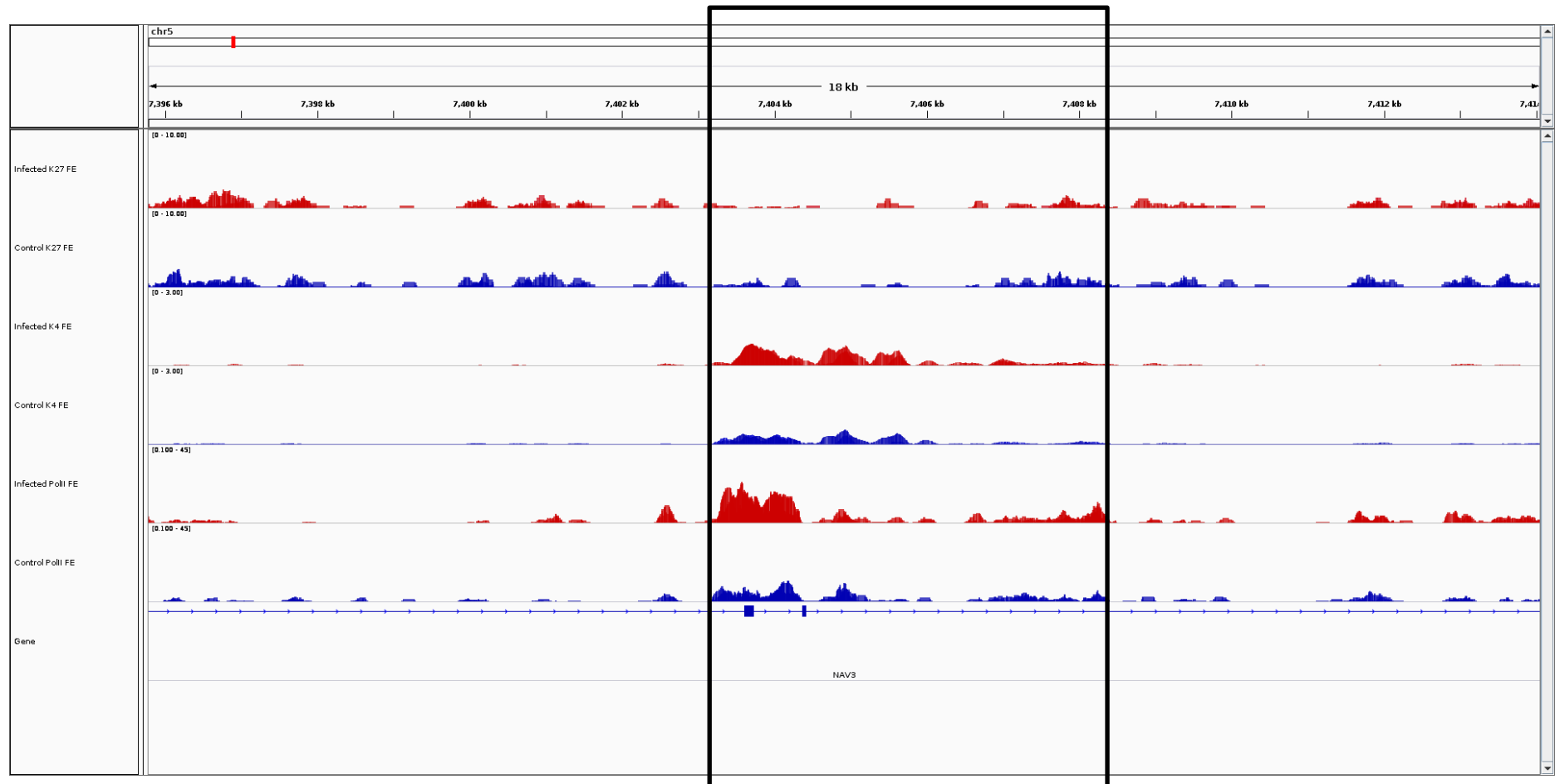
MT1, MT2, MT3

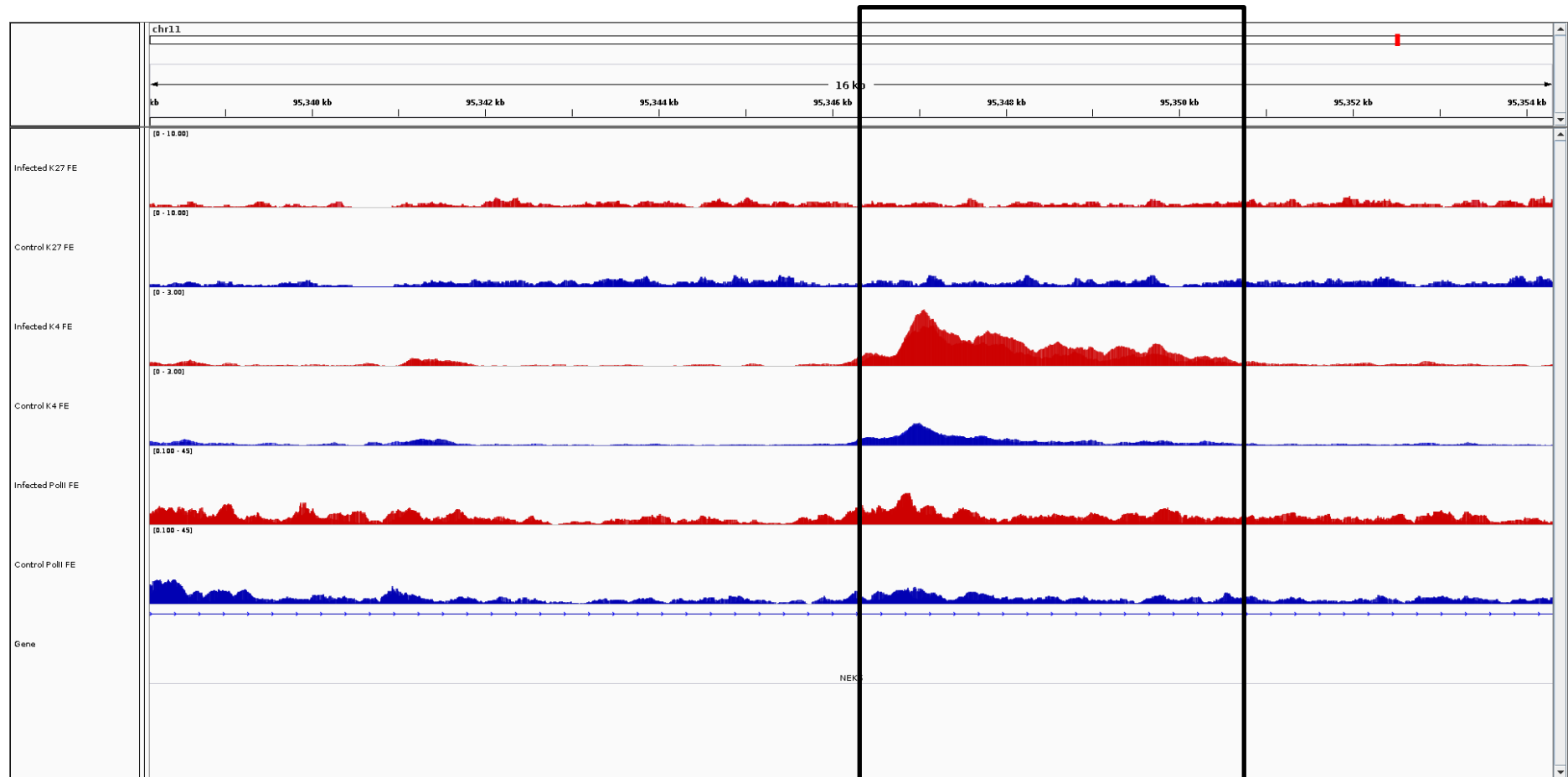


MX1

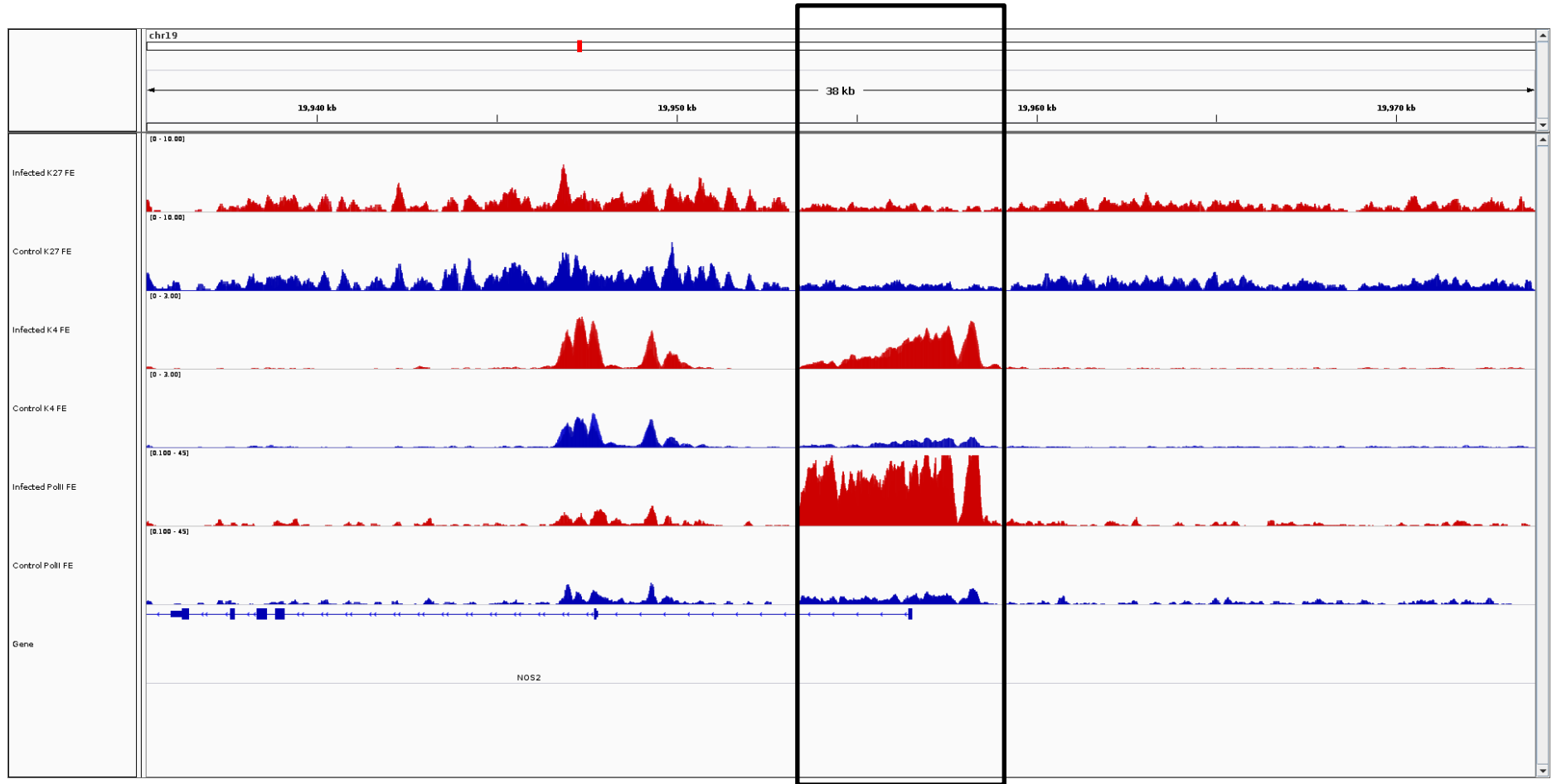


MX2

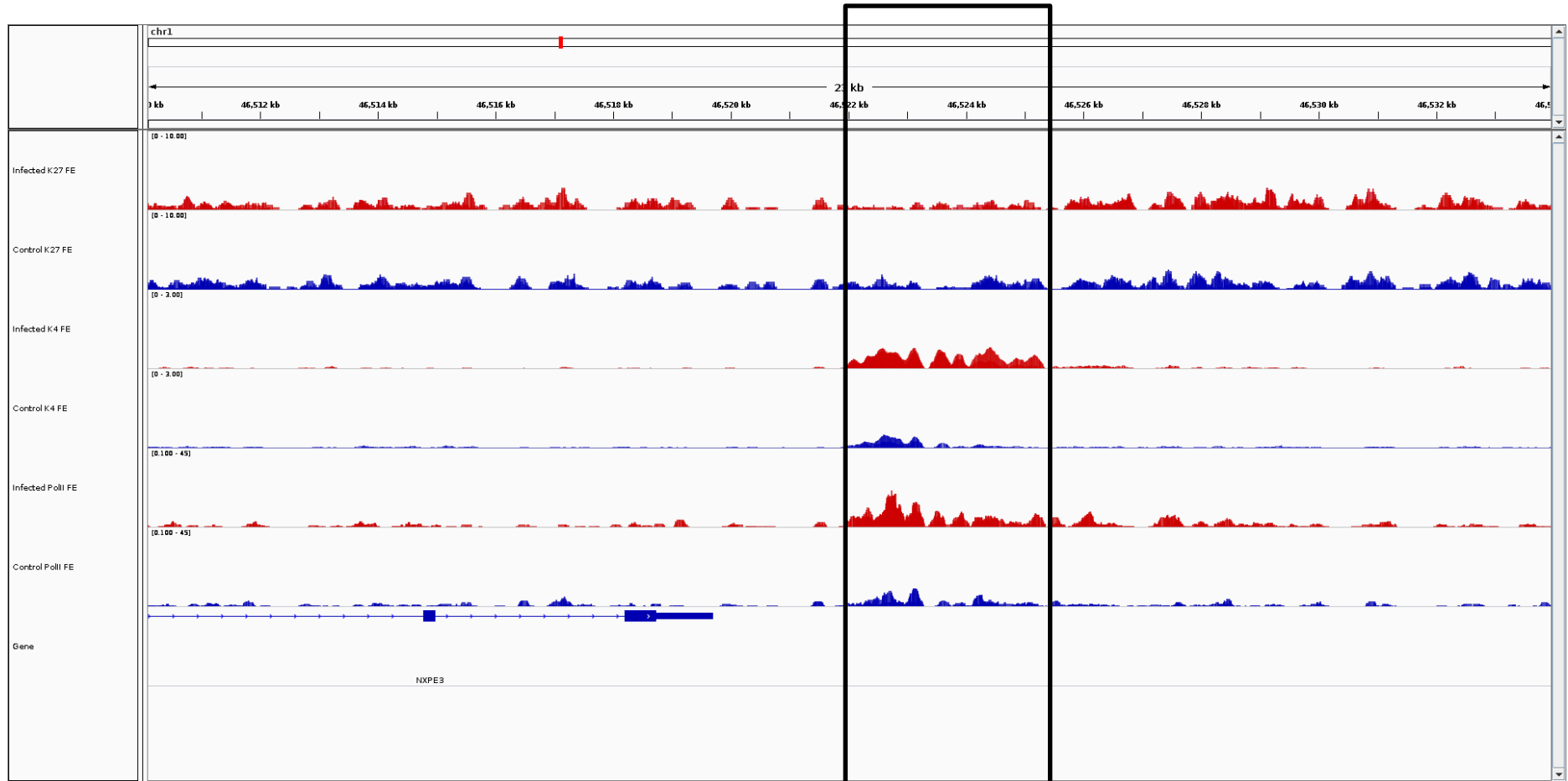
**NAV3**



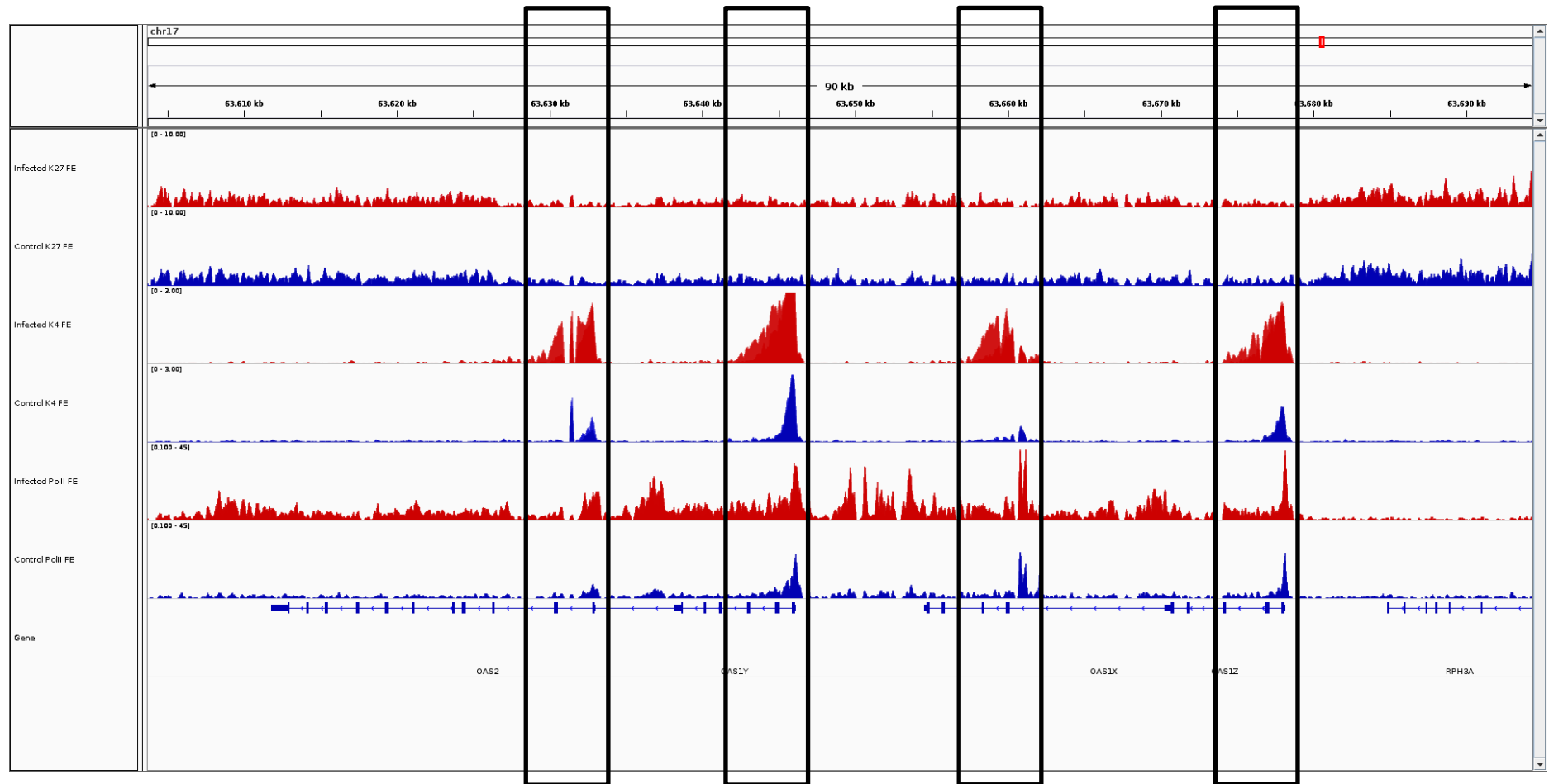
NEK6



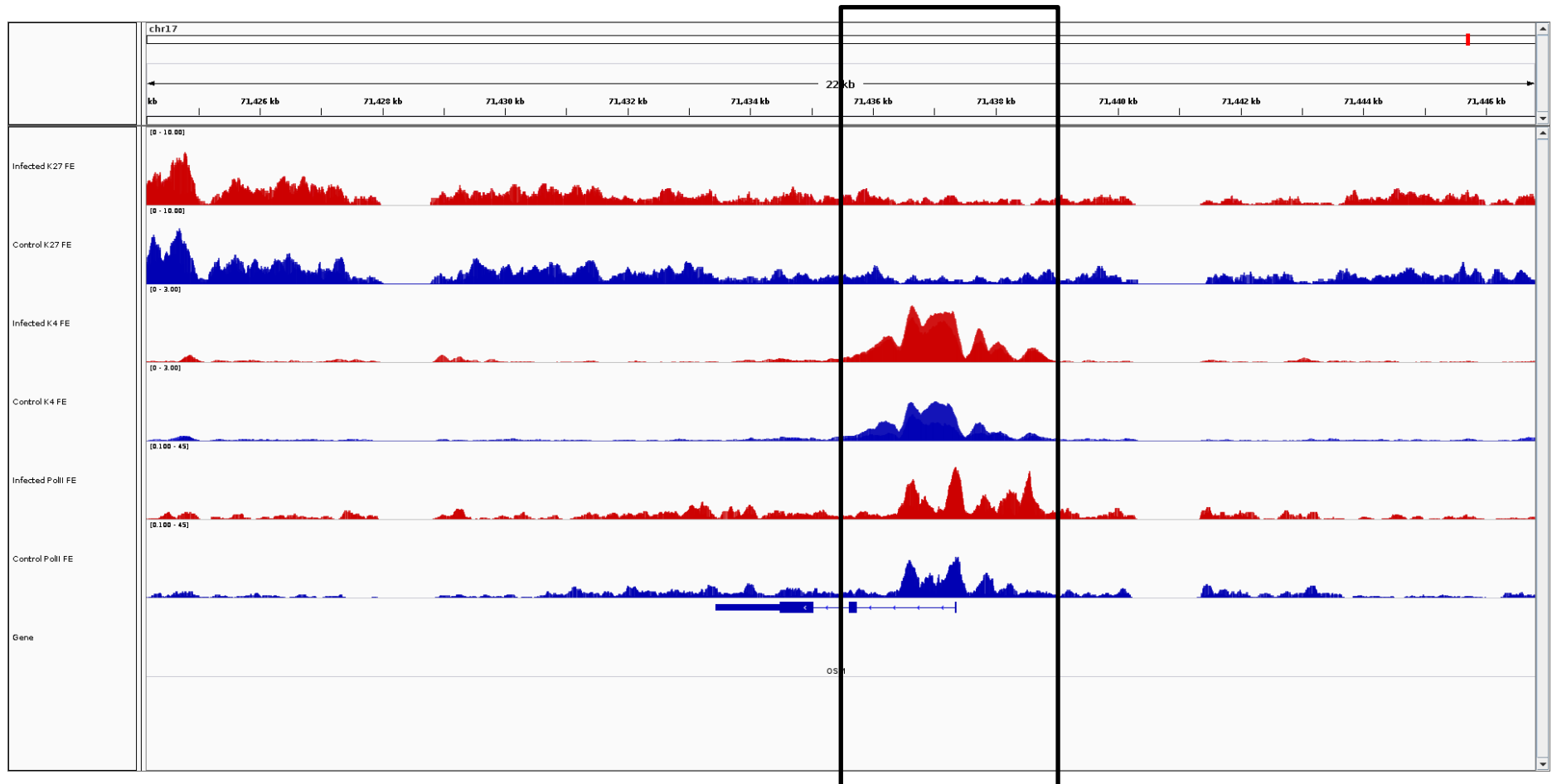
NOS2



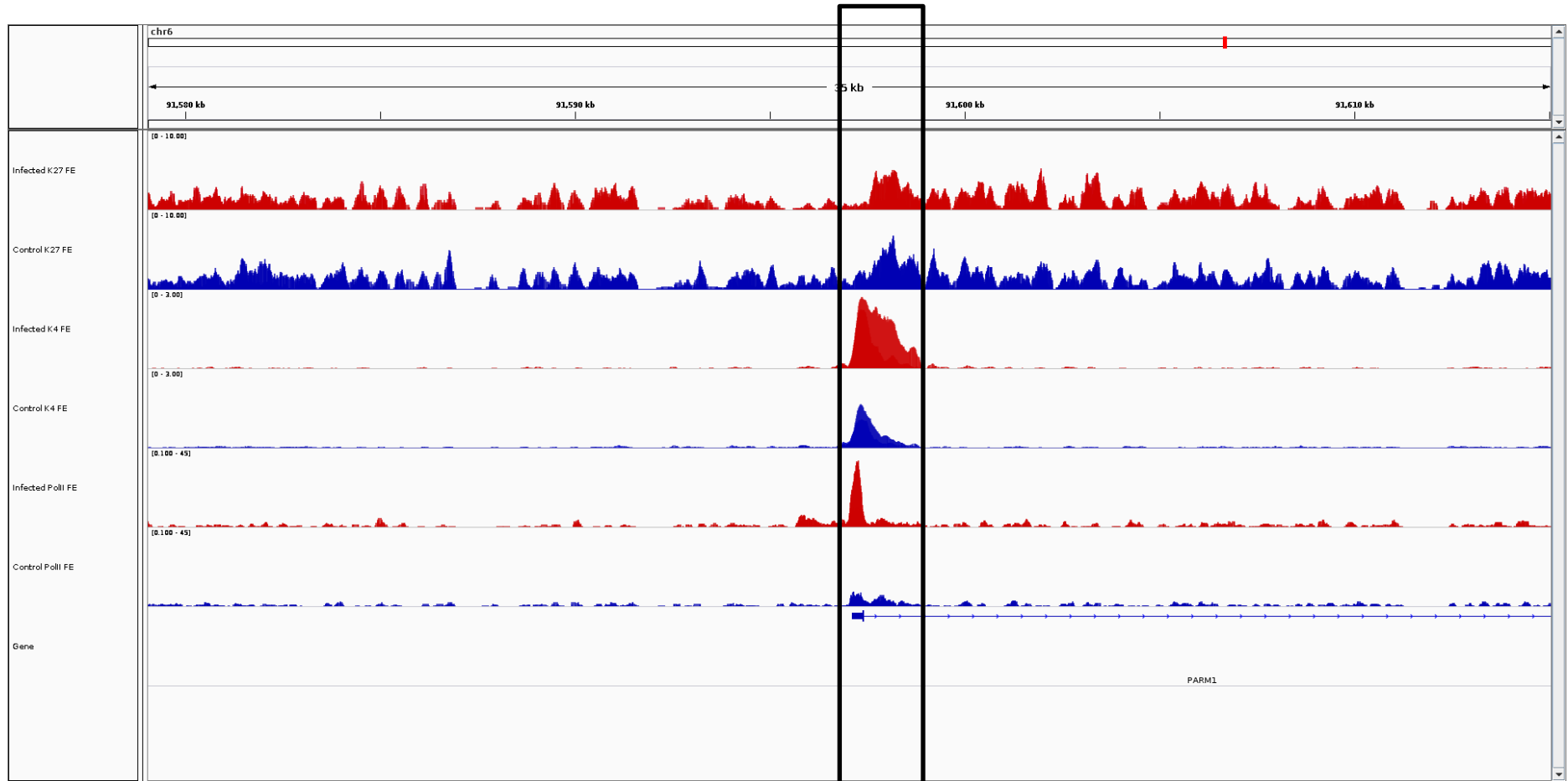
NXPE3



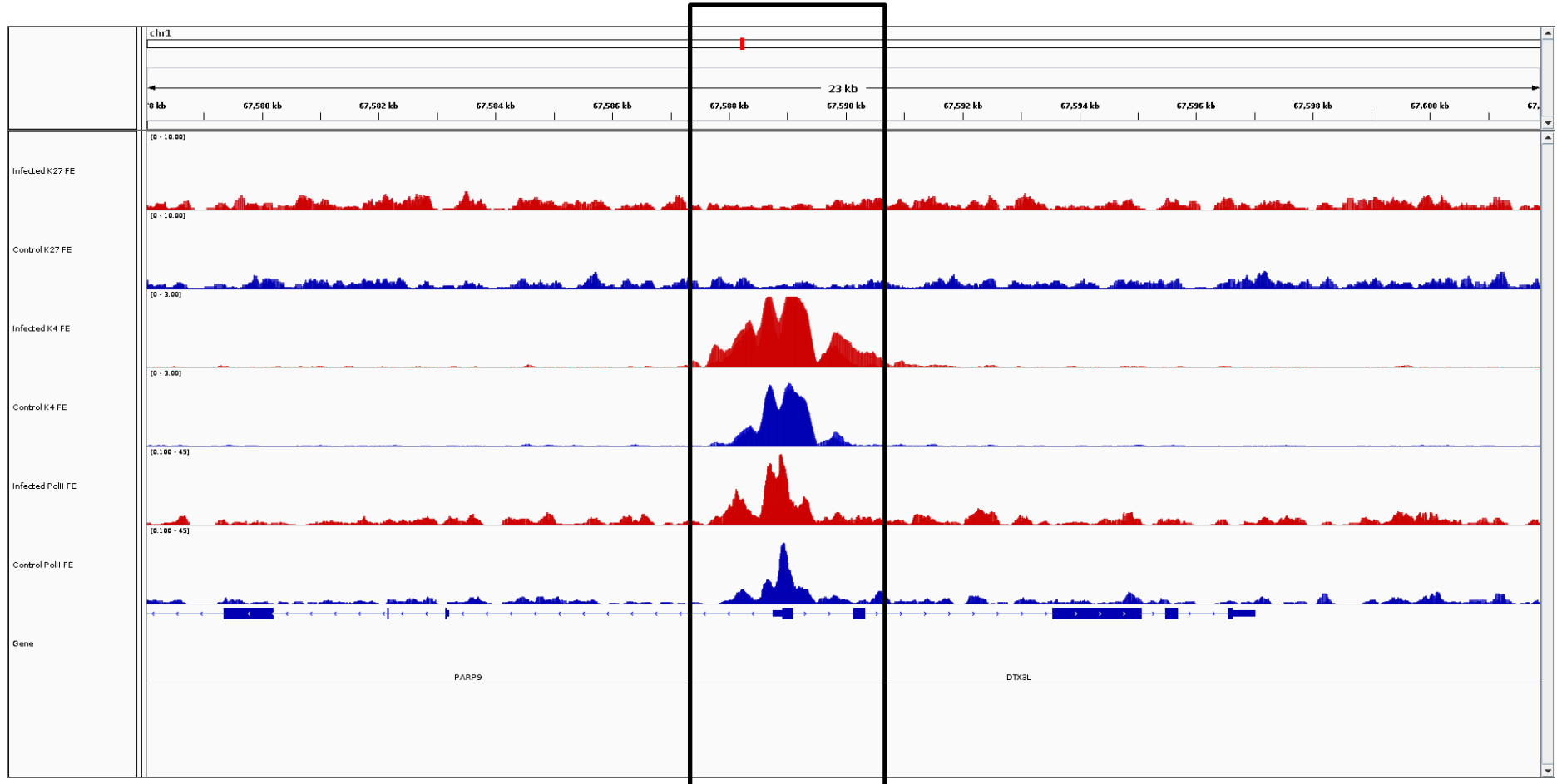
OAS



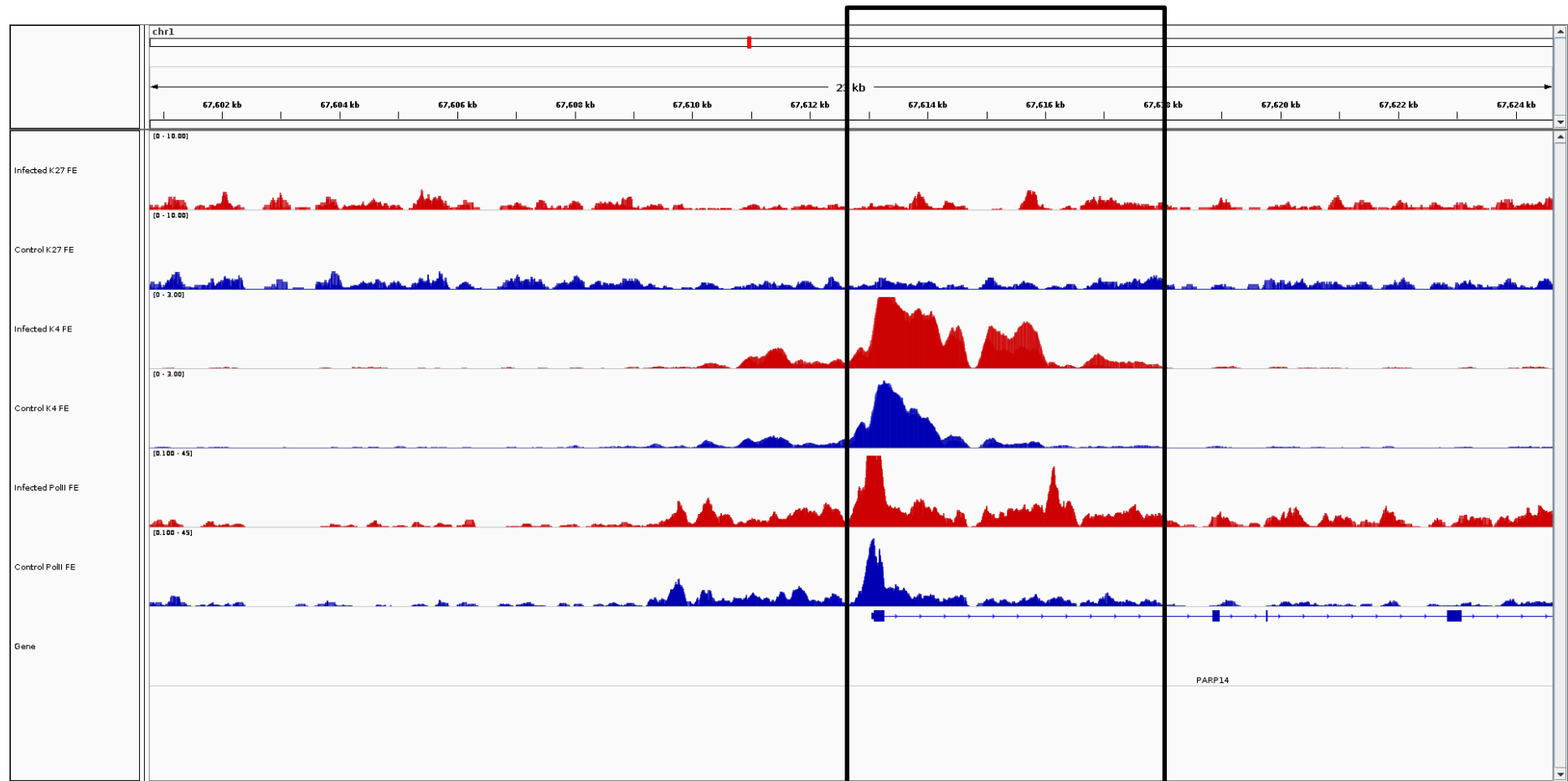
OSM



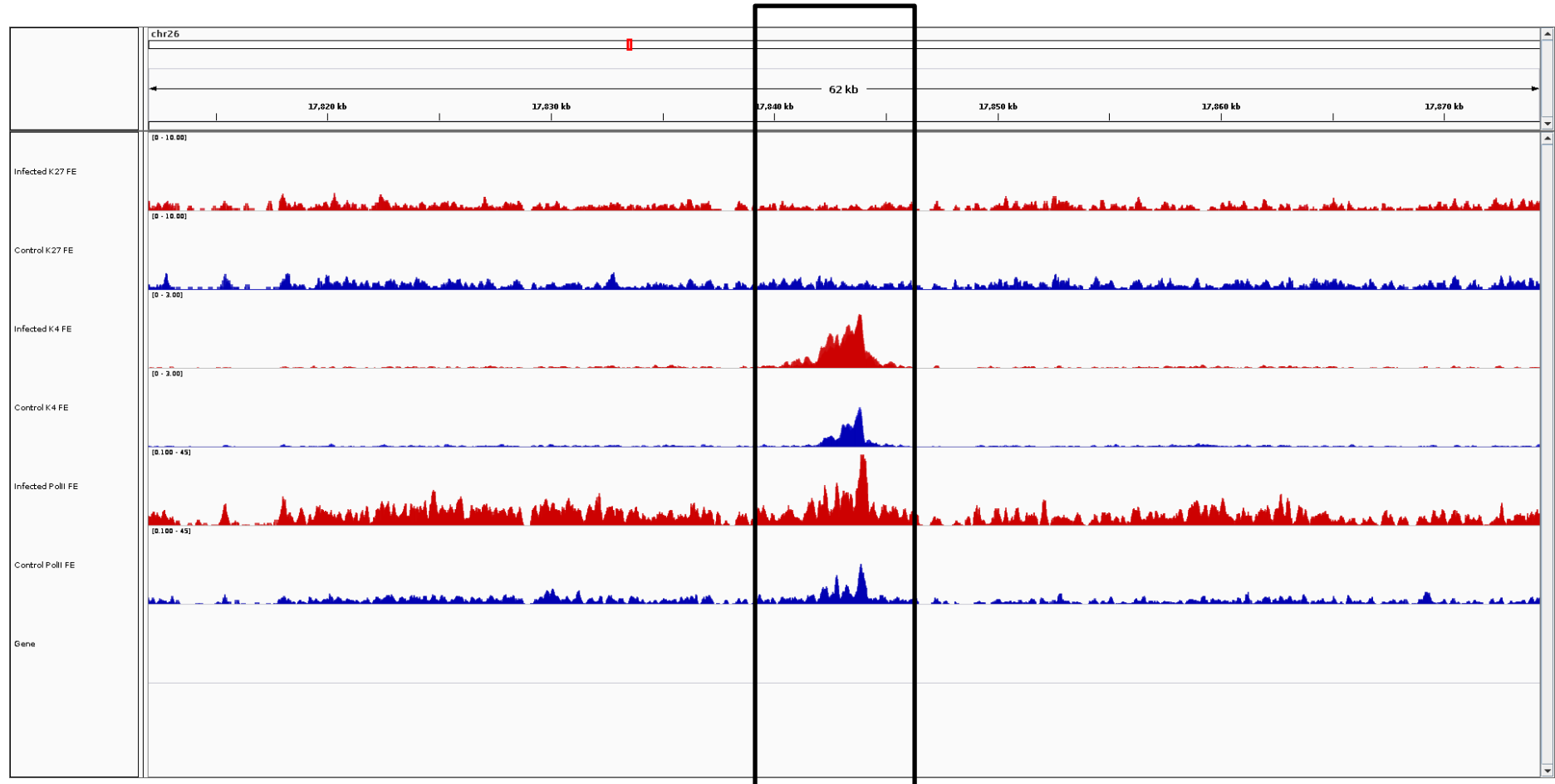
PARM1



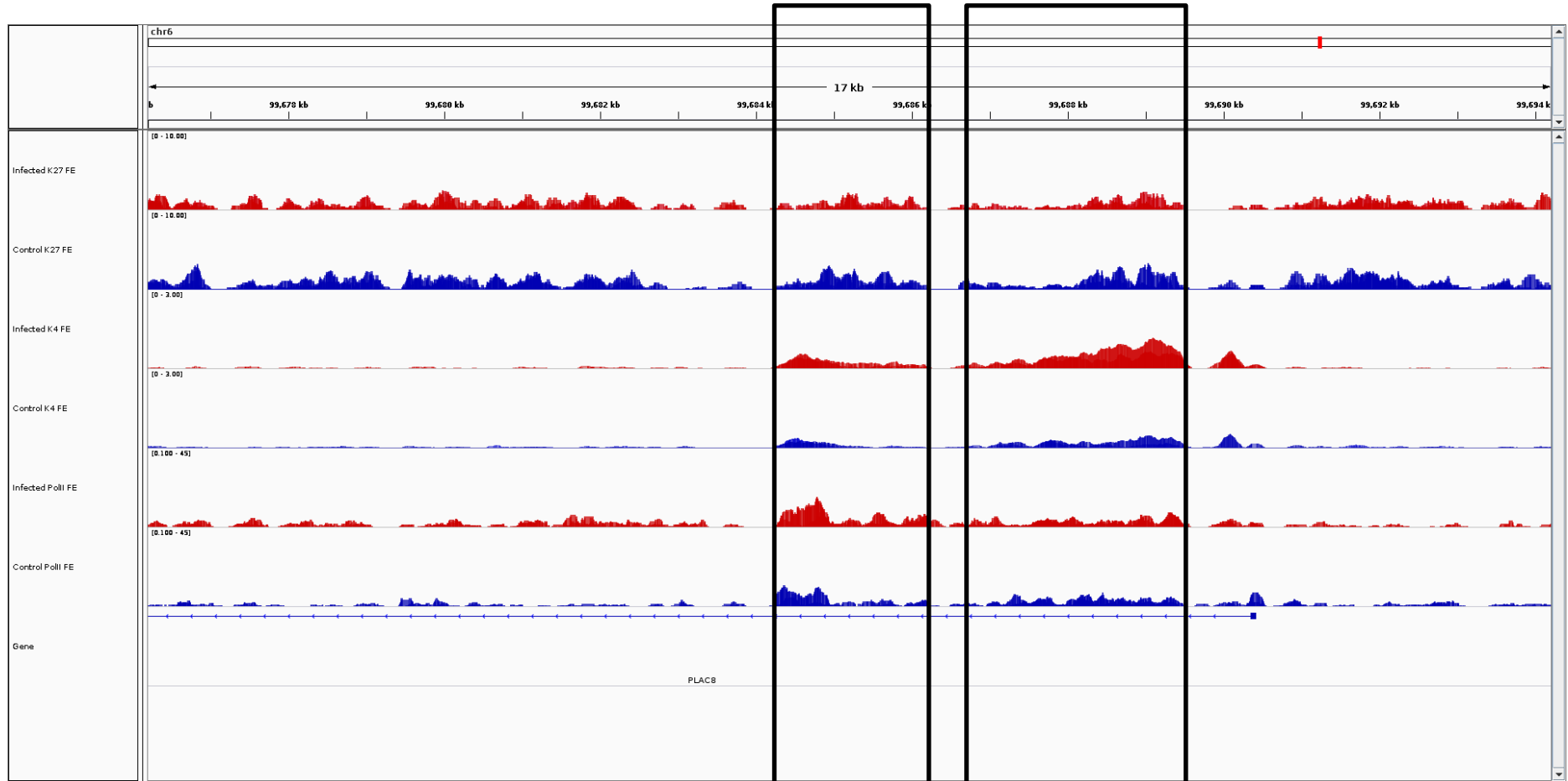
PARP9



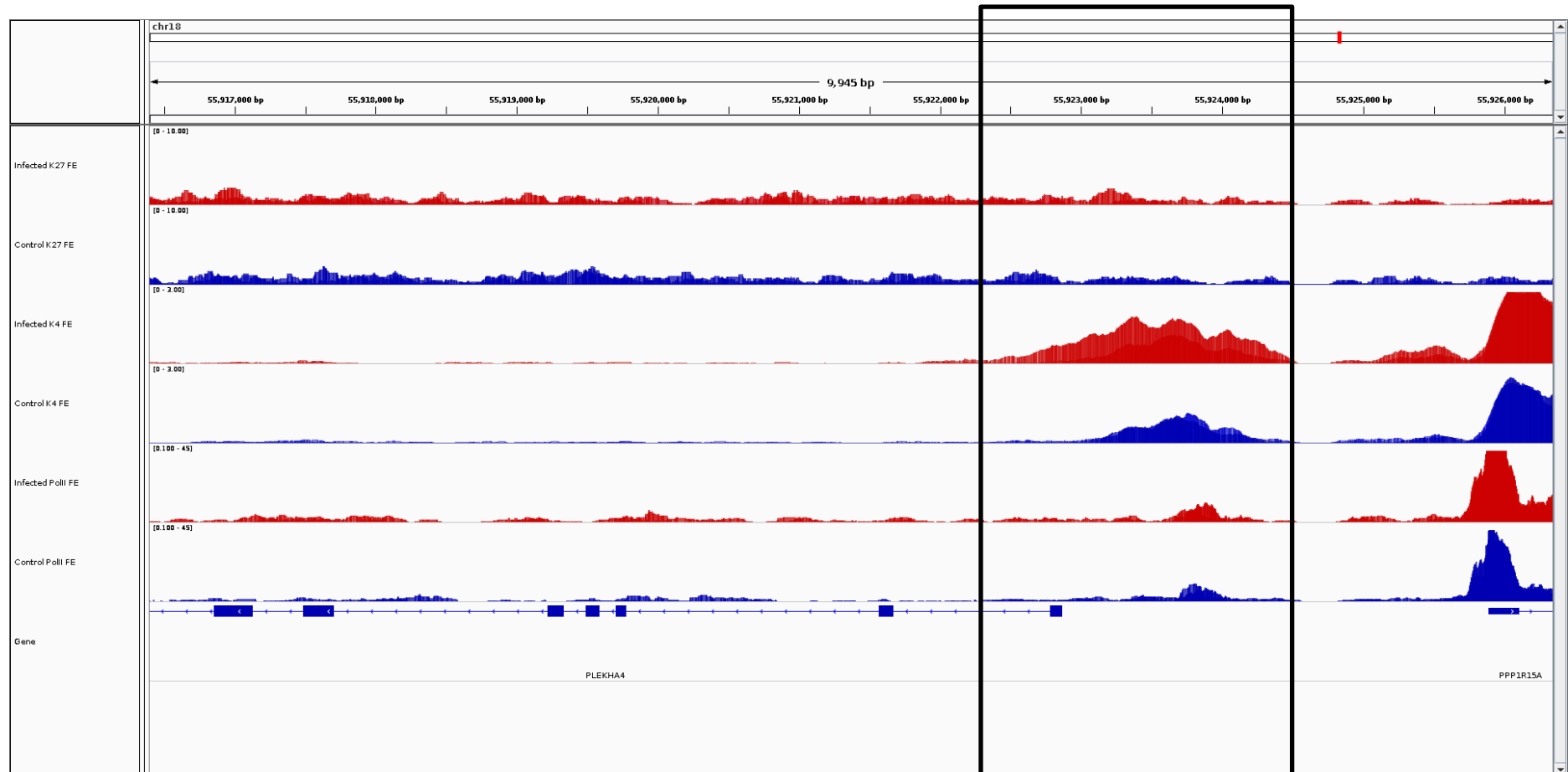
PARP14



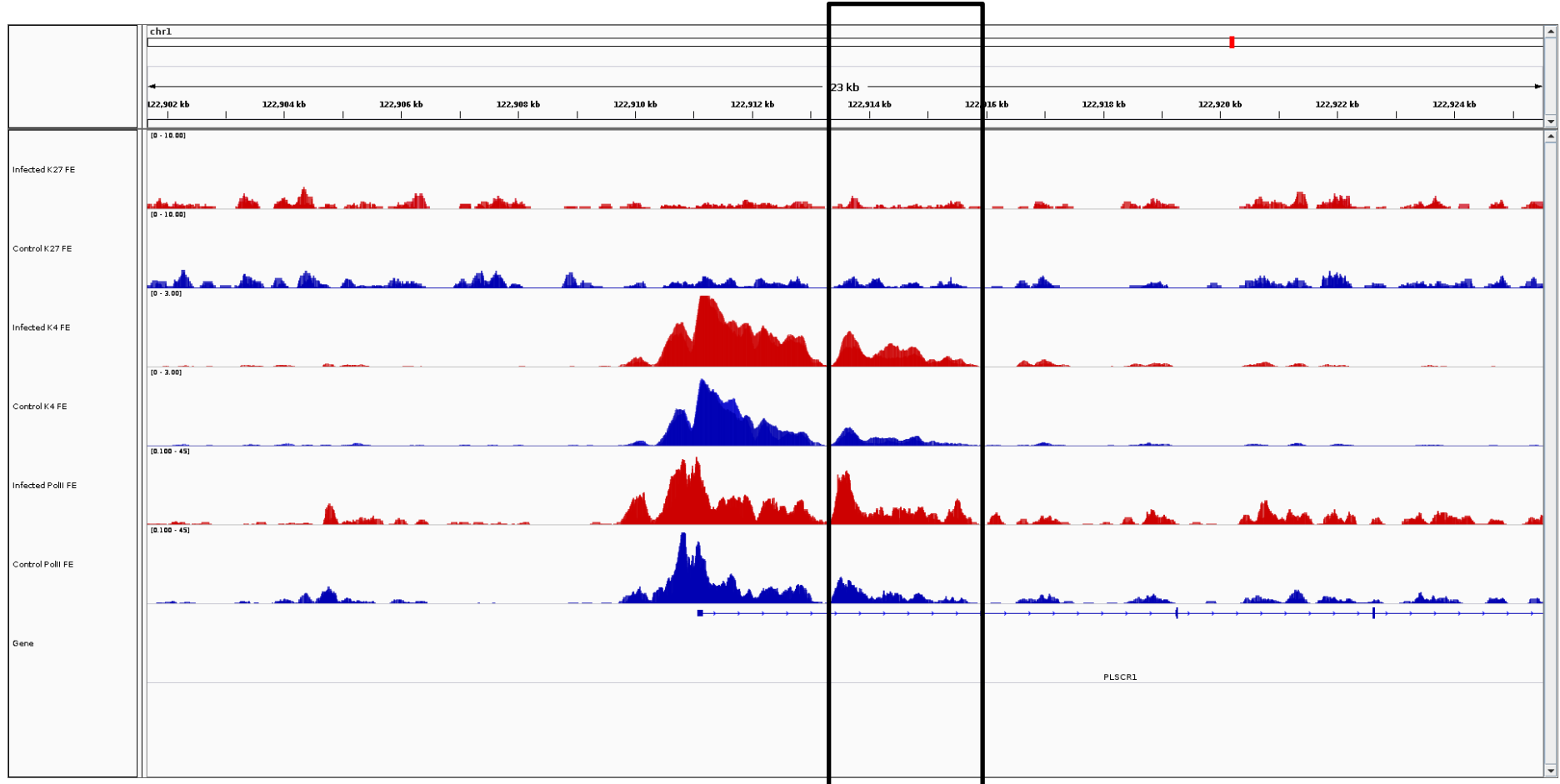
PIK3AP1



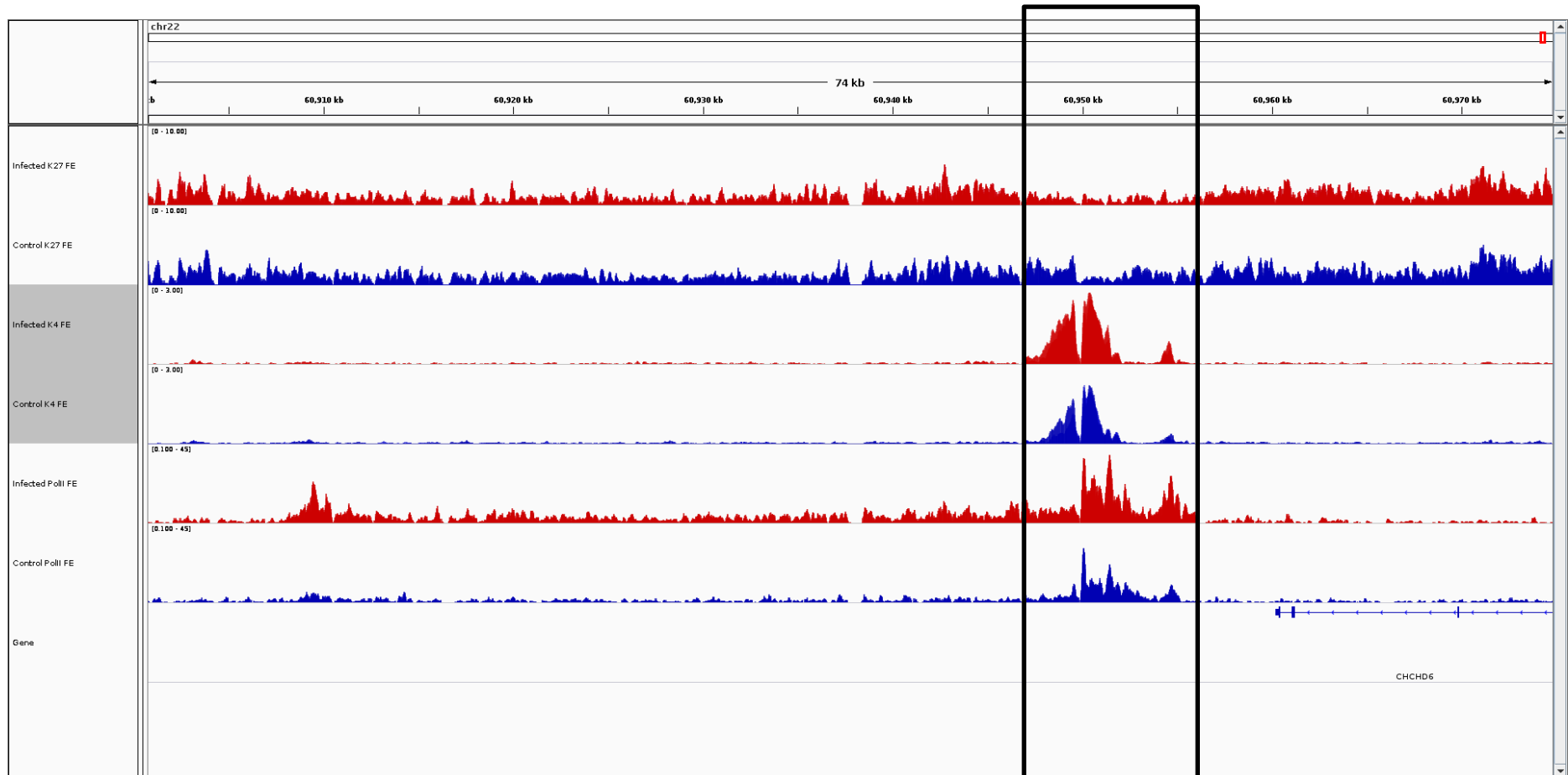
PLAC8



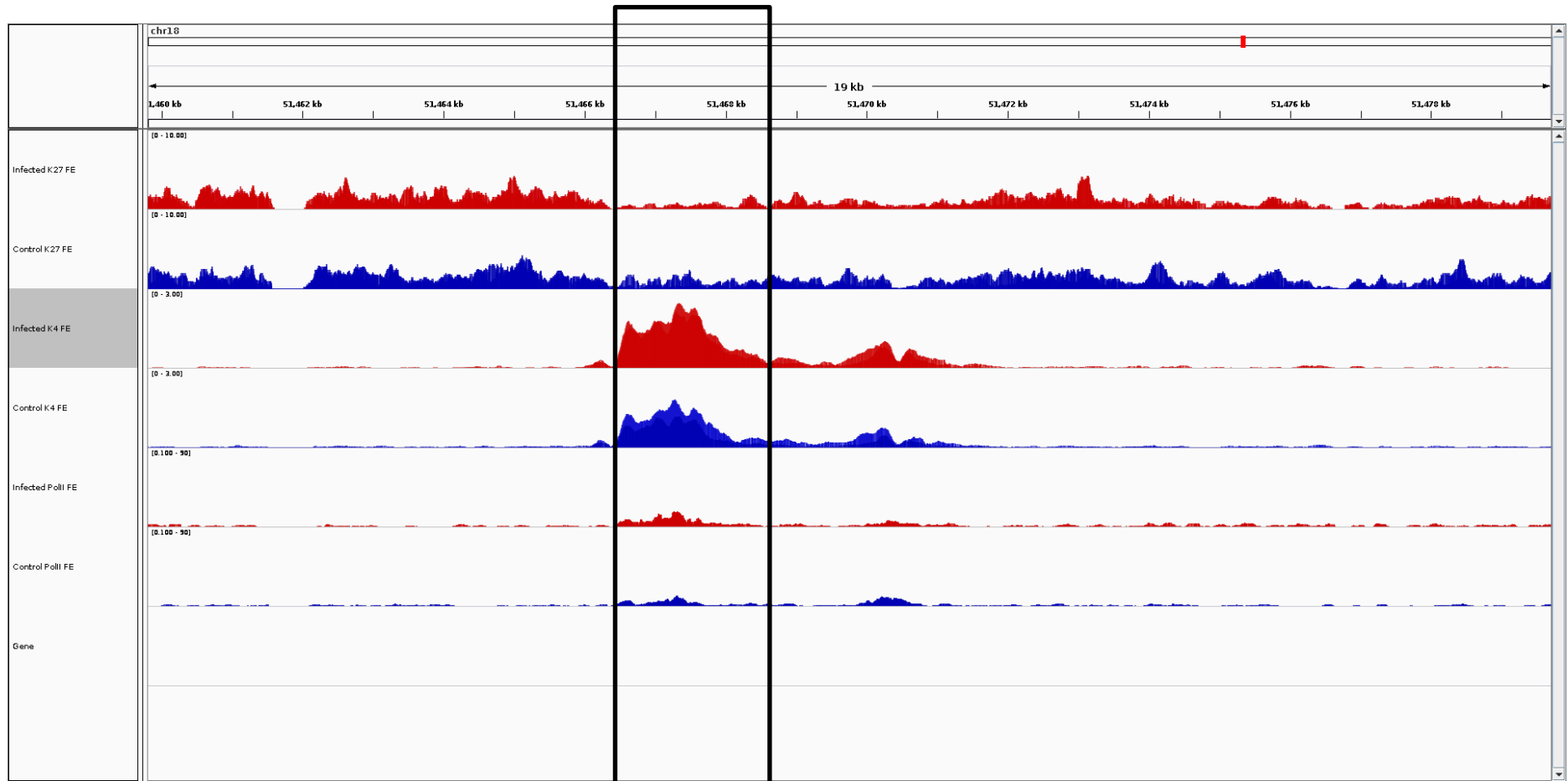
PLEKHA4



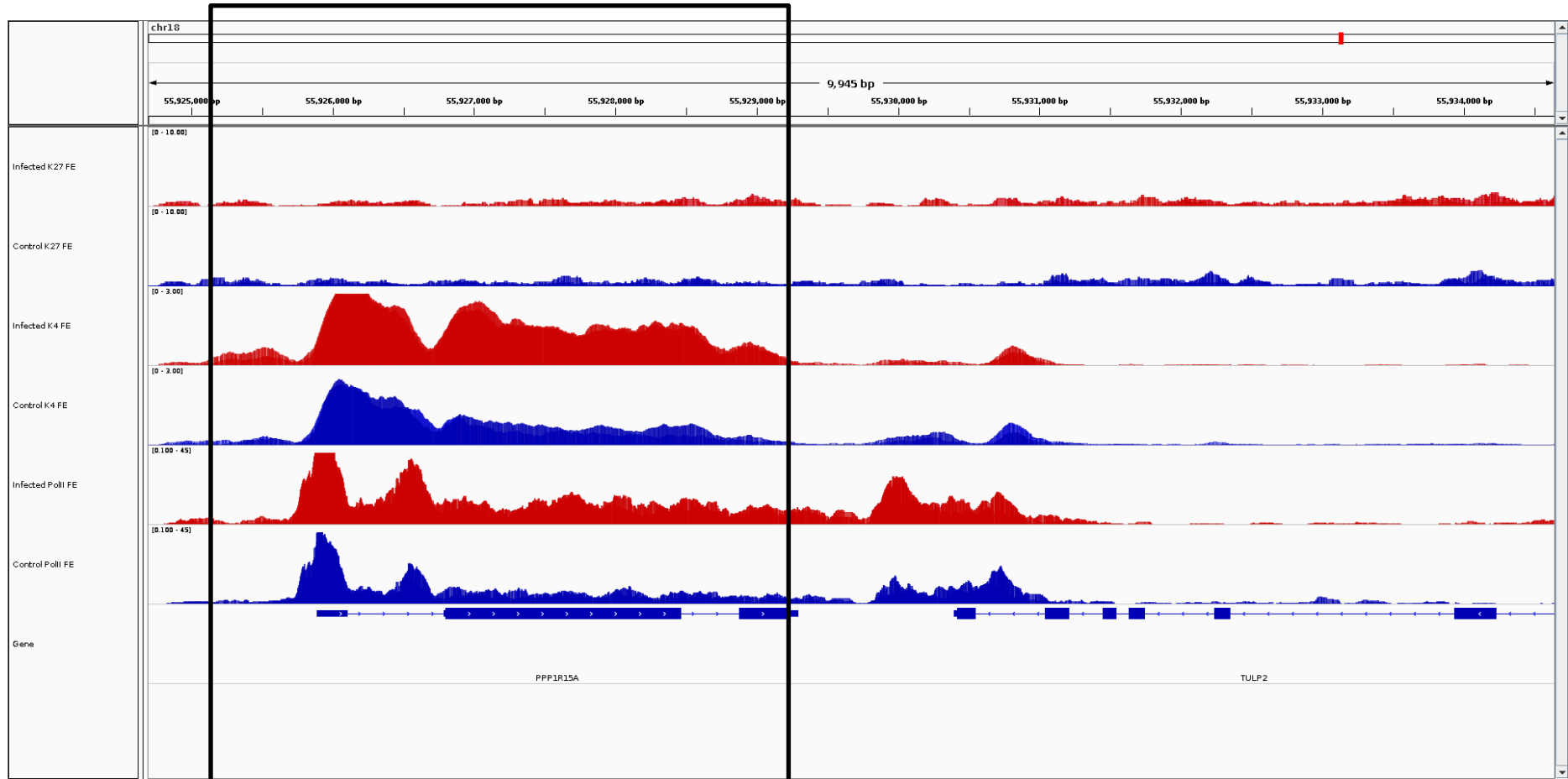
PLSCR1



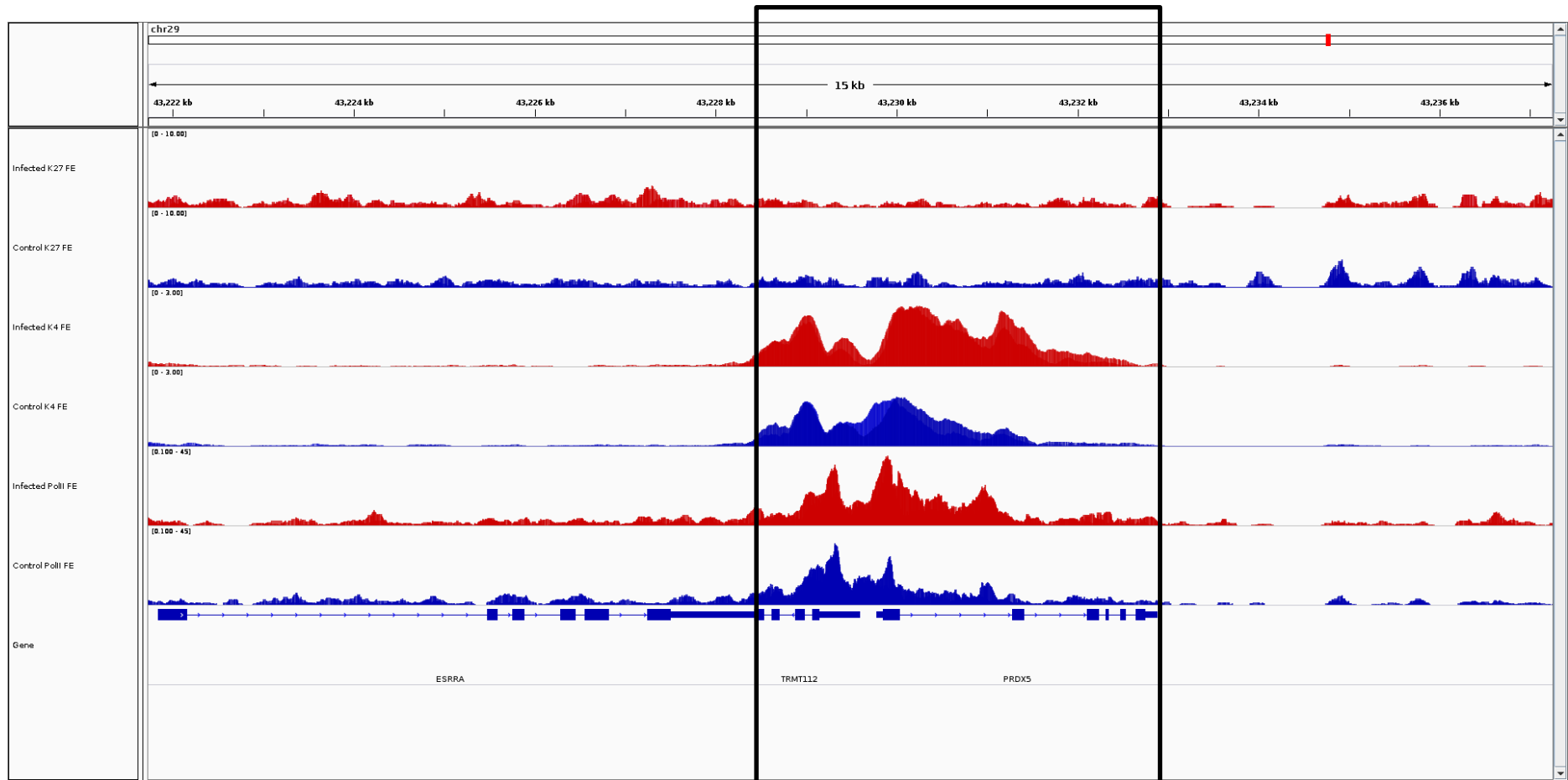
PLXNA1



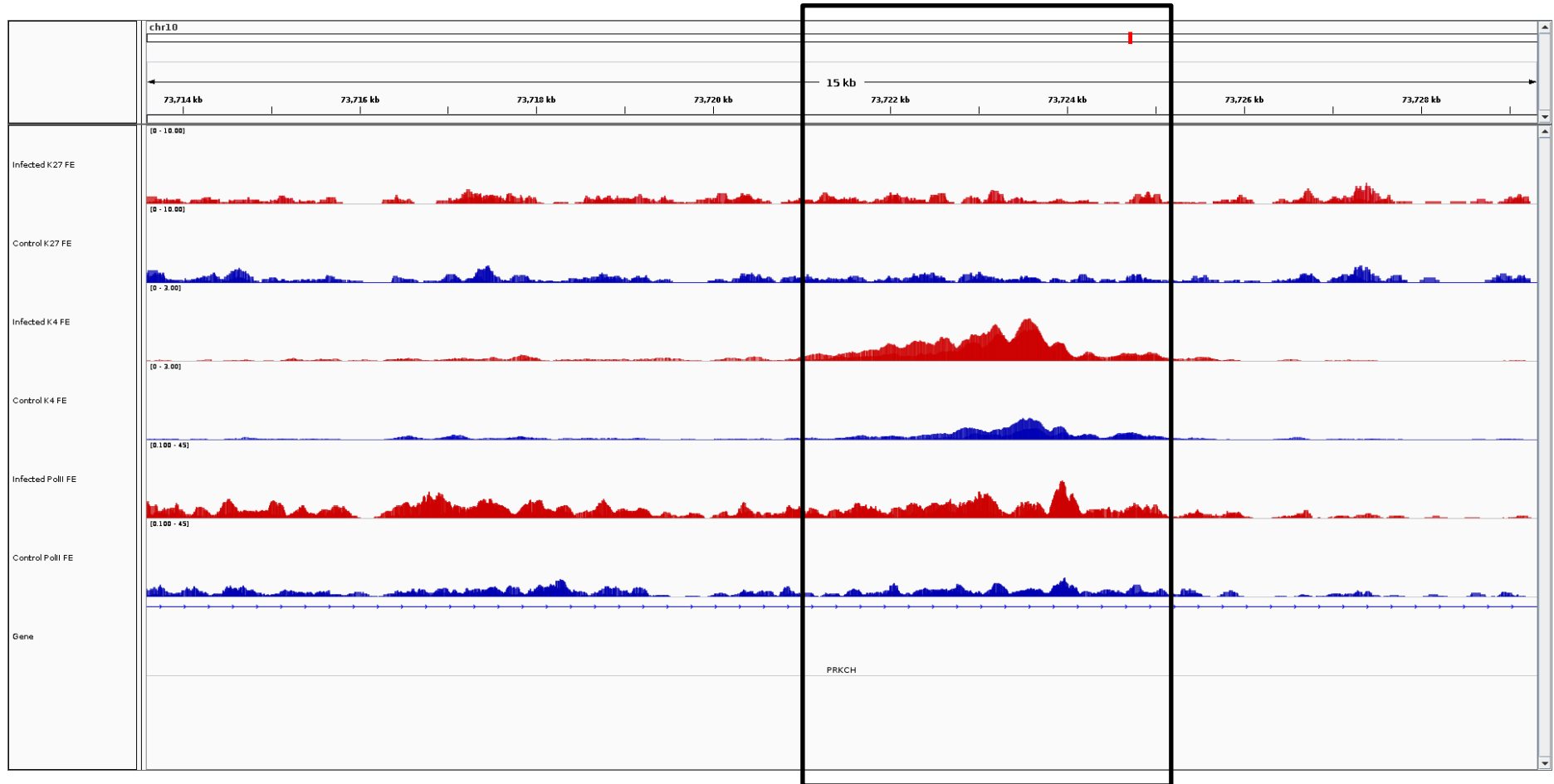
POU2F2



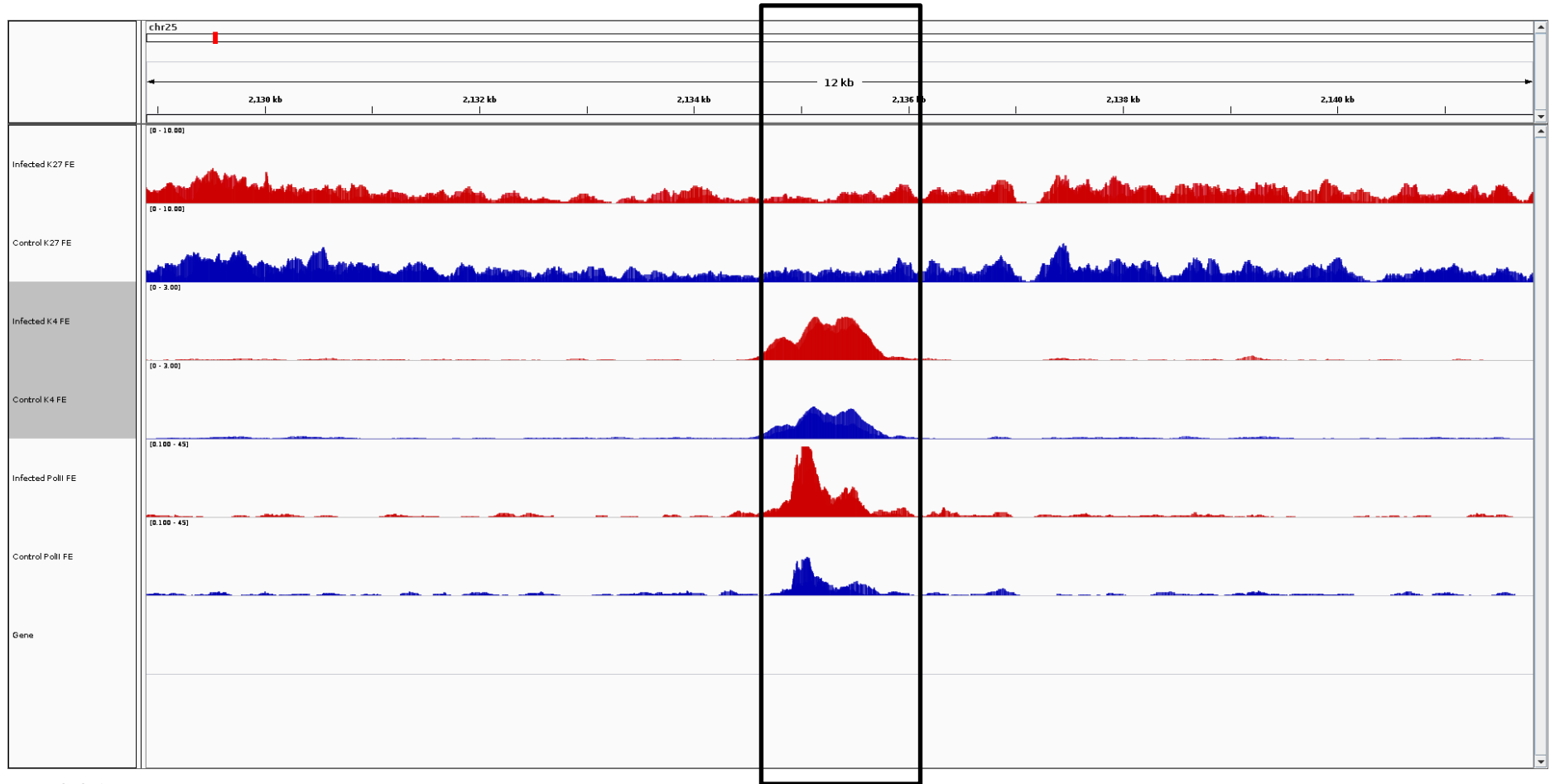
PPP1R15A



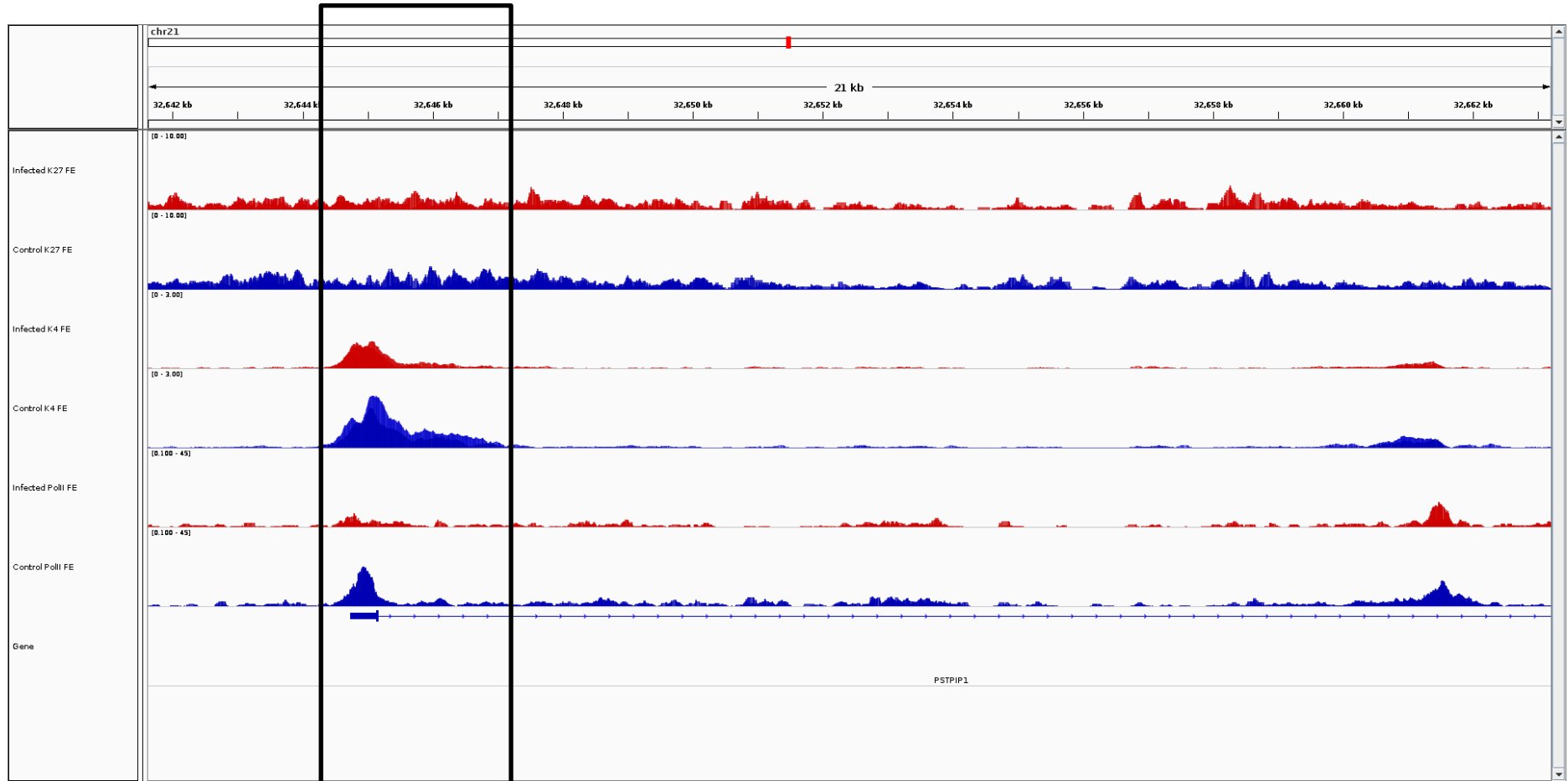
PRDX2, TRMT112



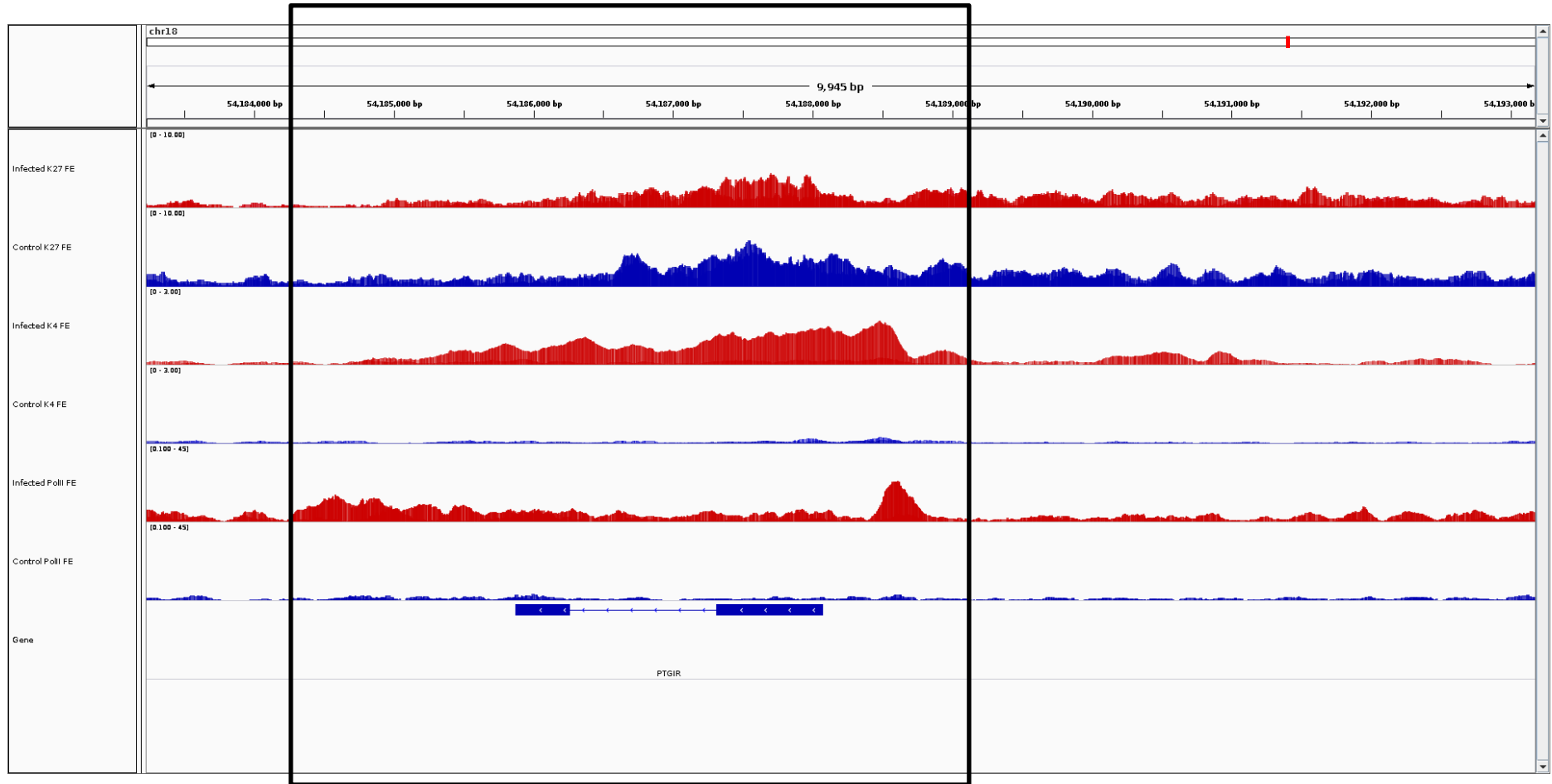
PRKCH



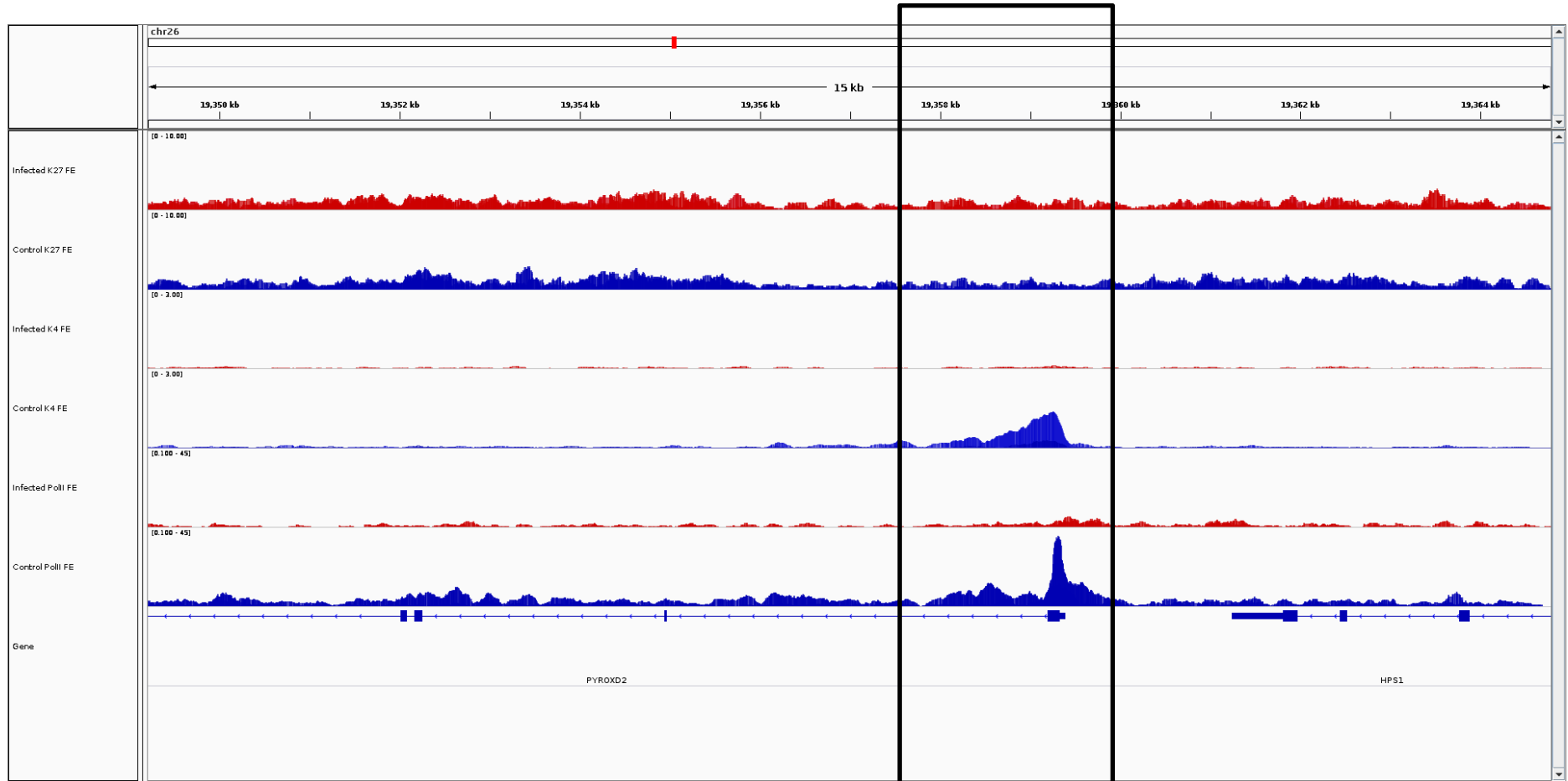
PRSS27



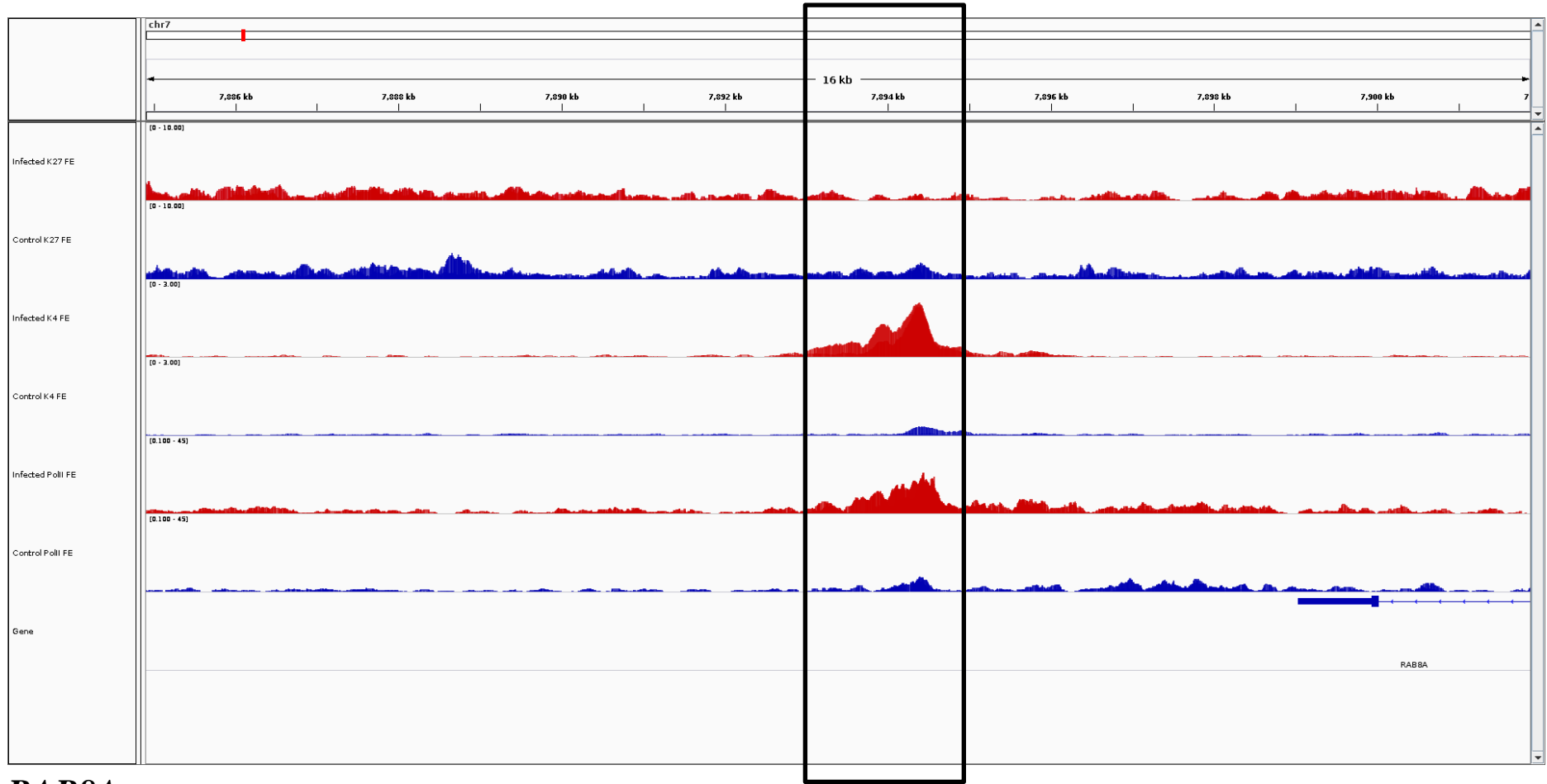
PSTPIP1



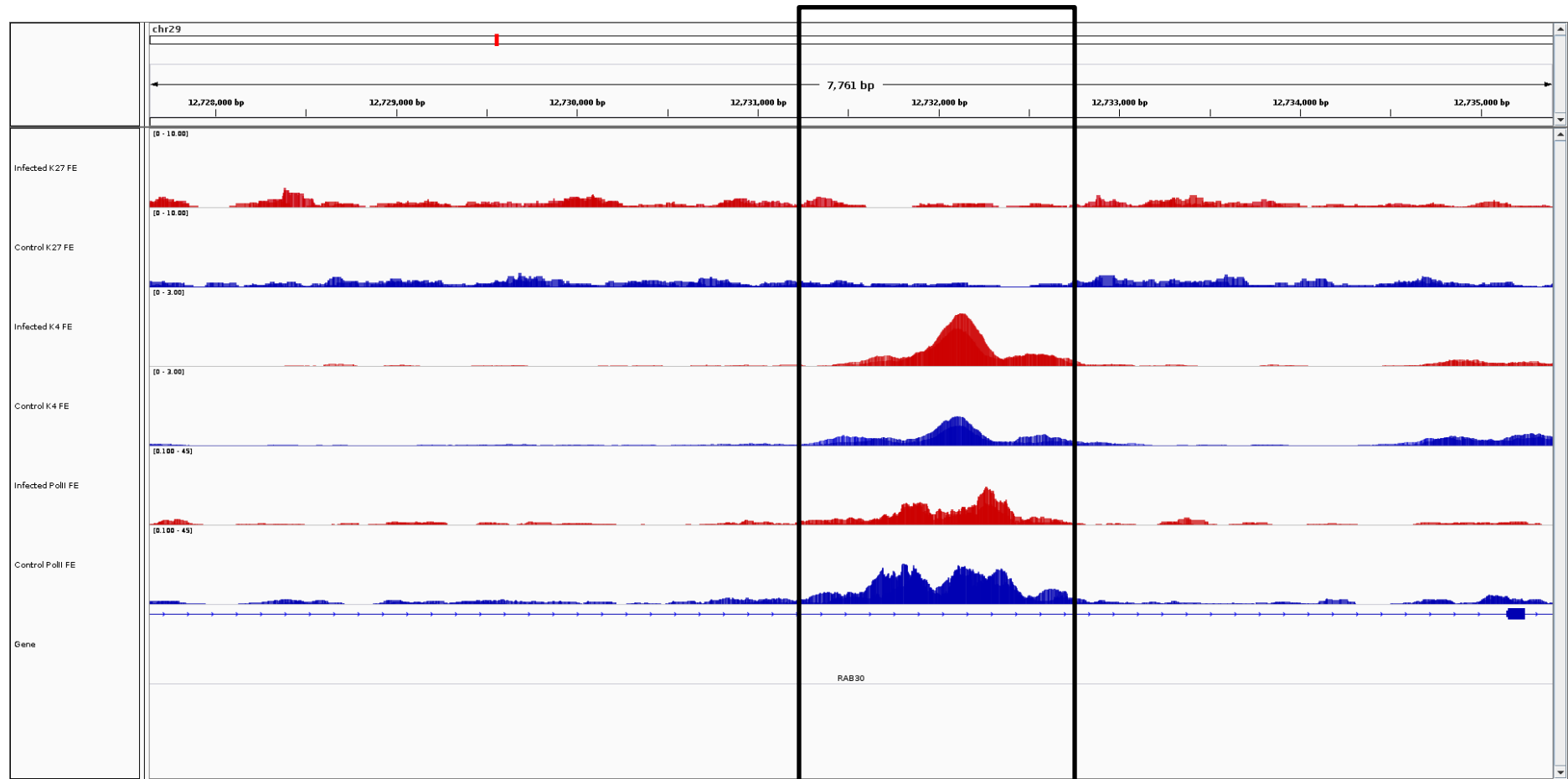
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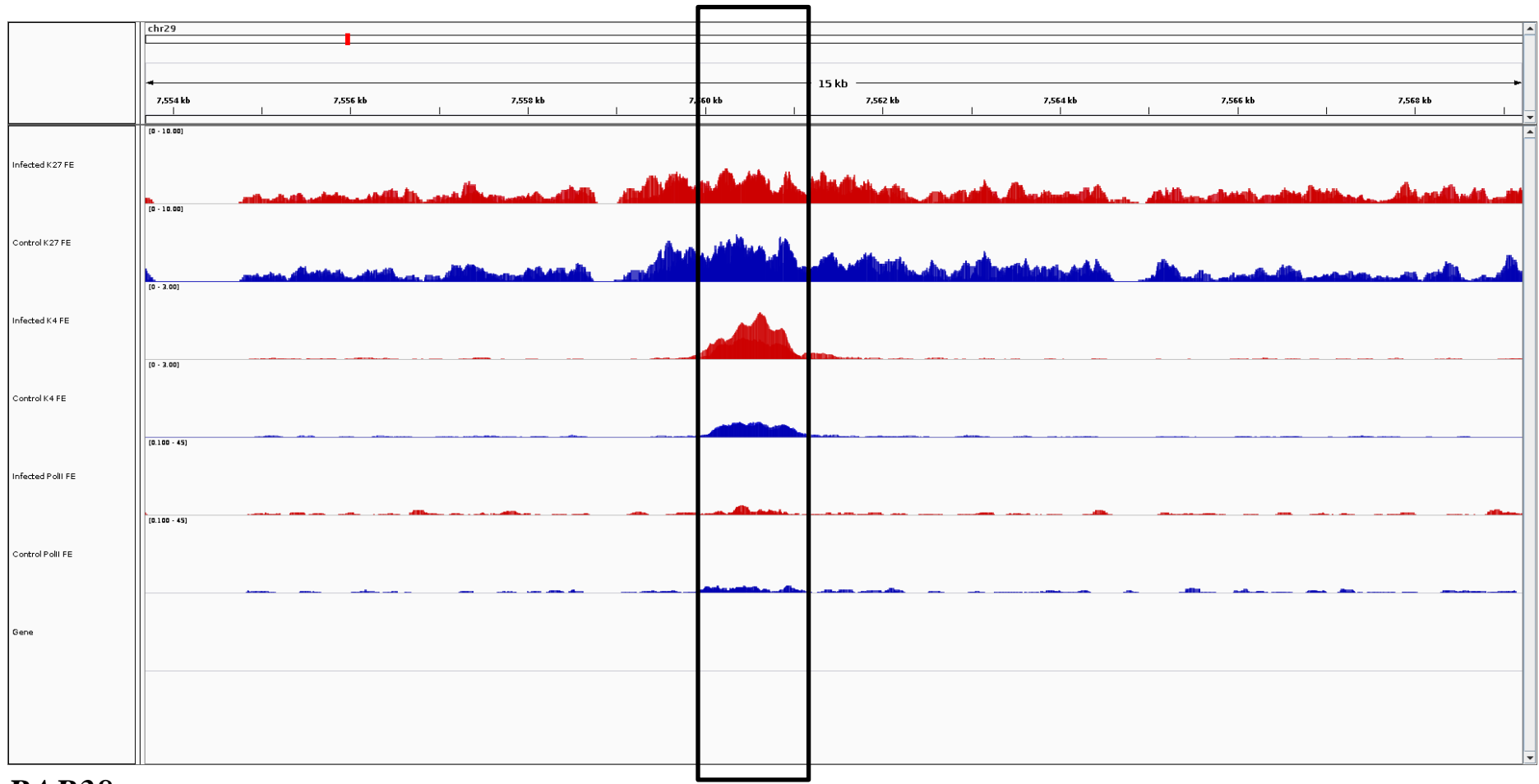
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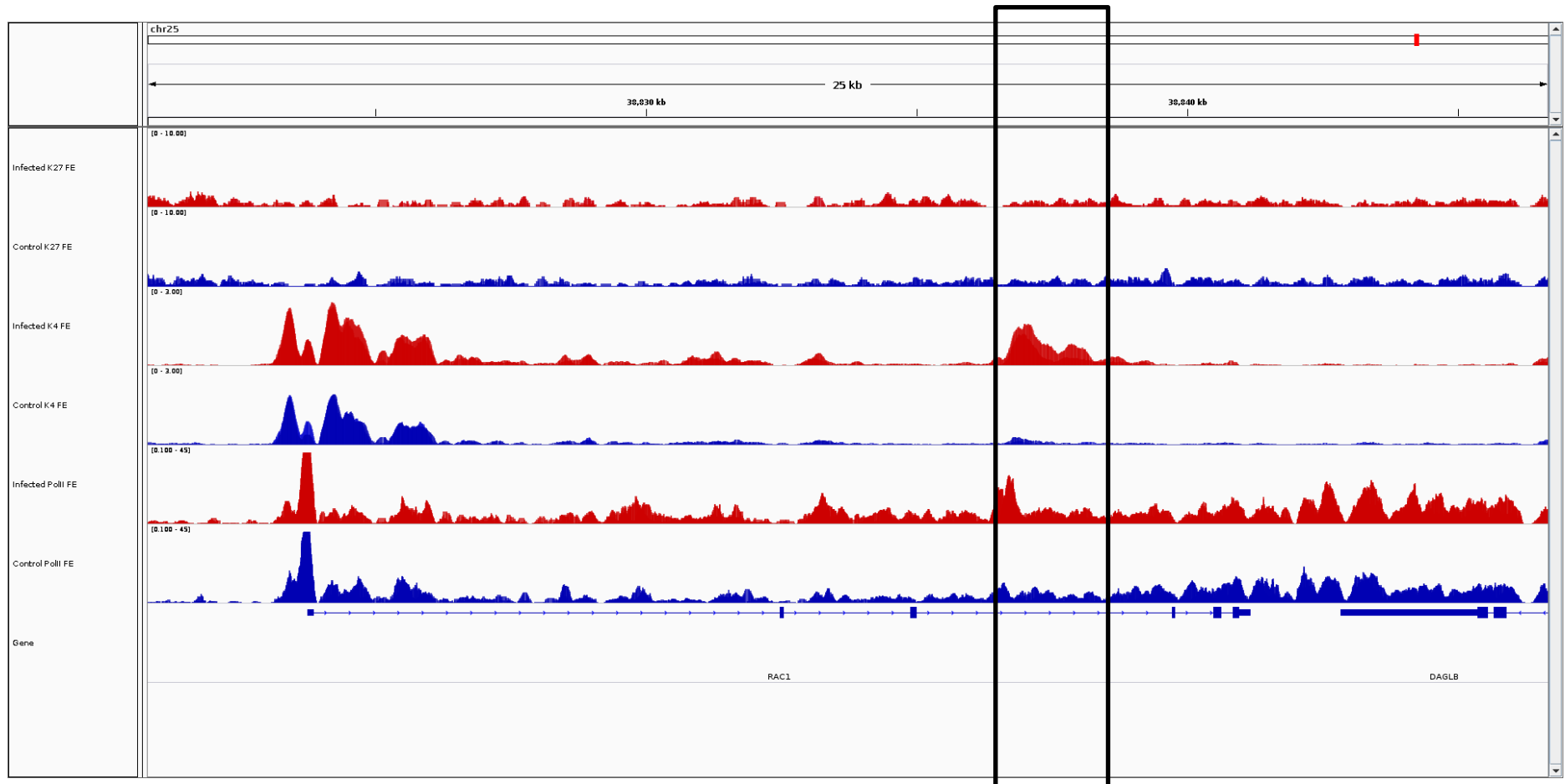
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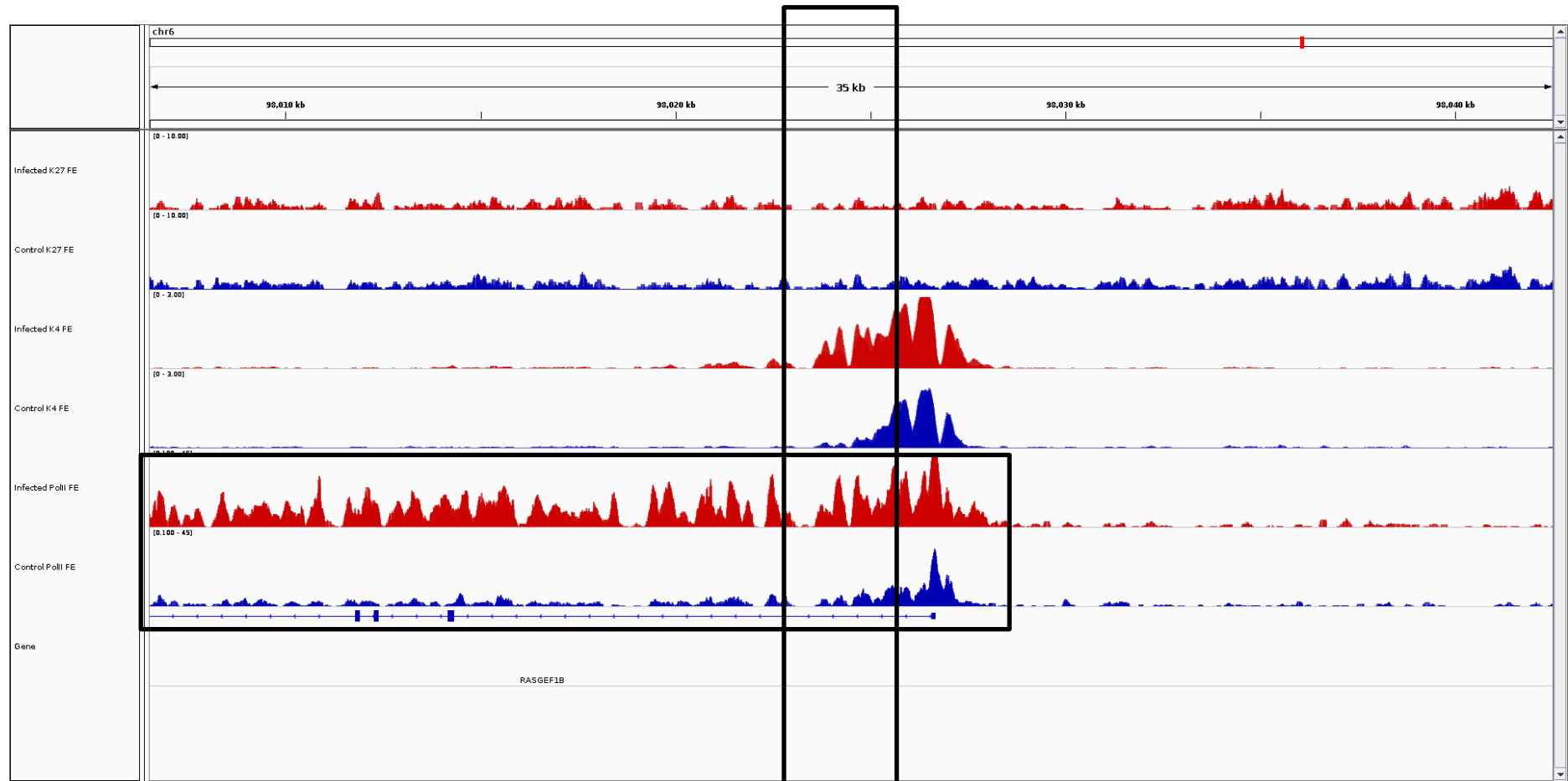
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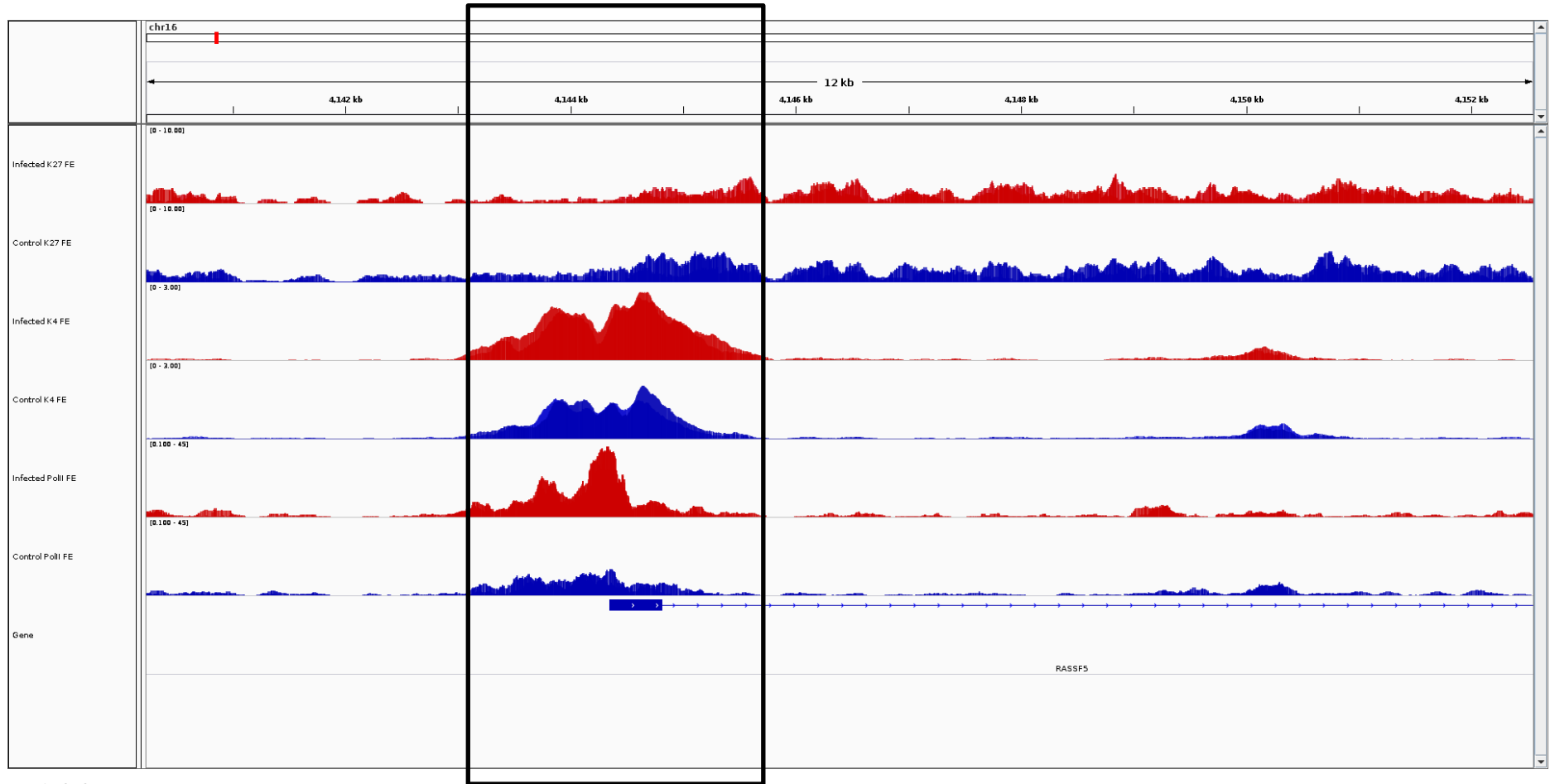
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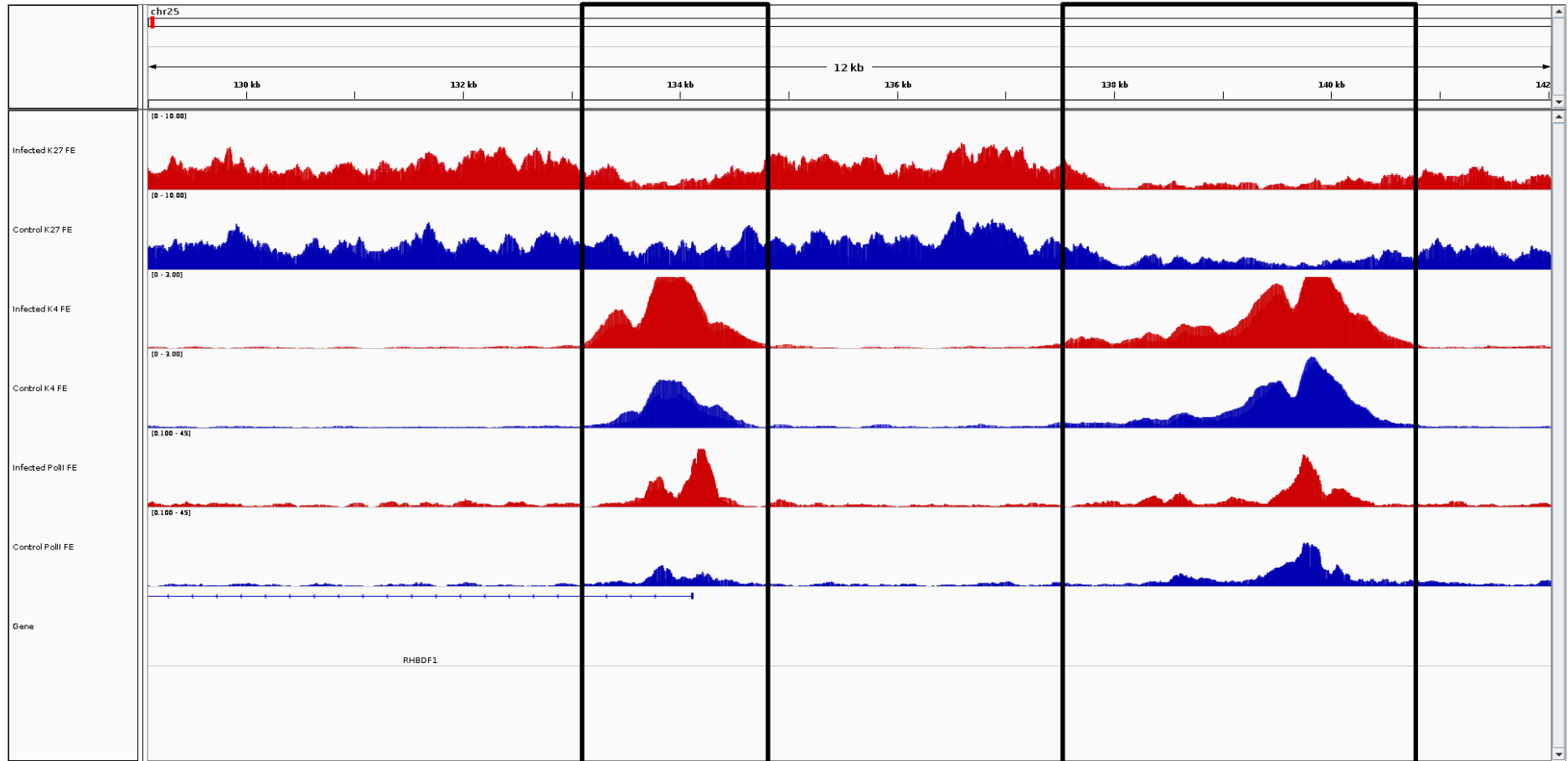
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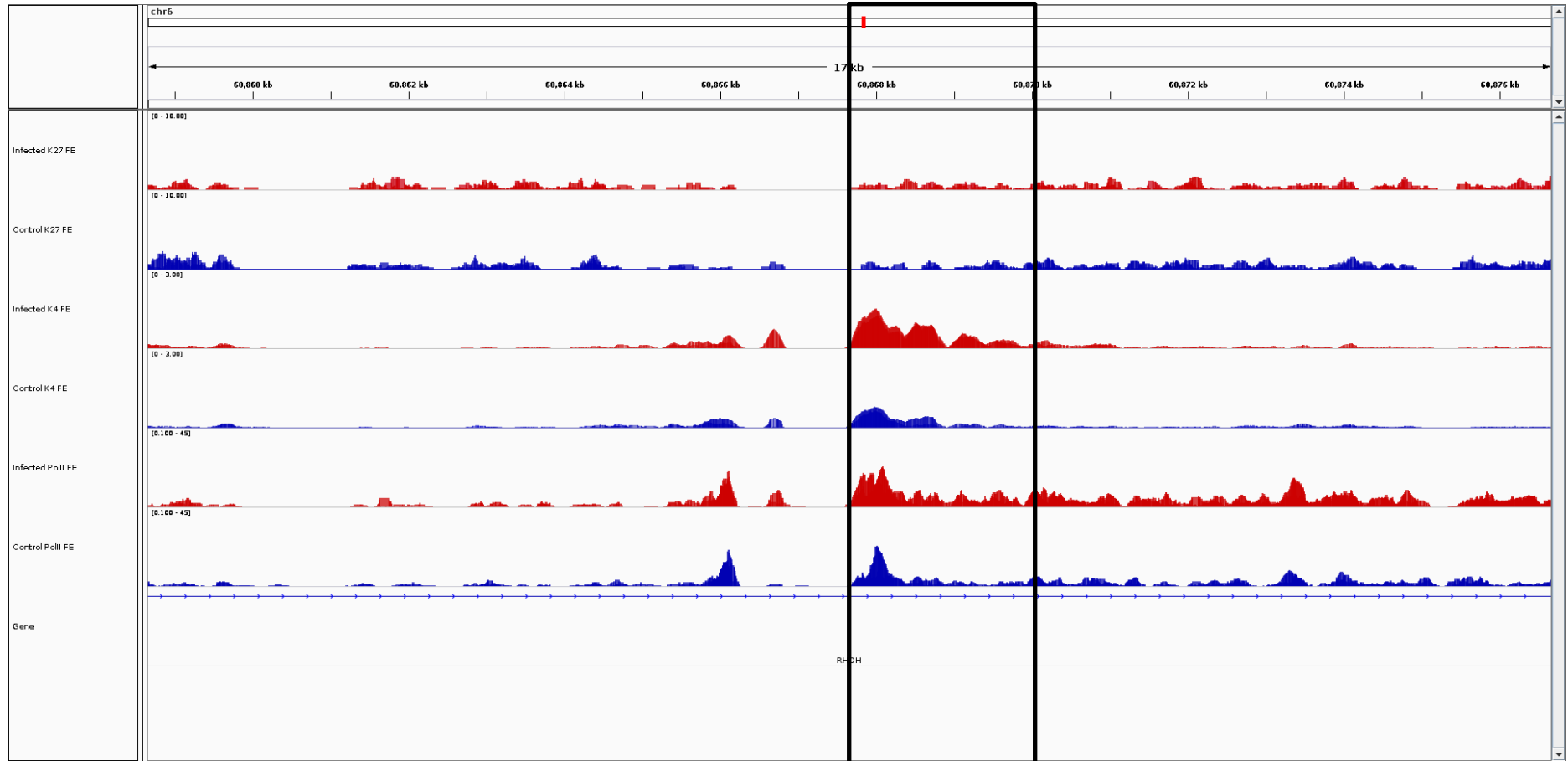
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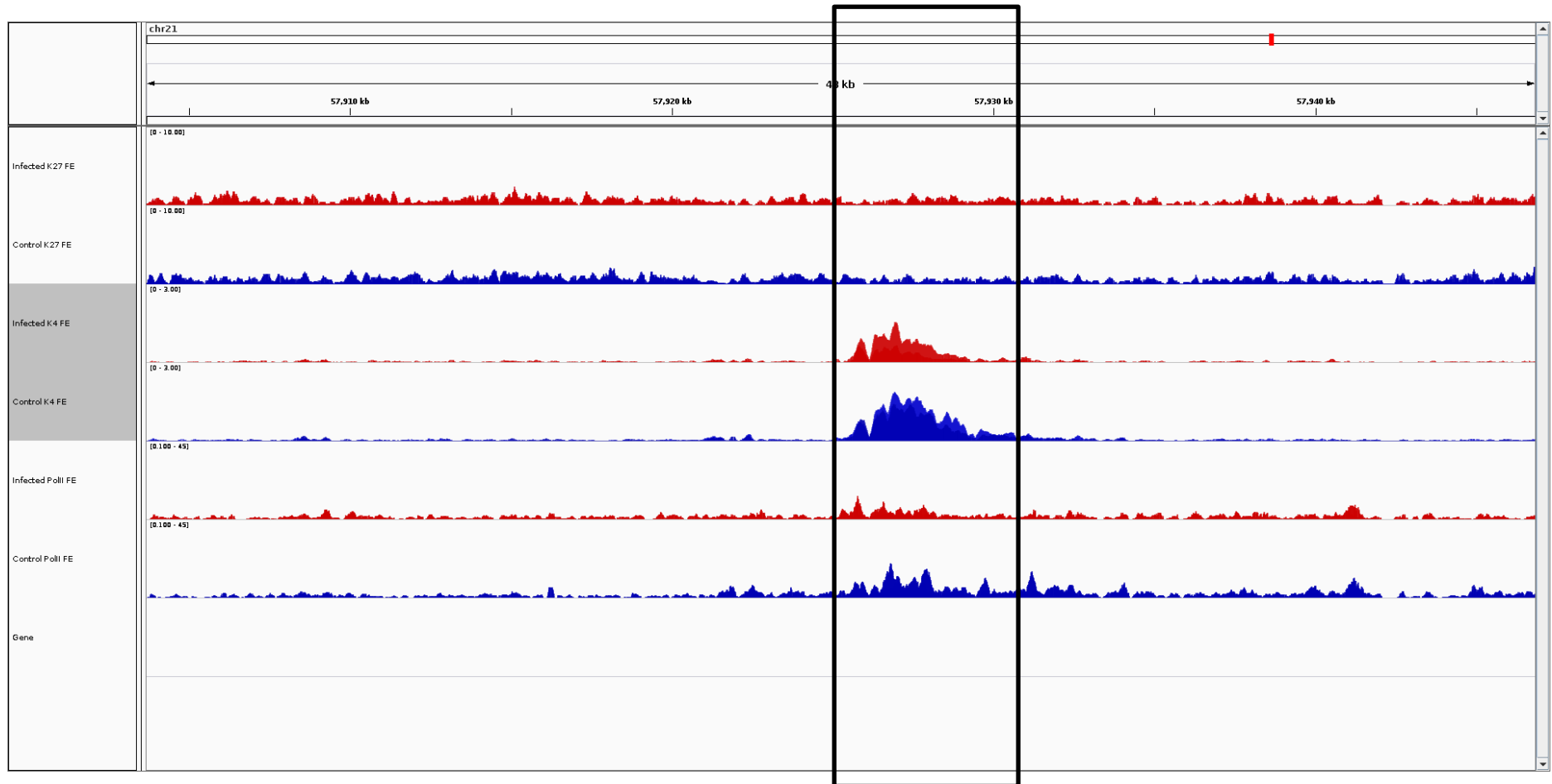
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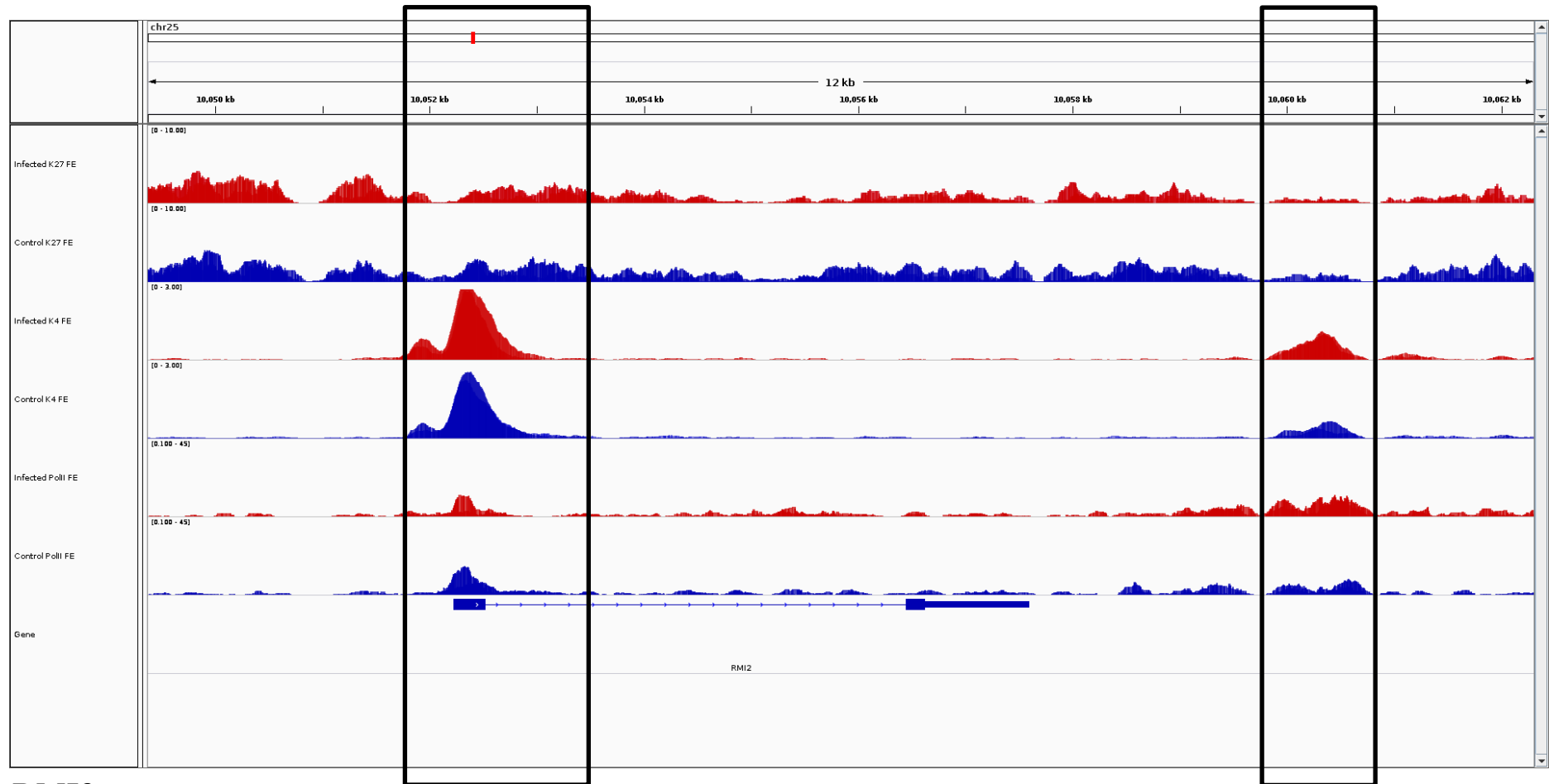
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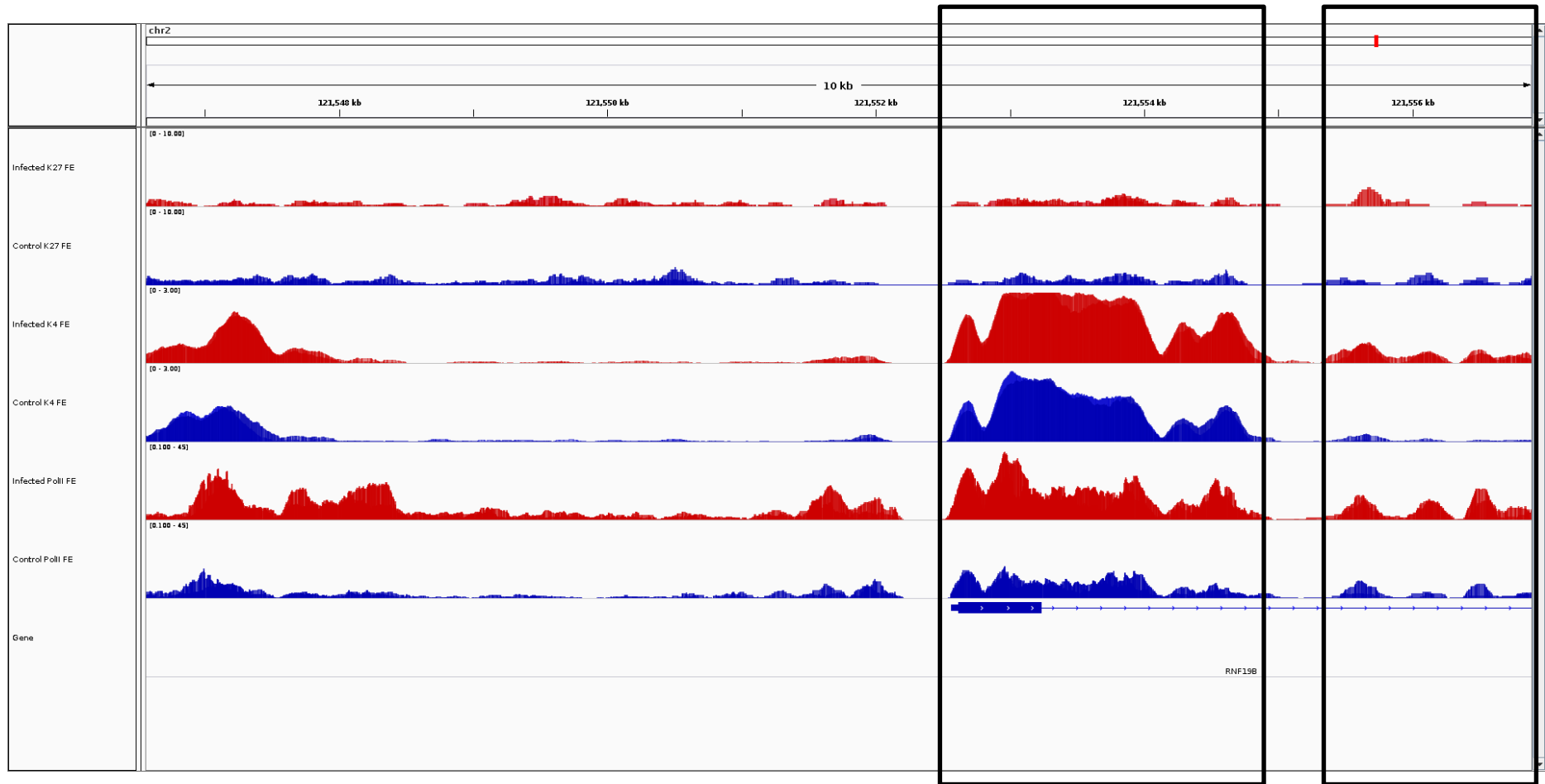
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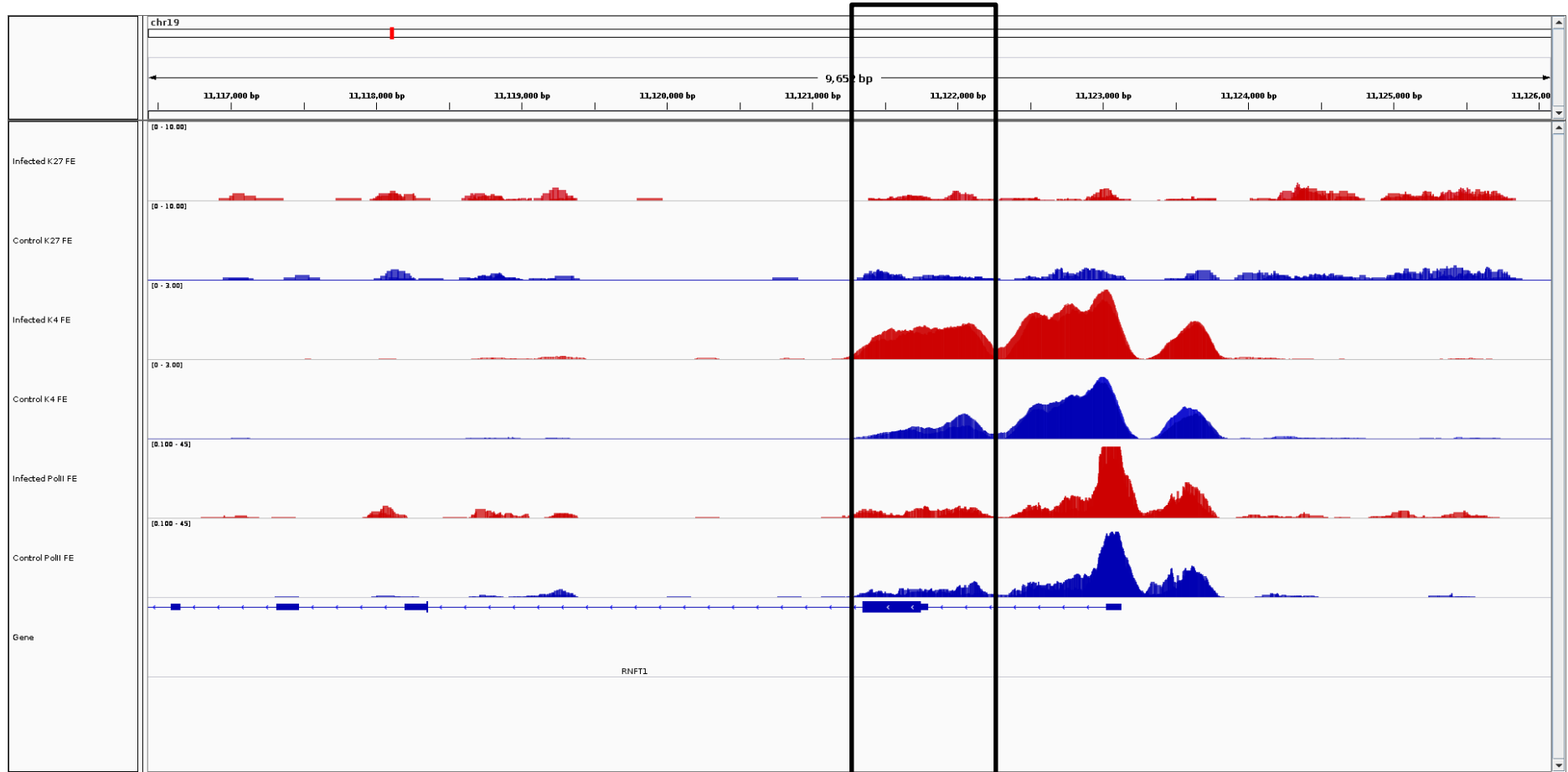
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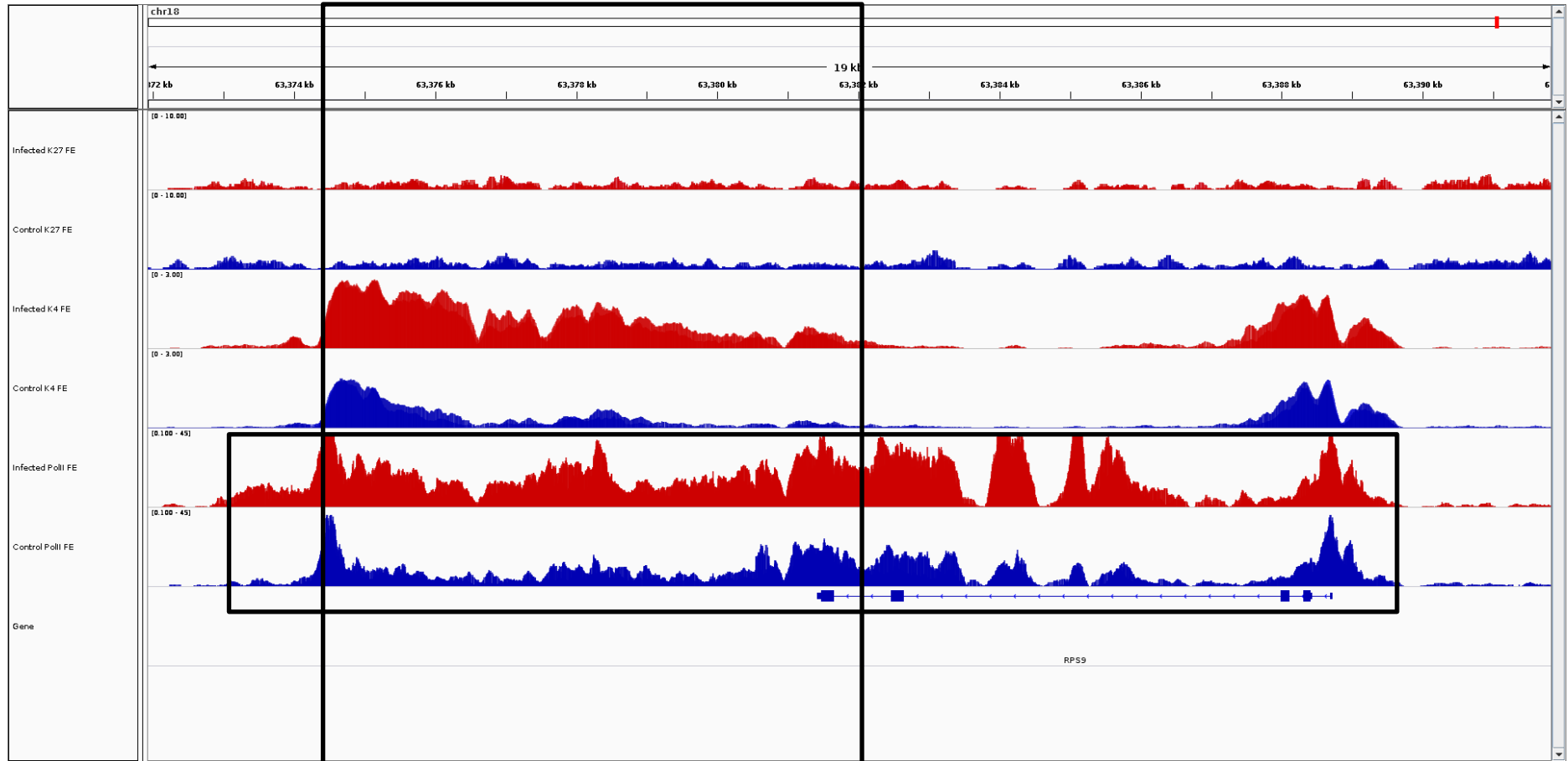
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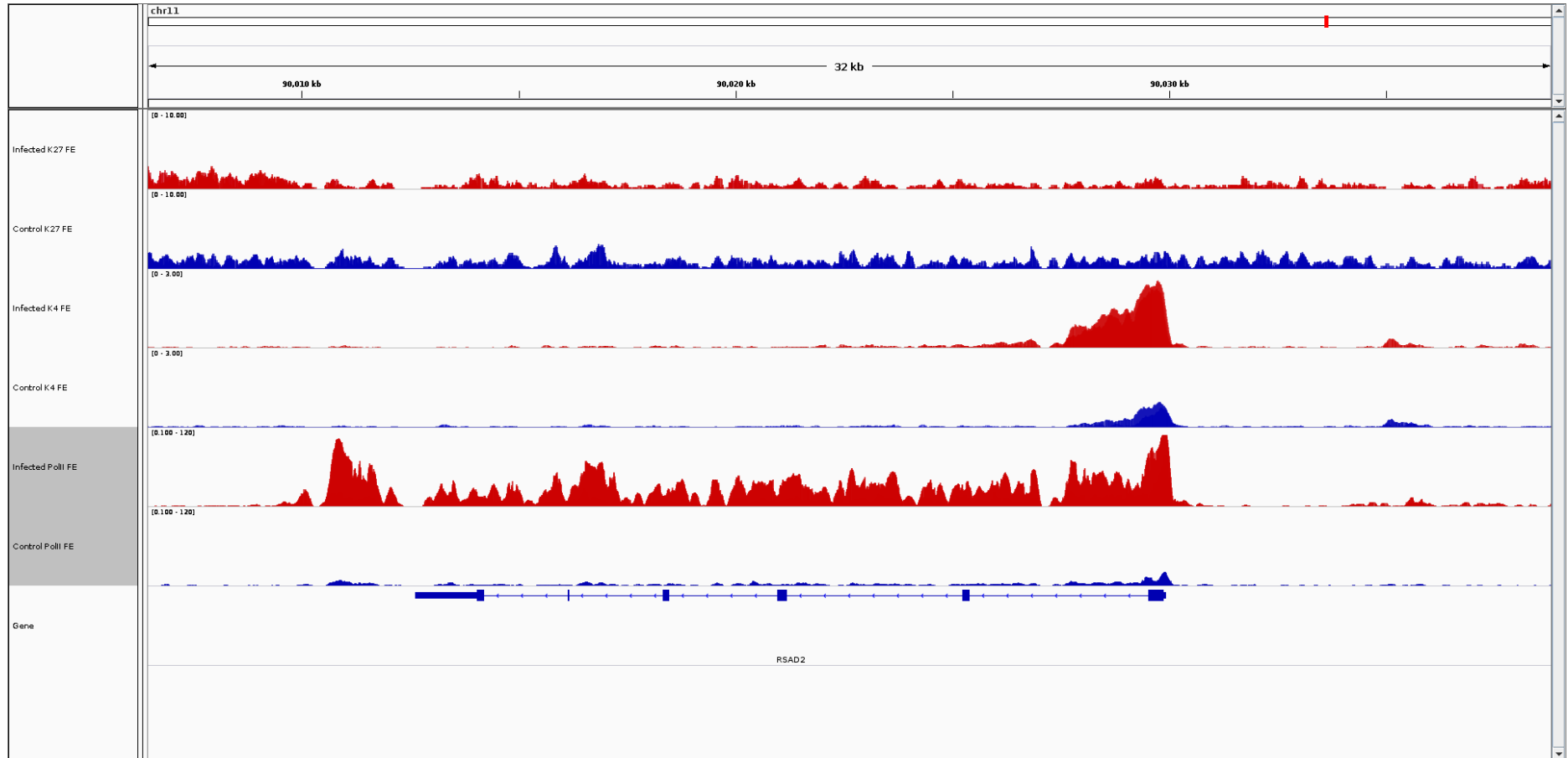
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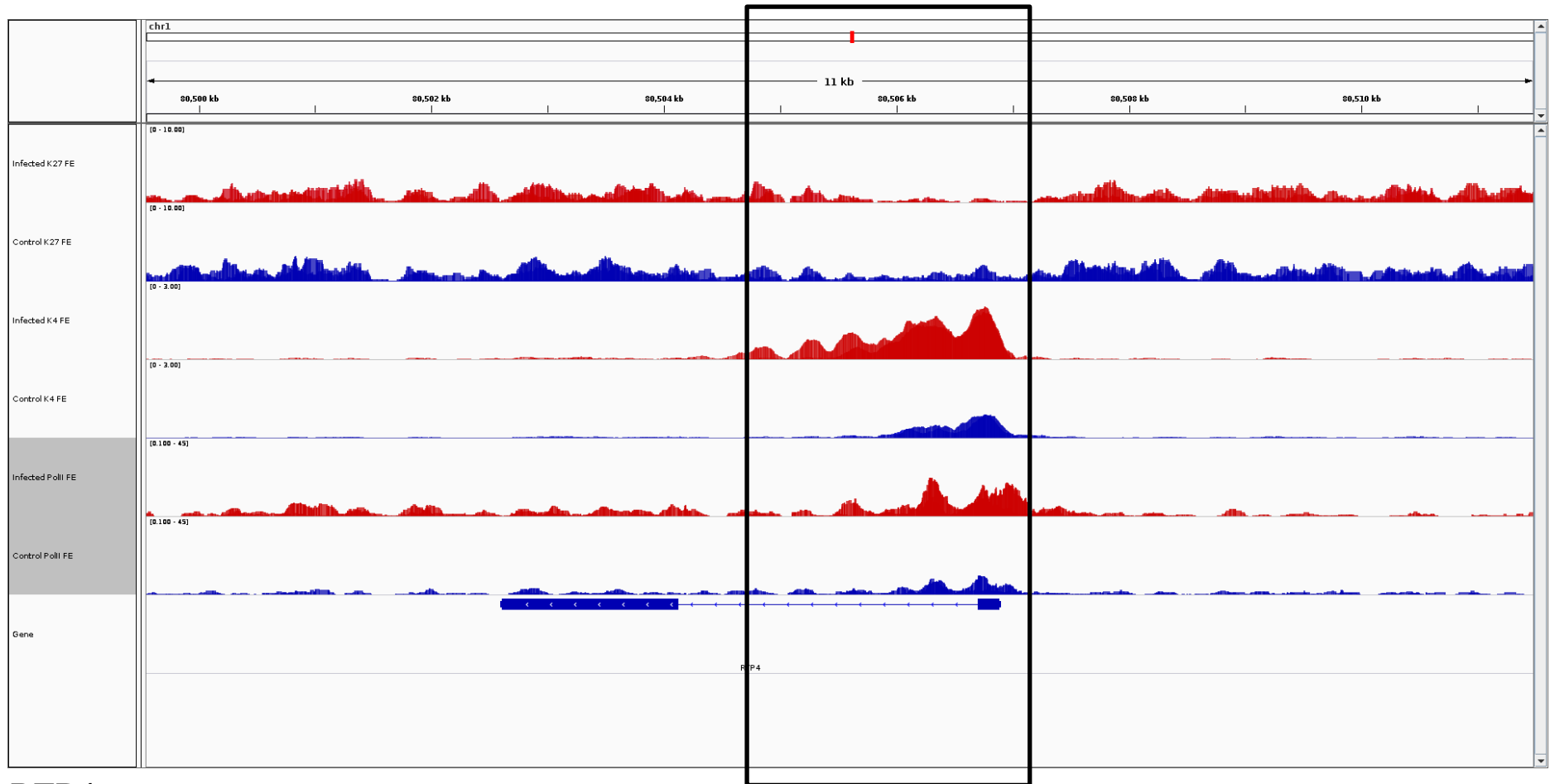
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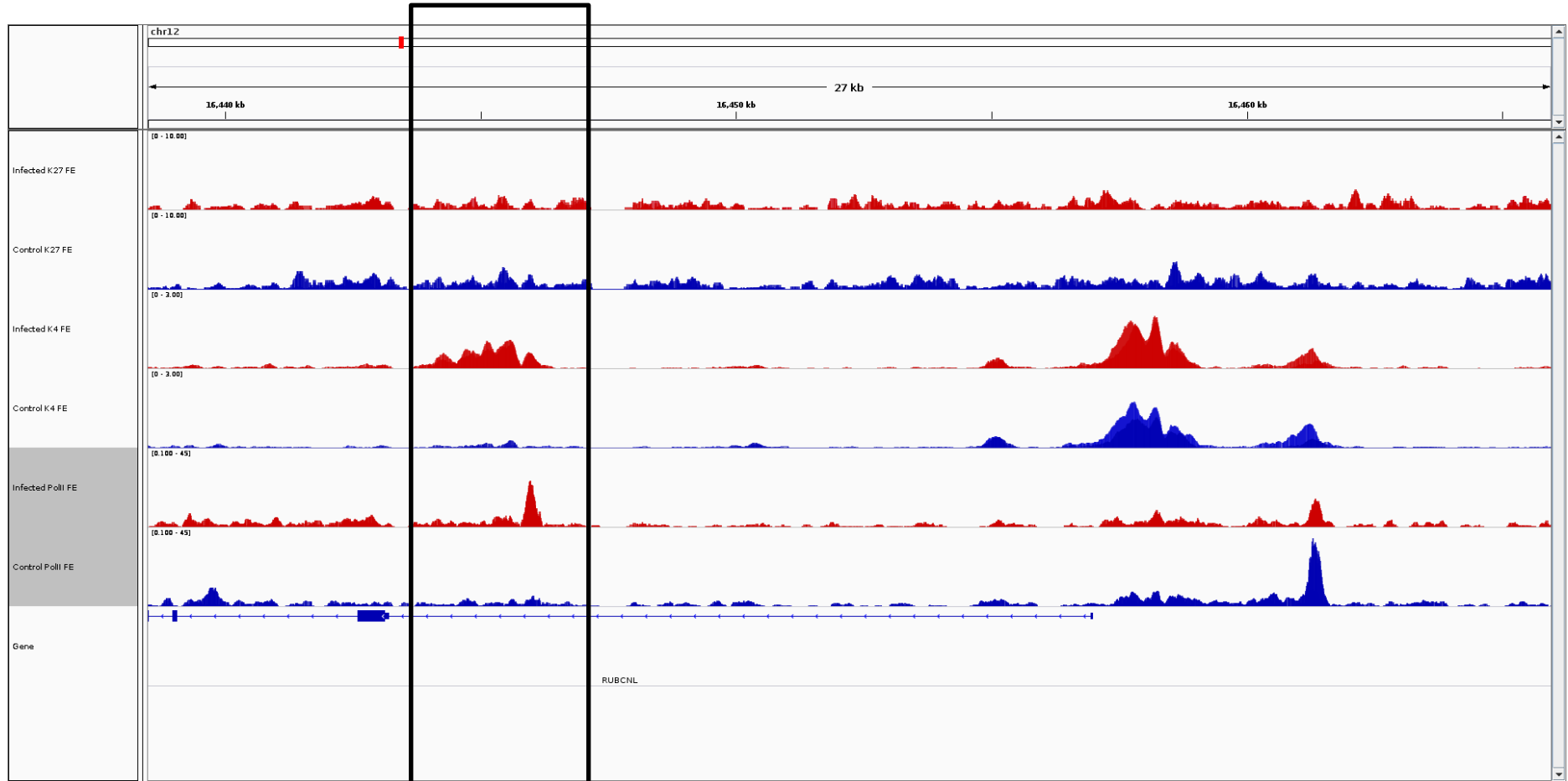
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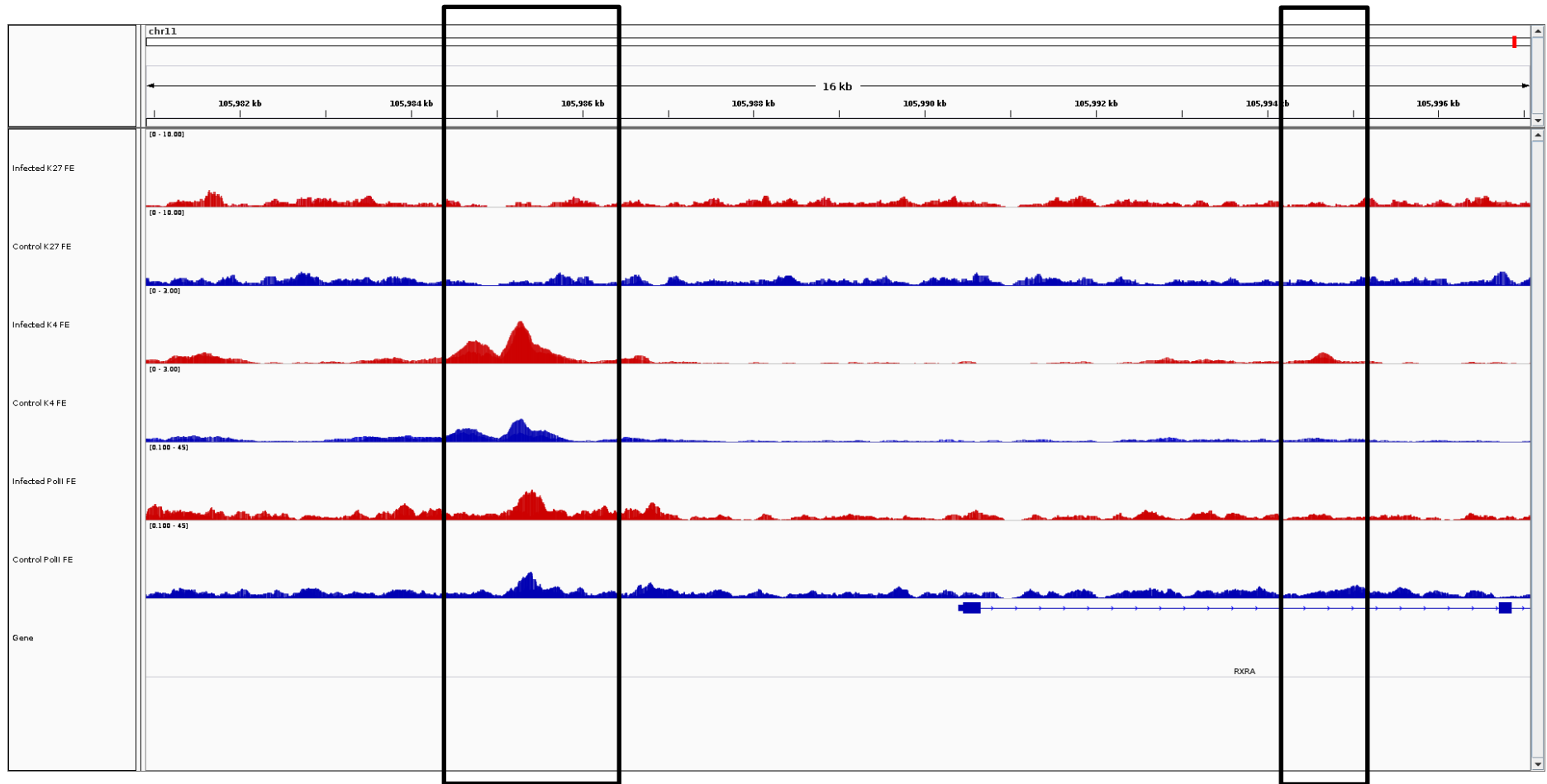
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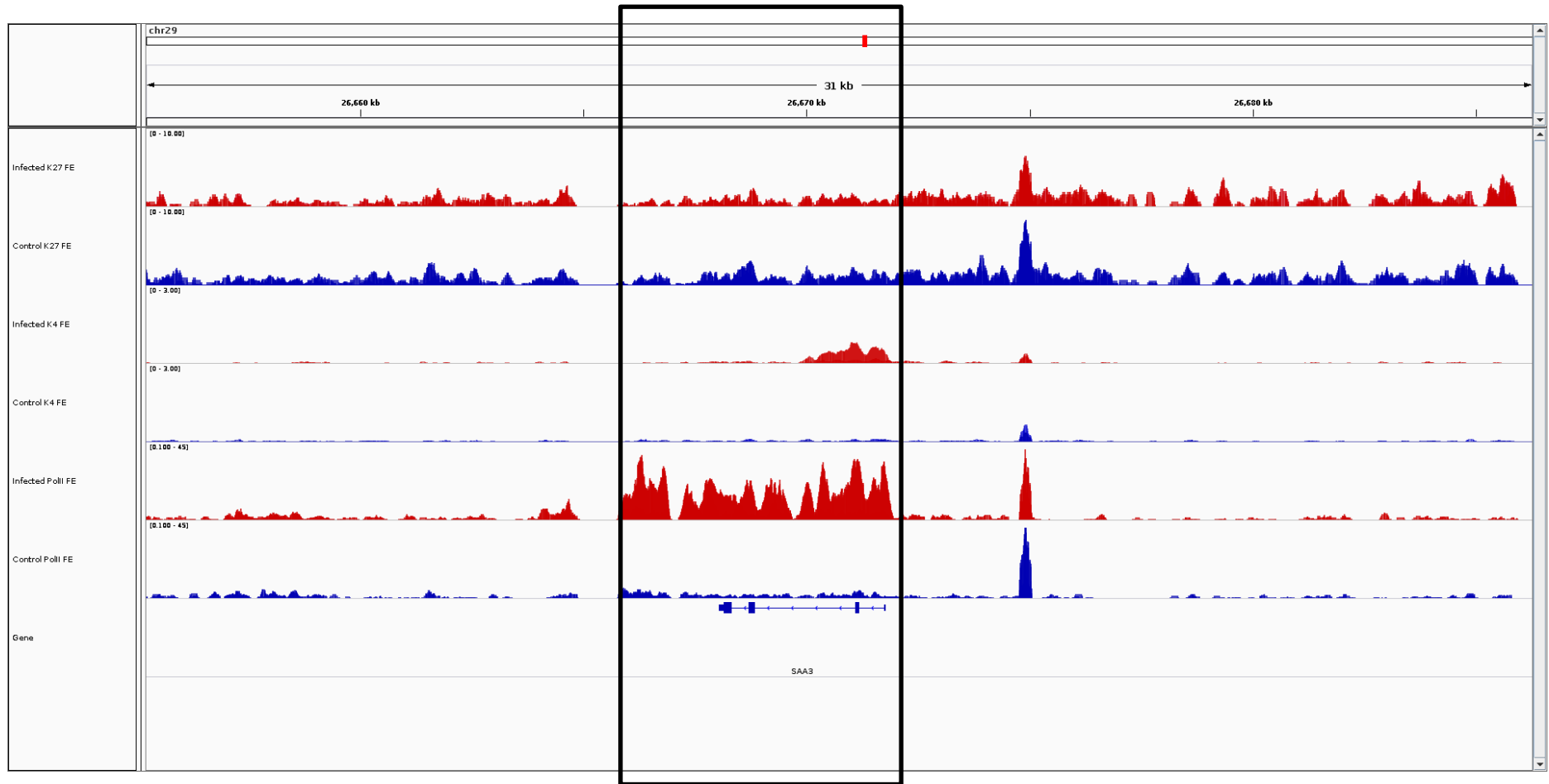
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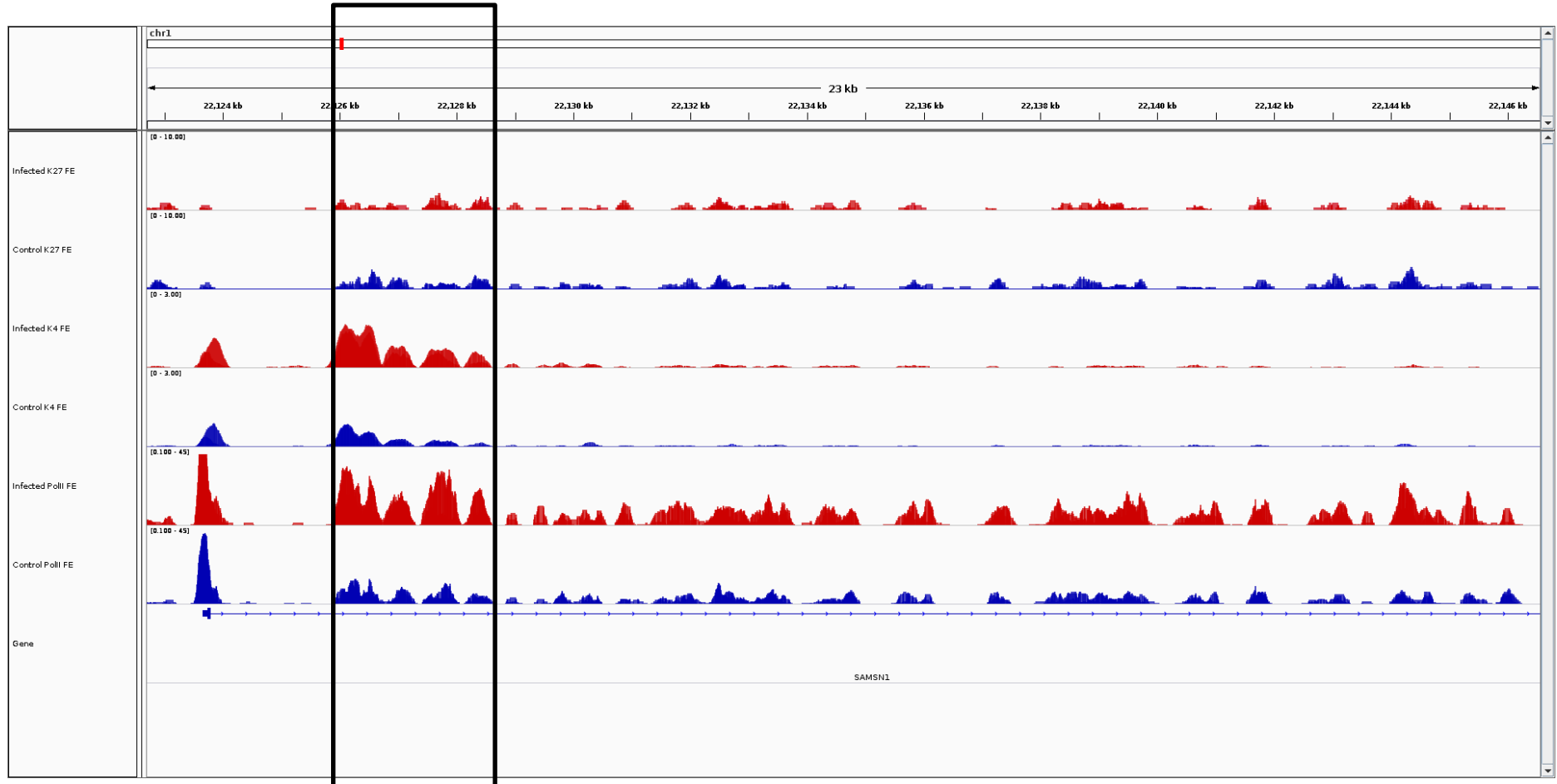
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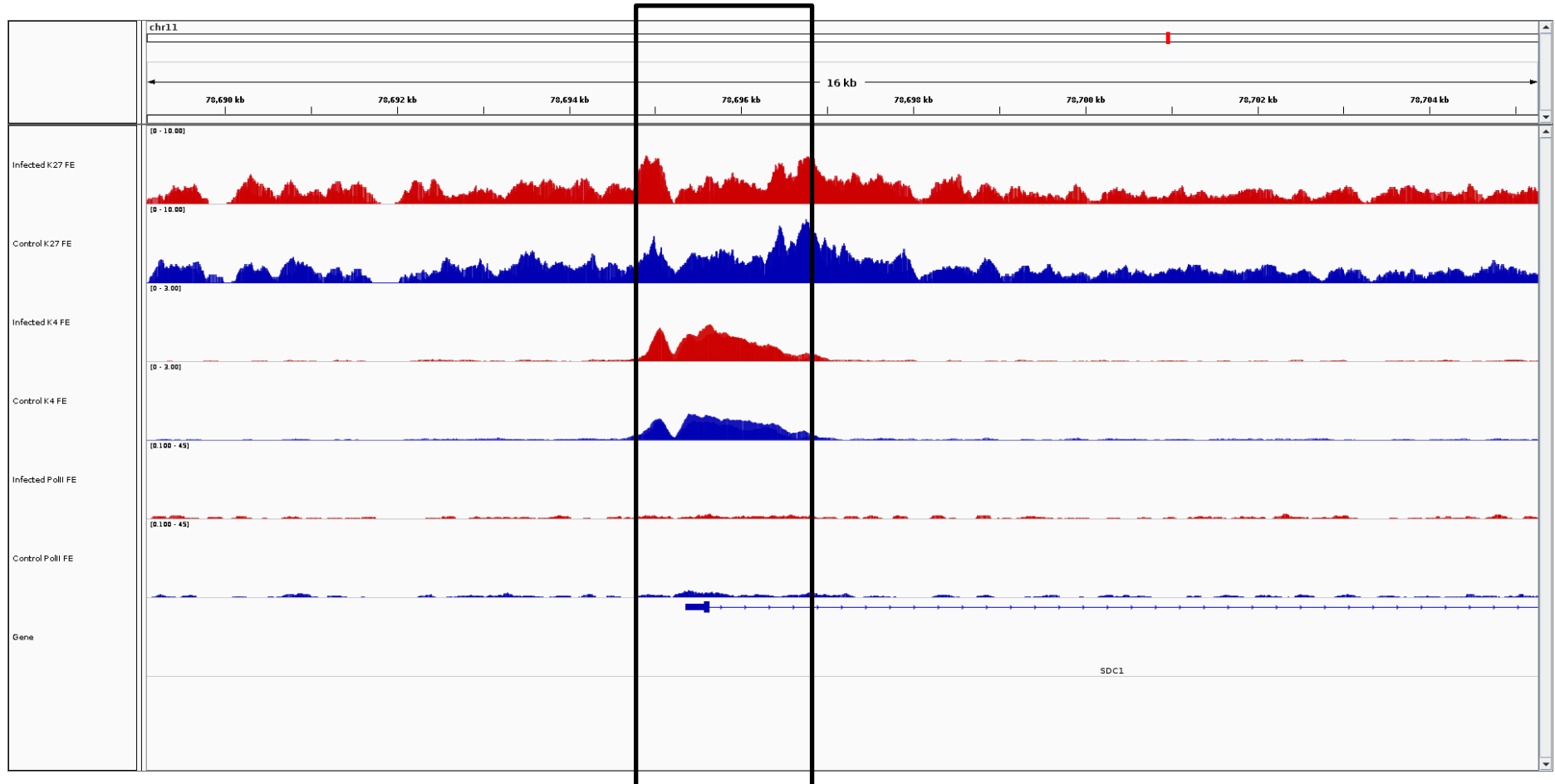
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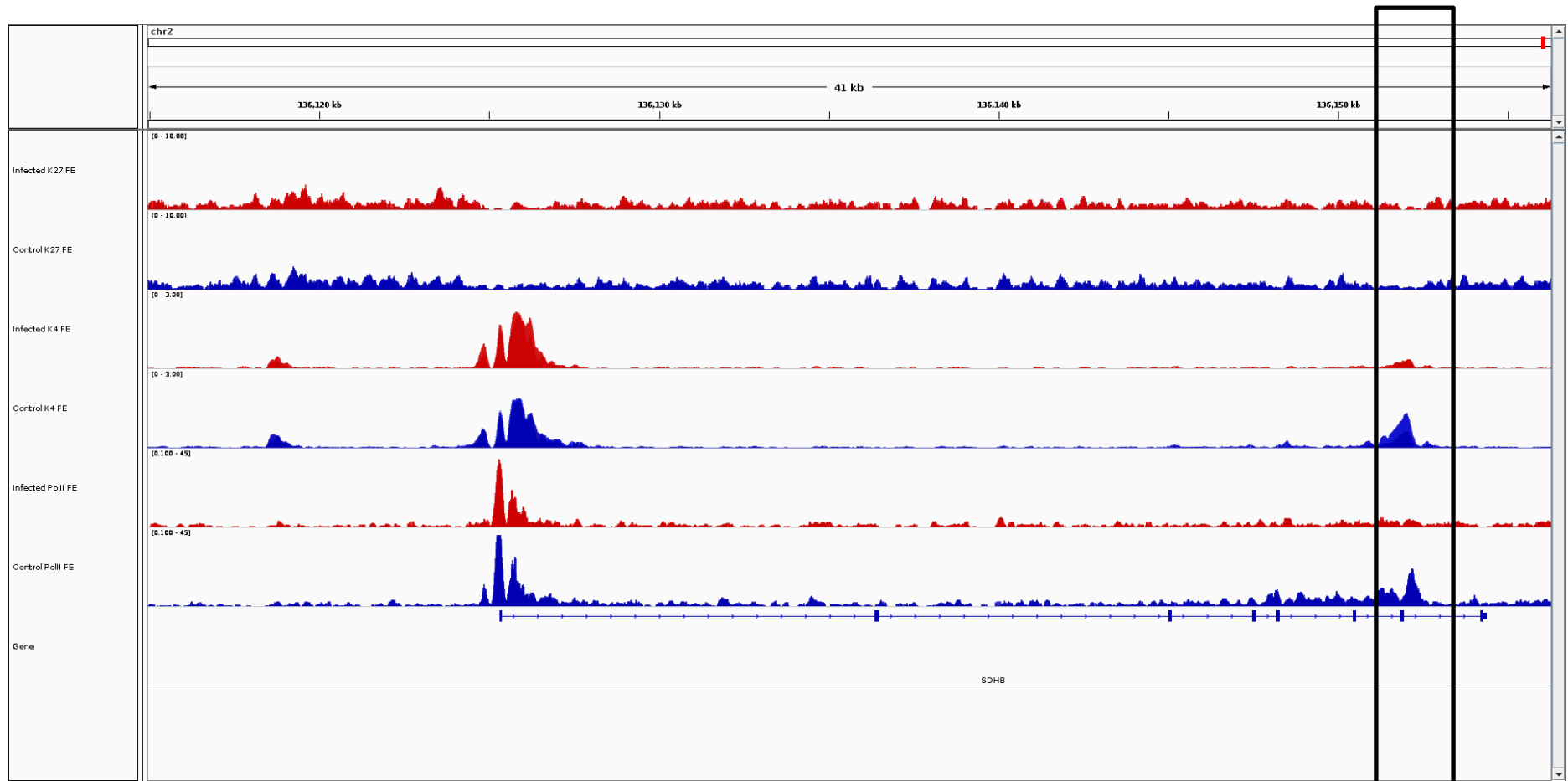
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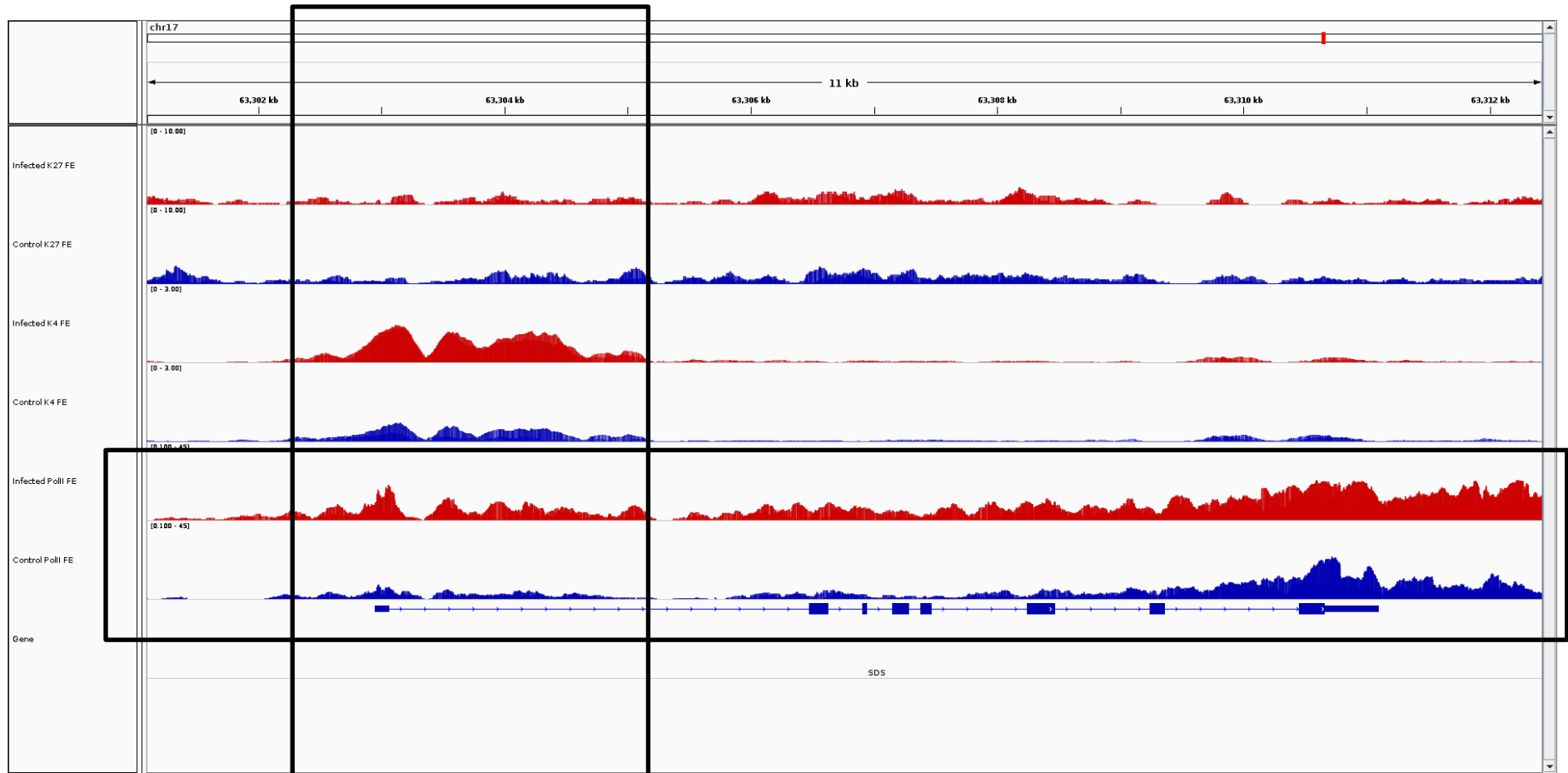
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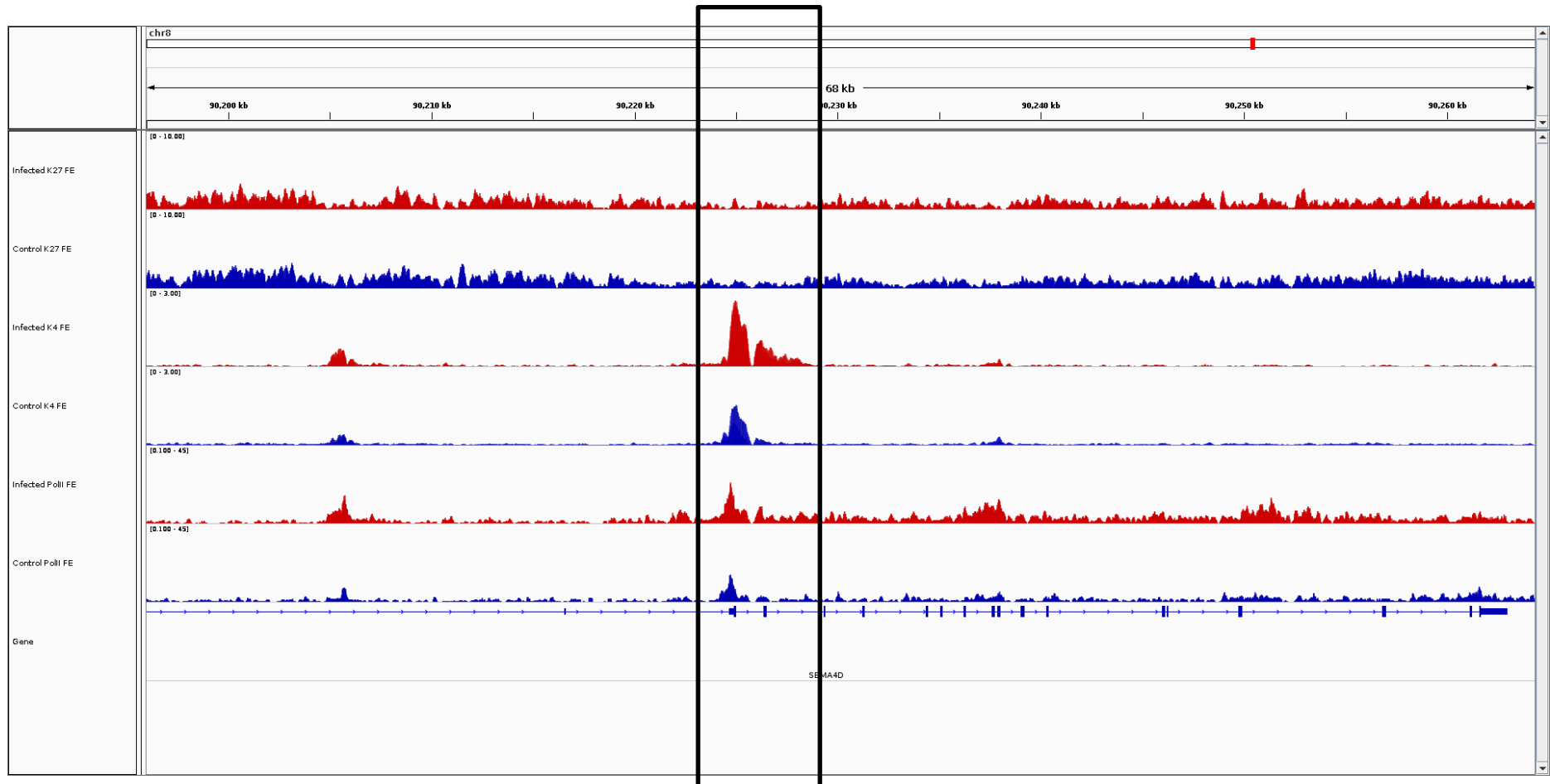
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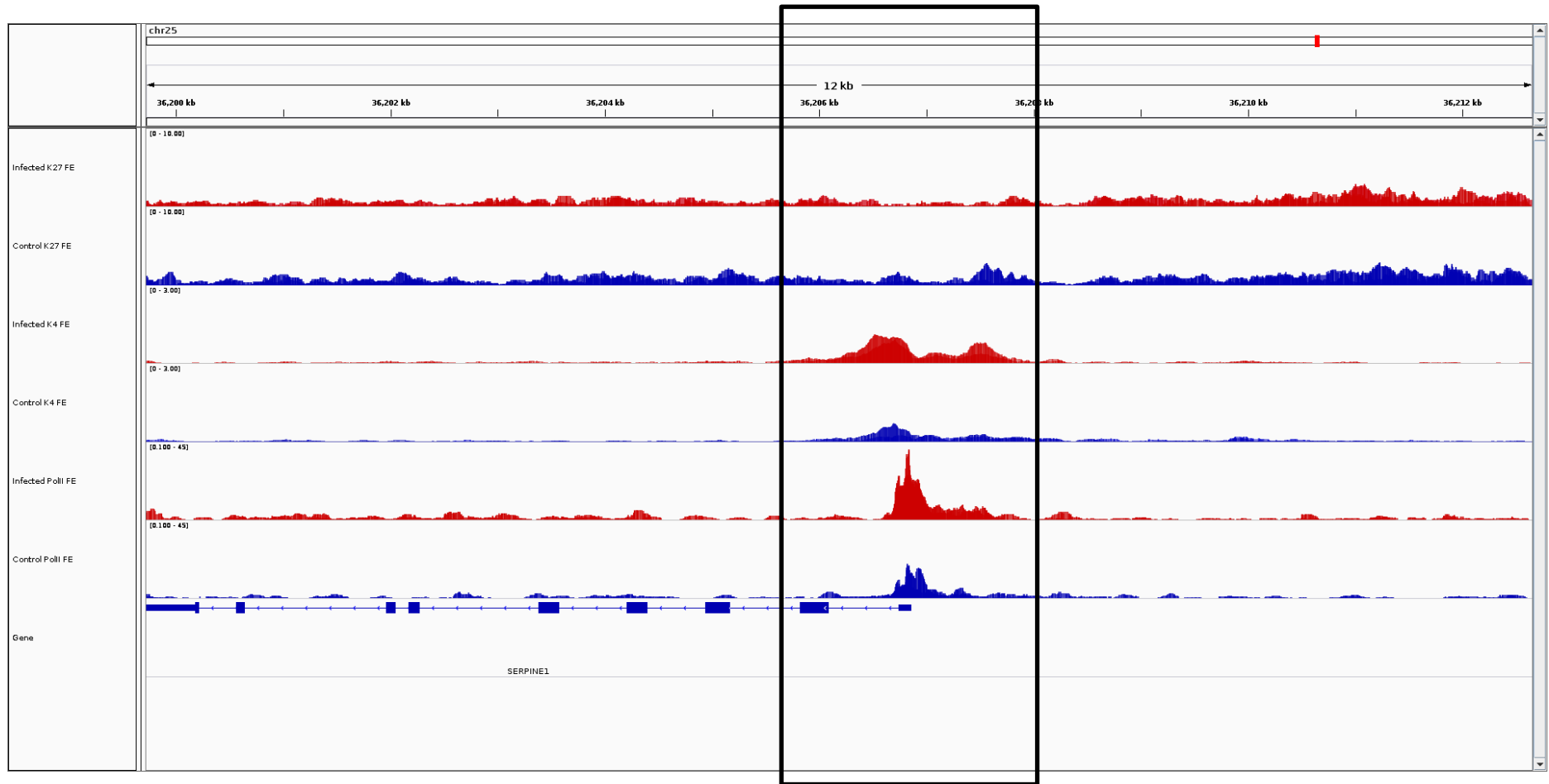
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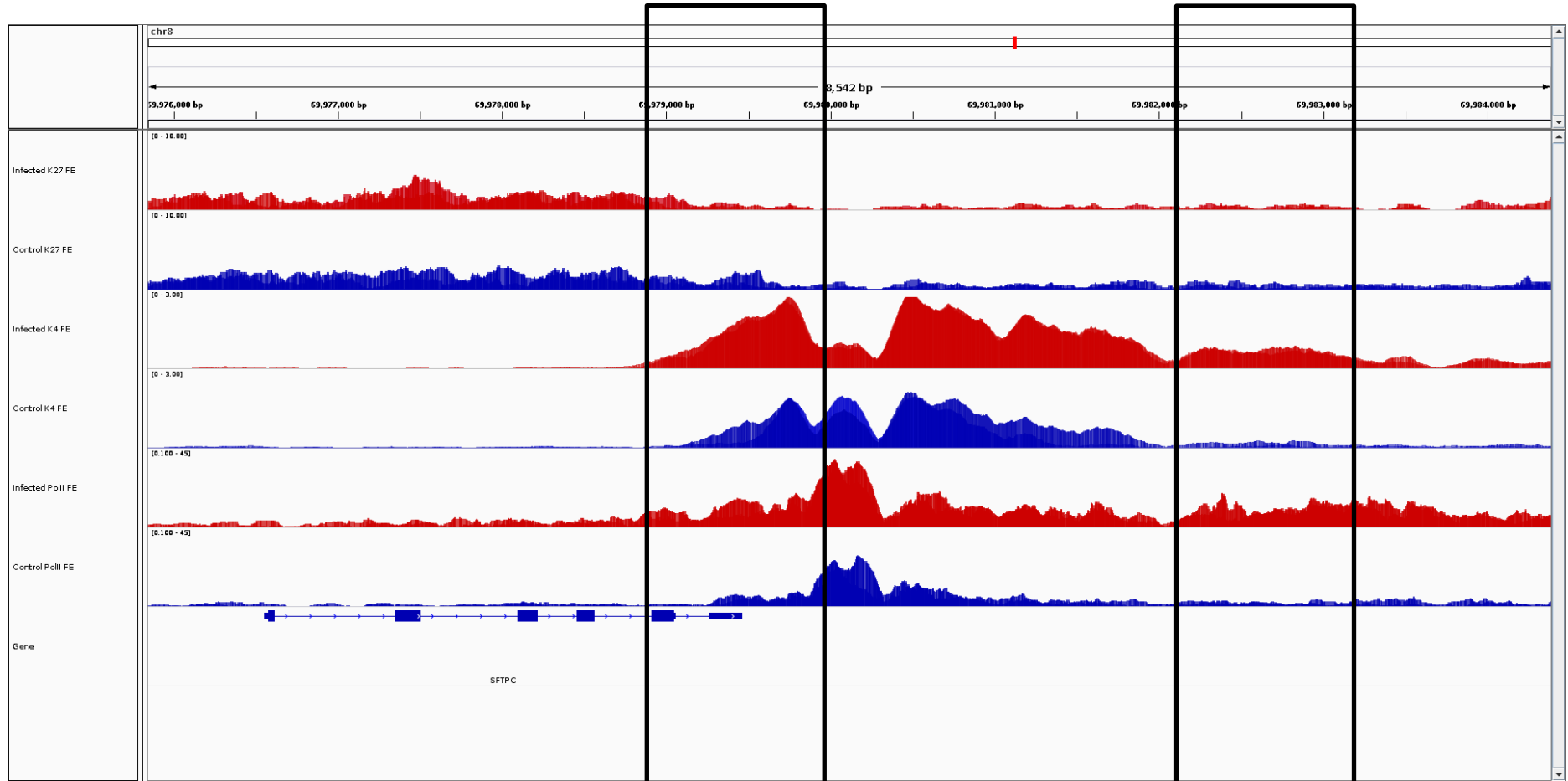
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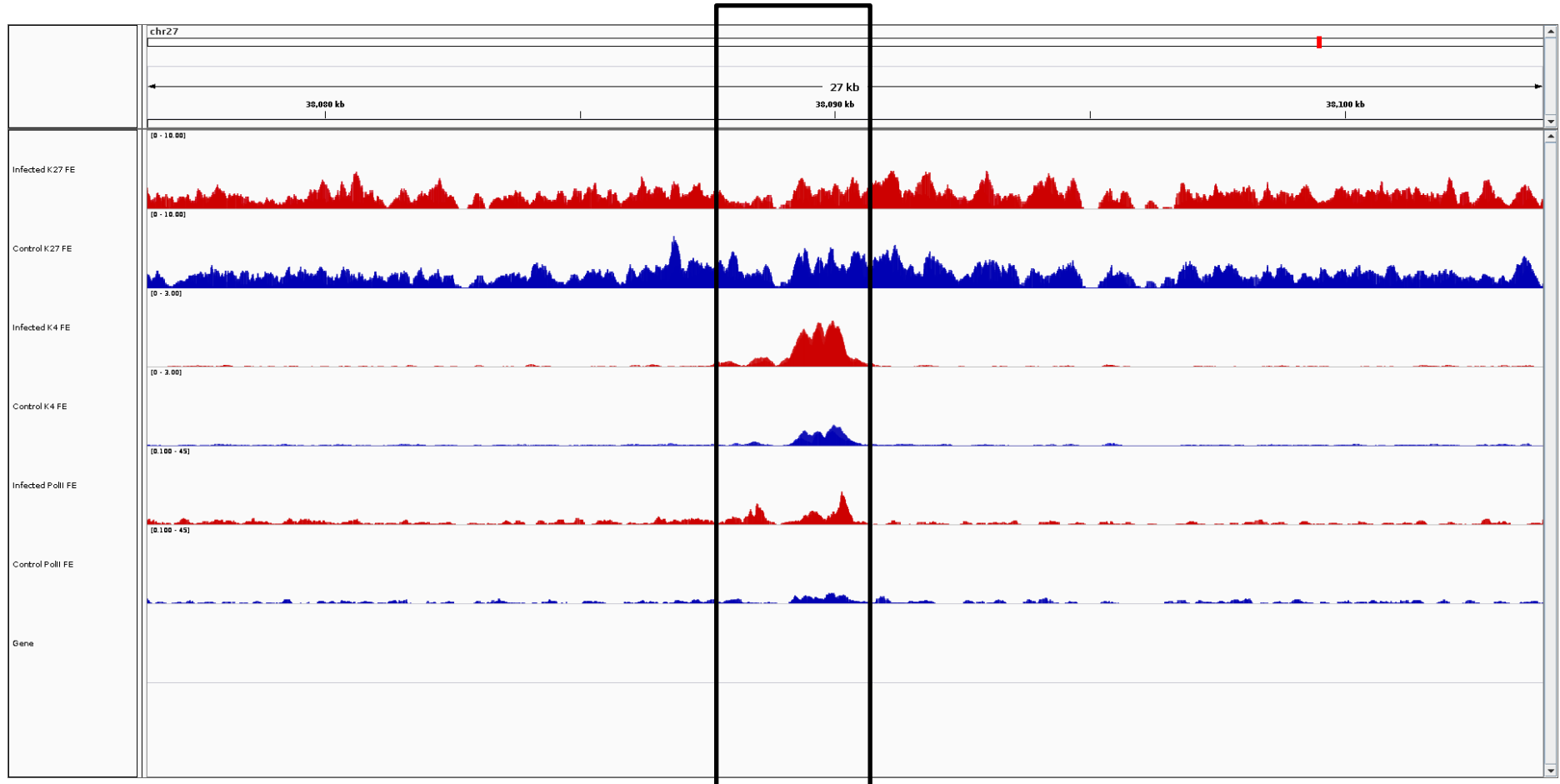
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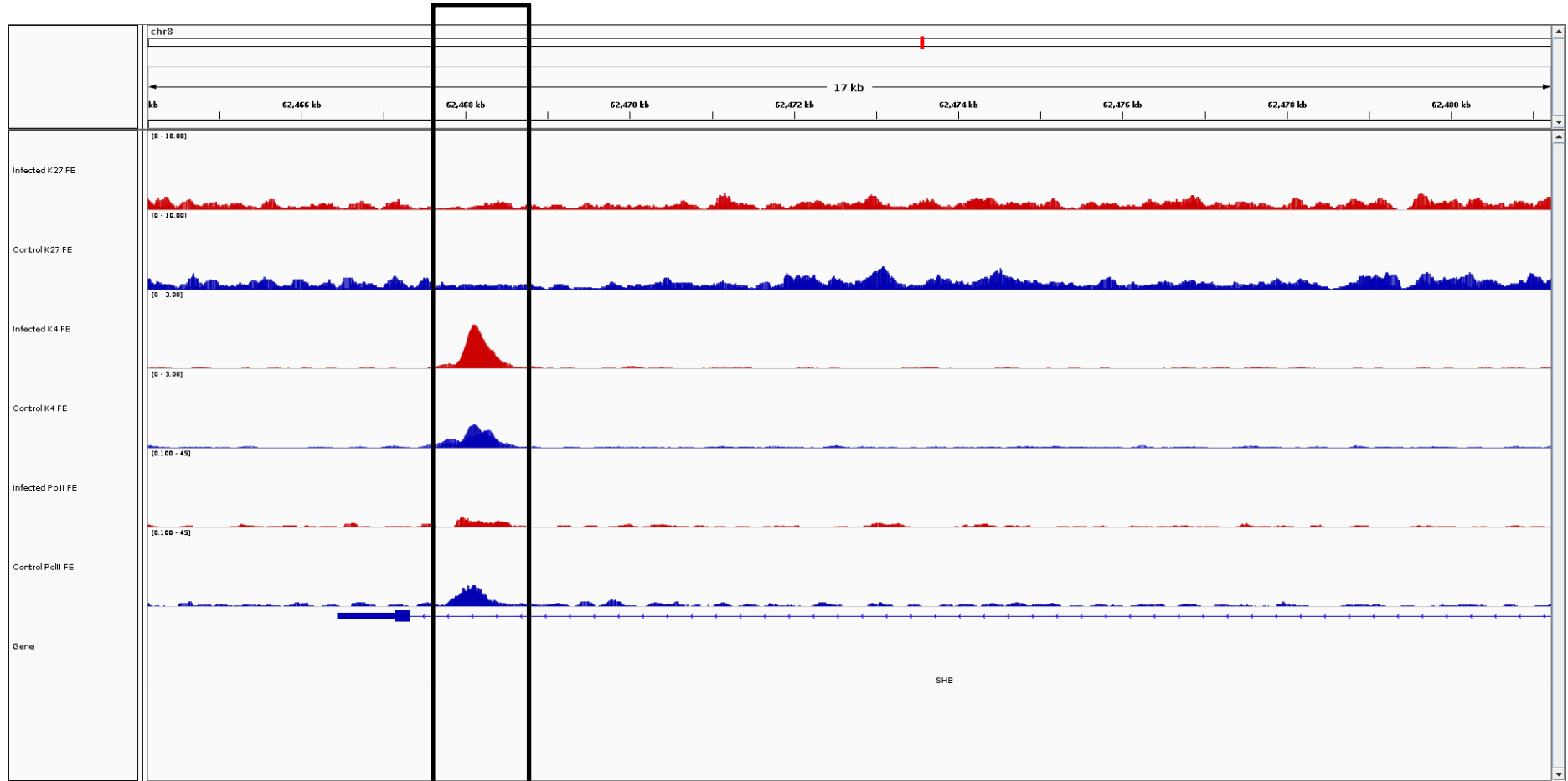
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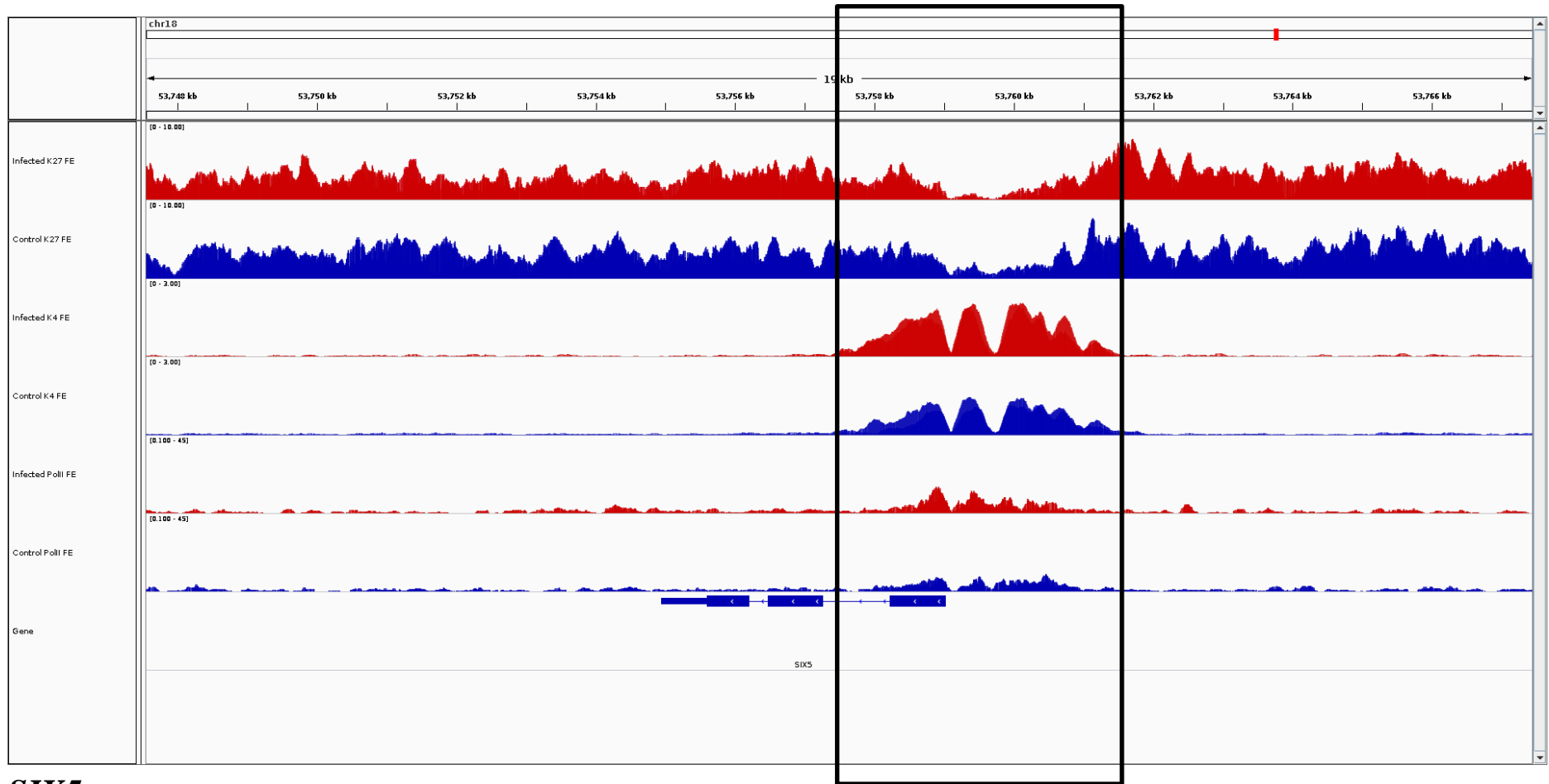
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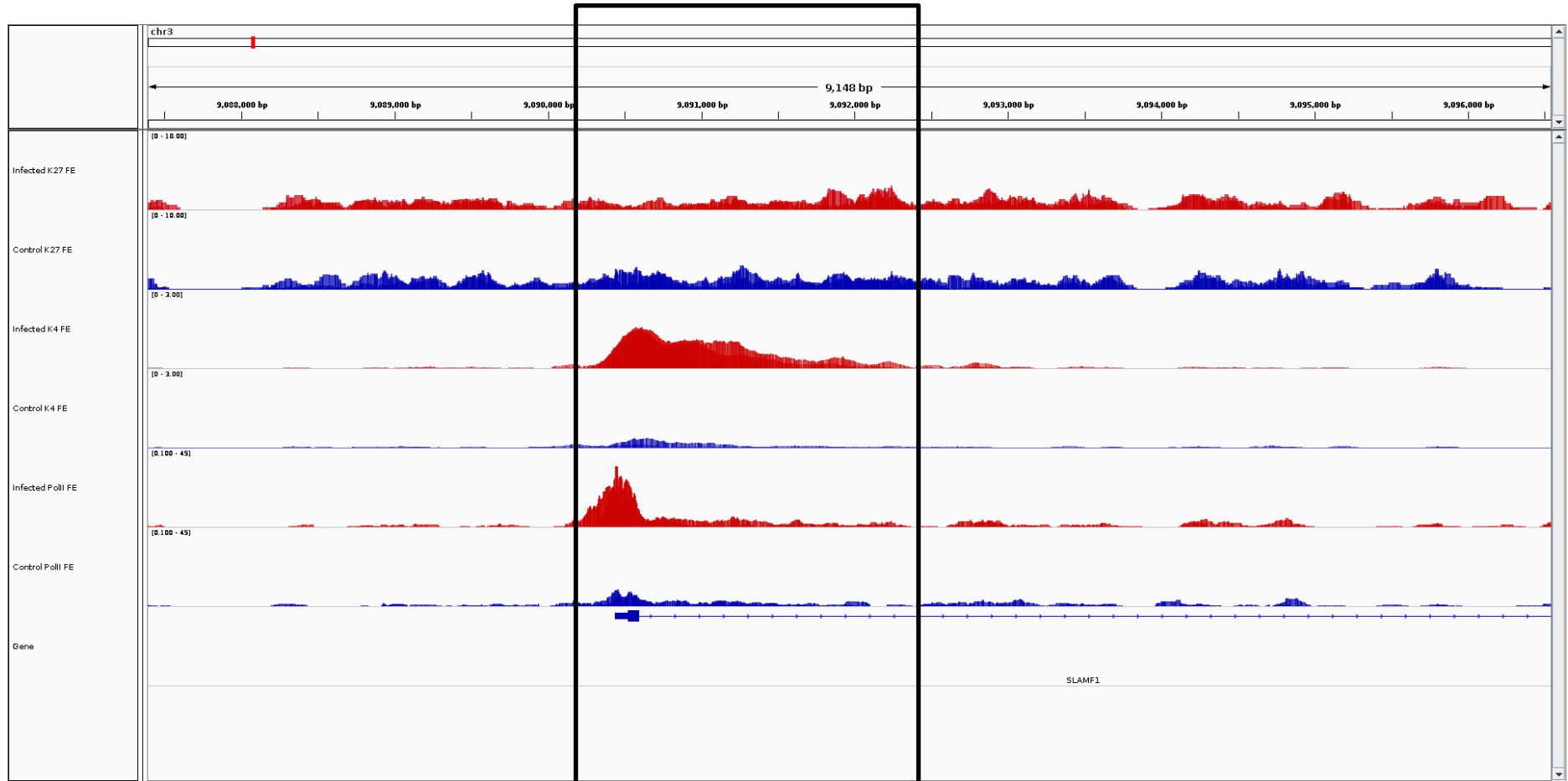
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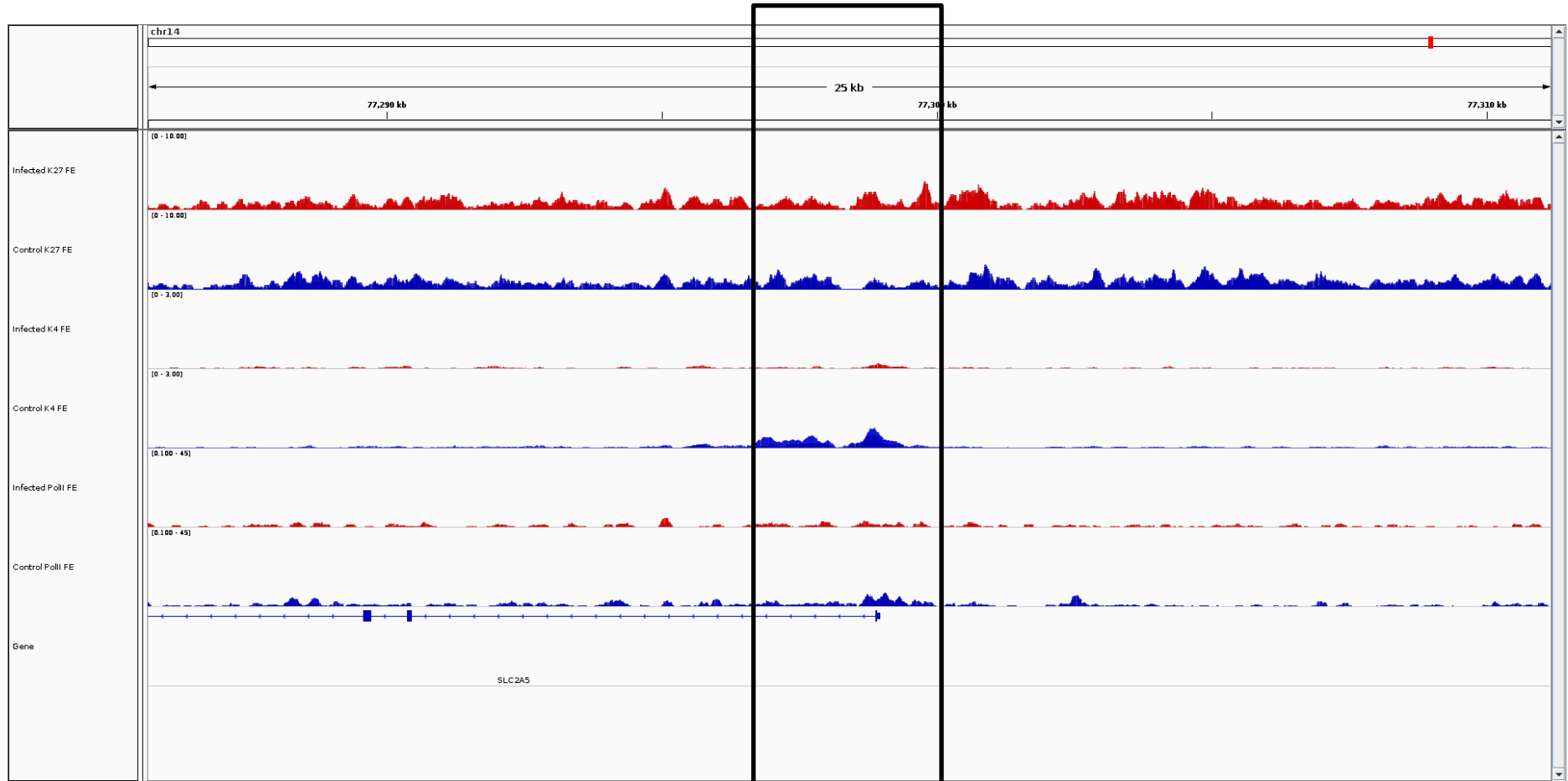
SHB



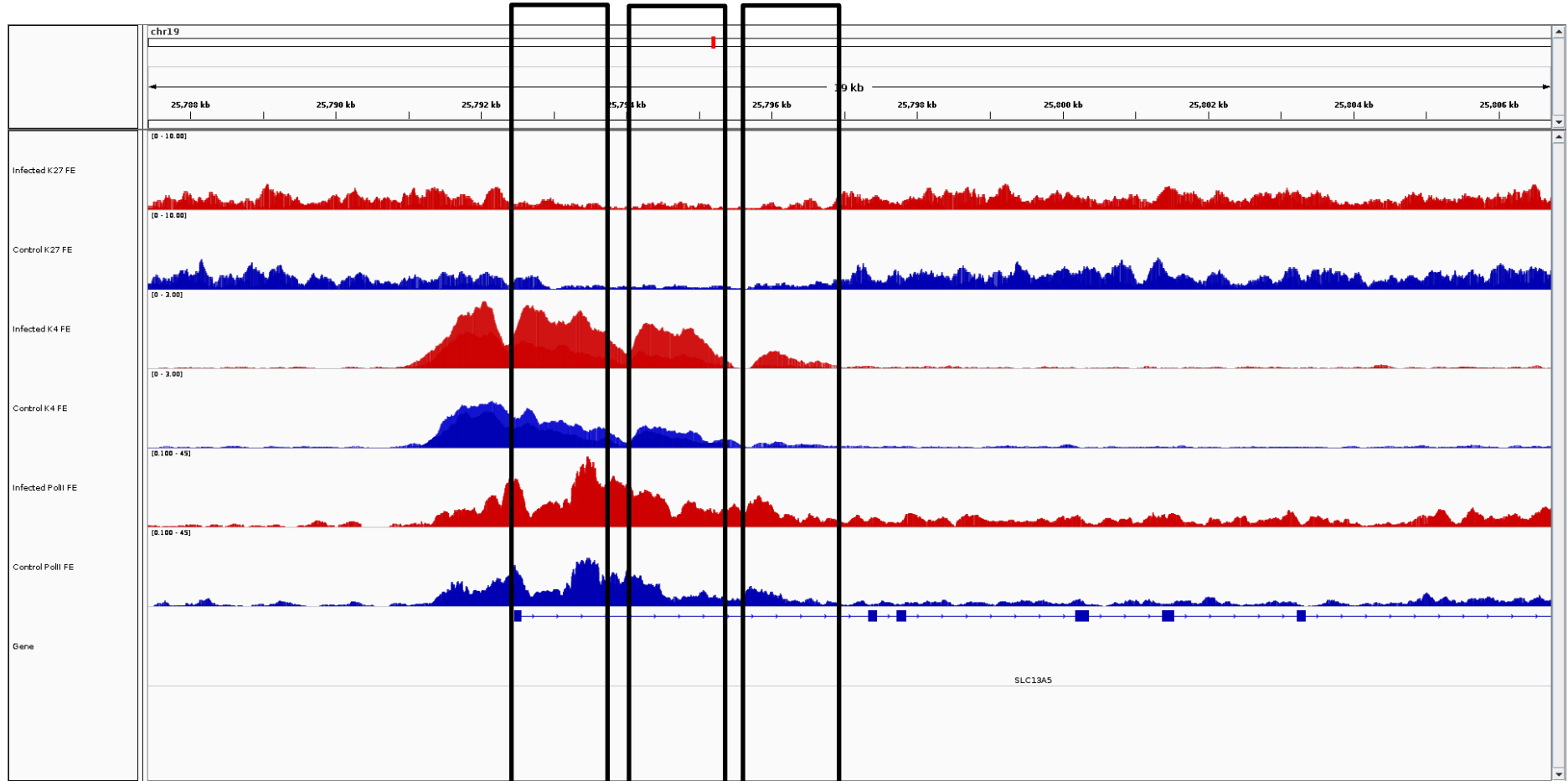
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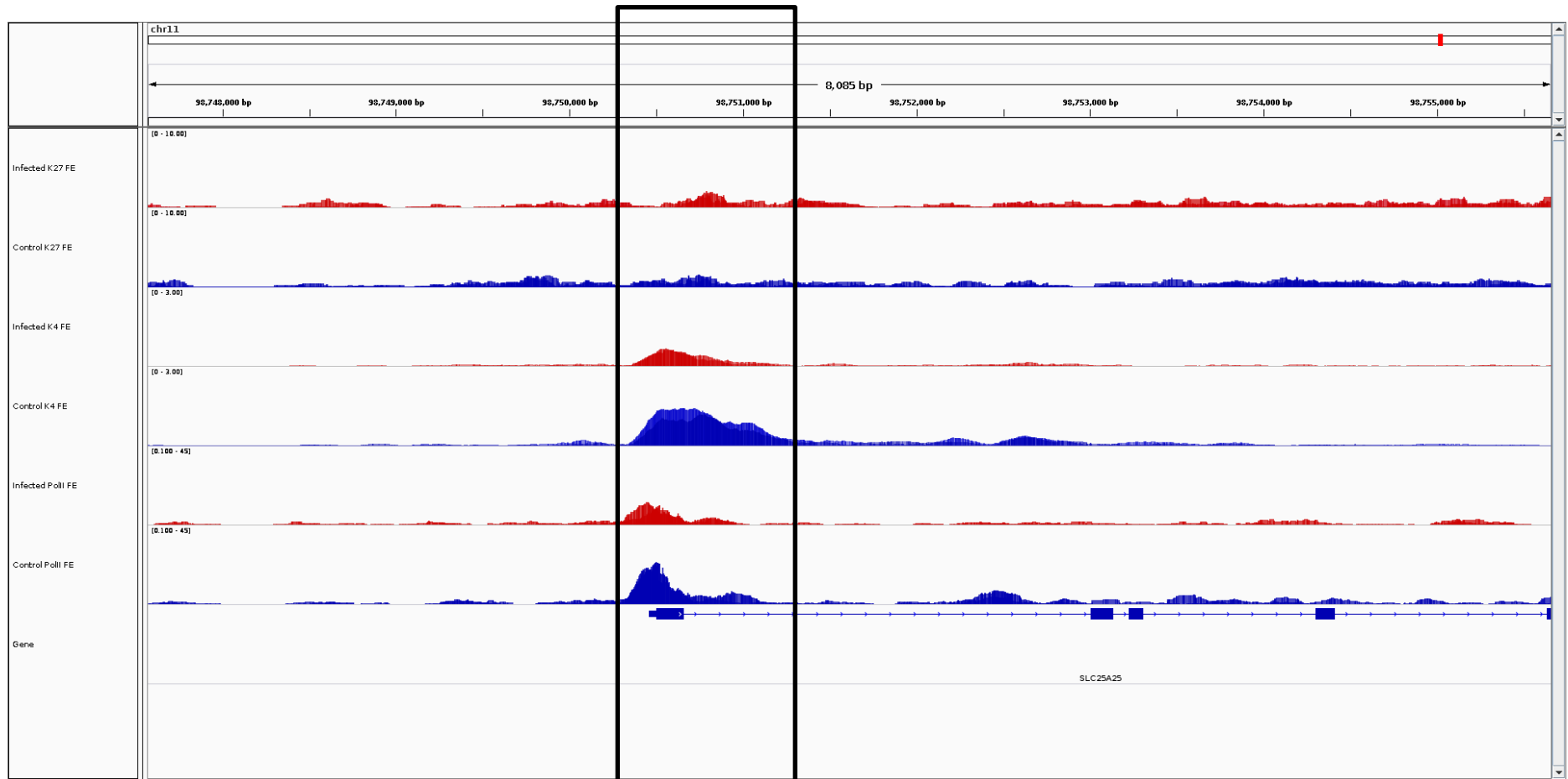
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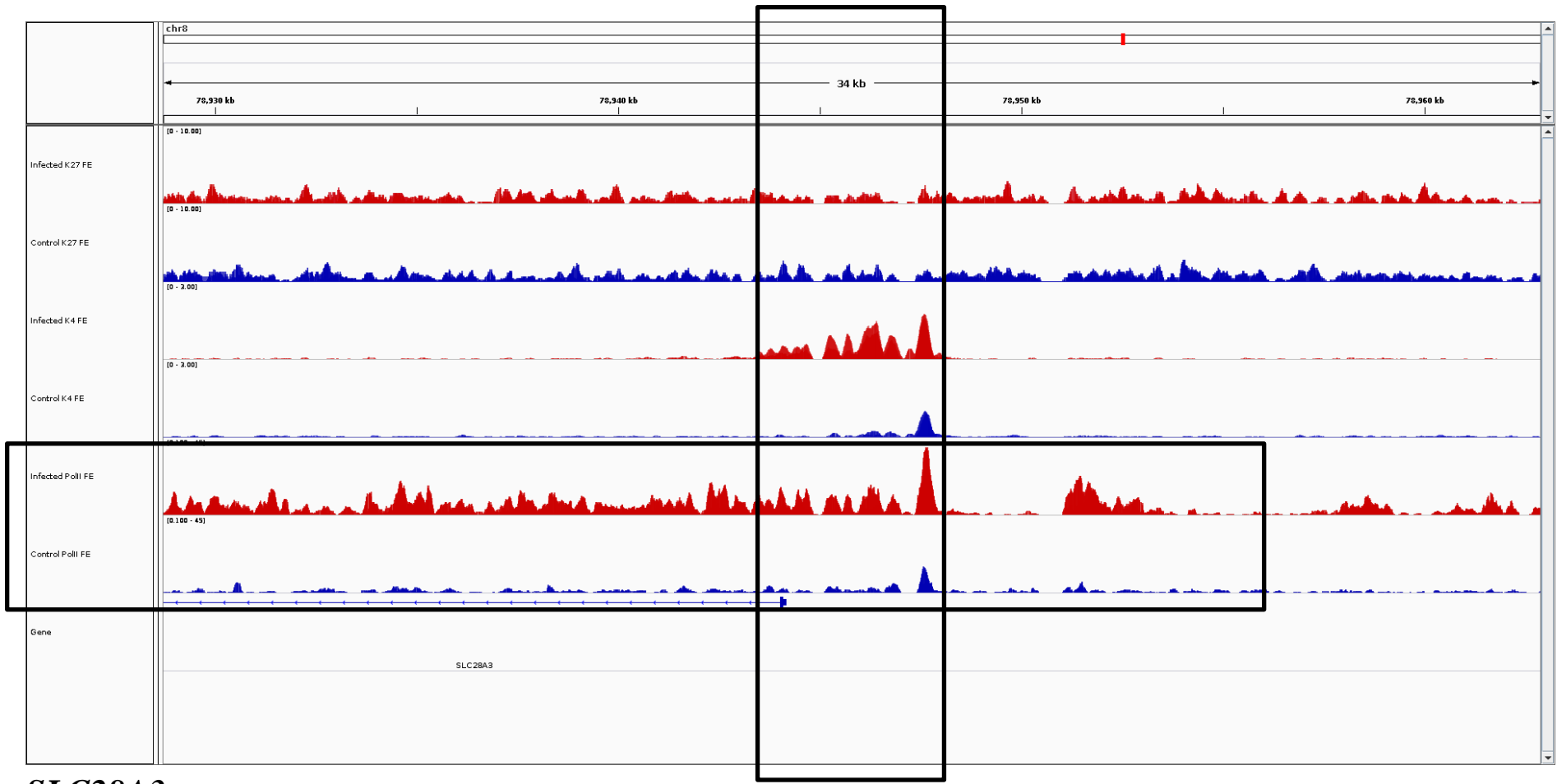
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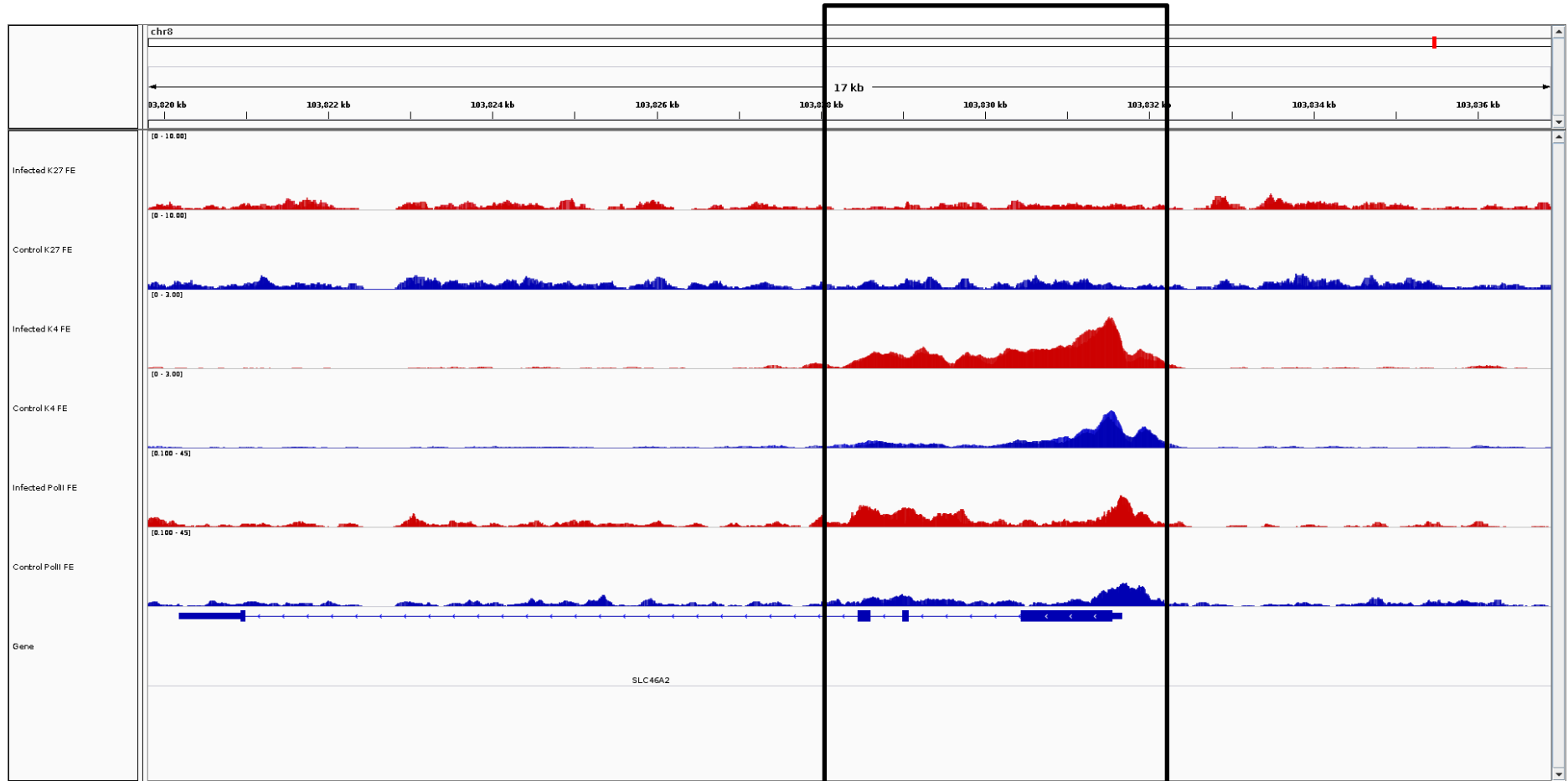
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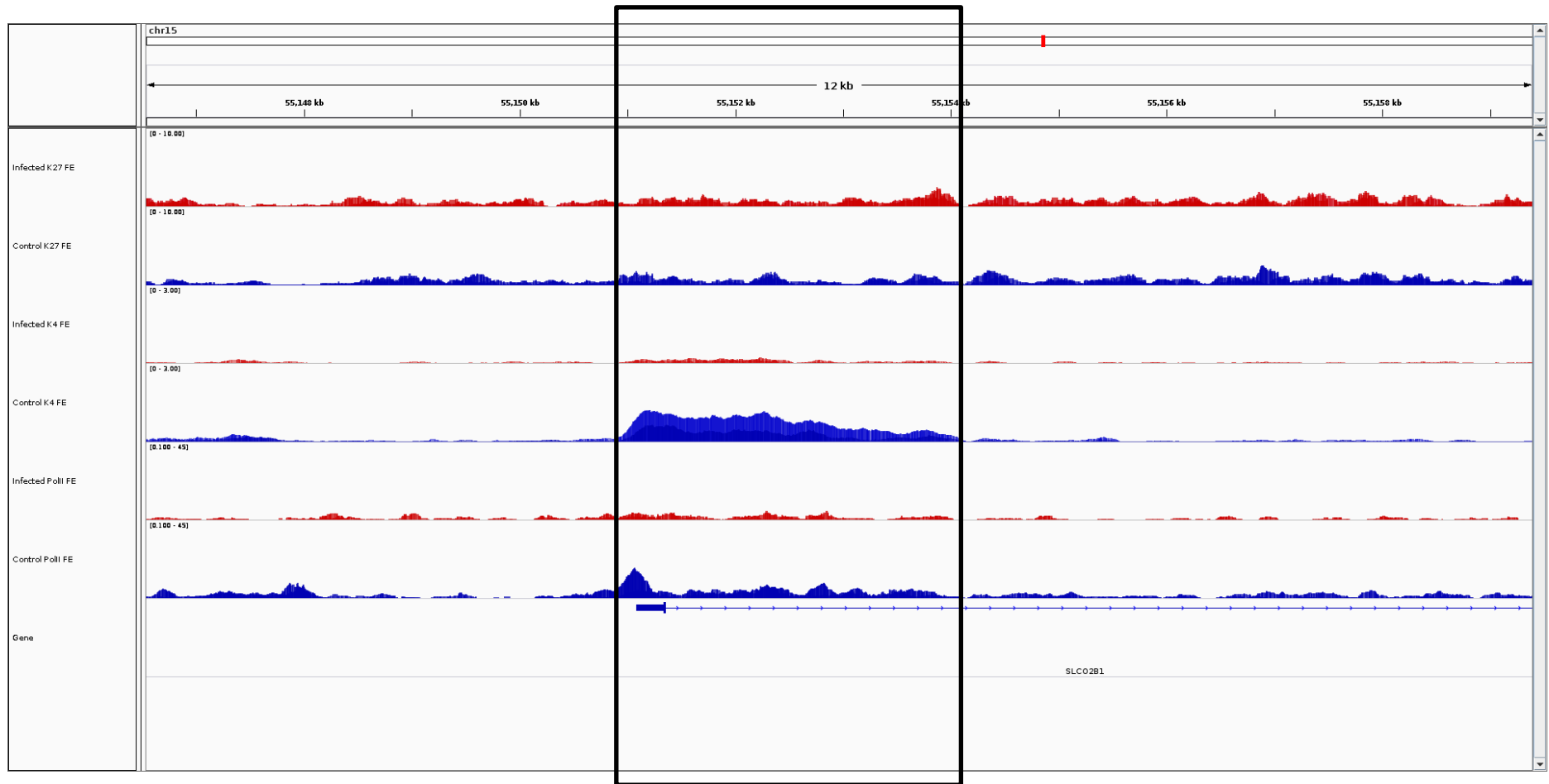
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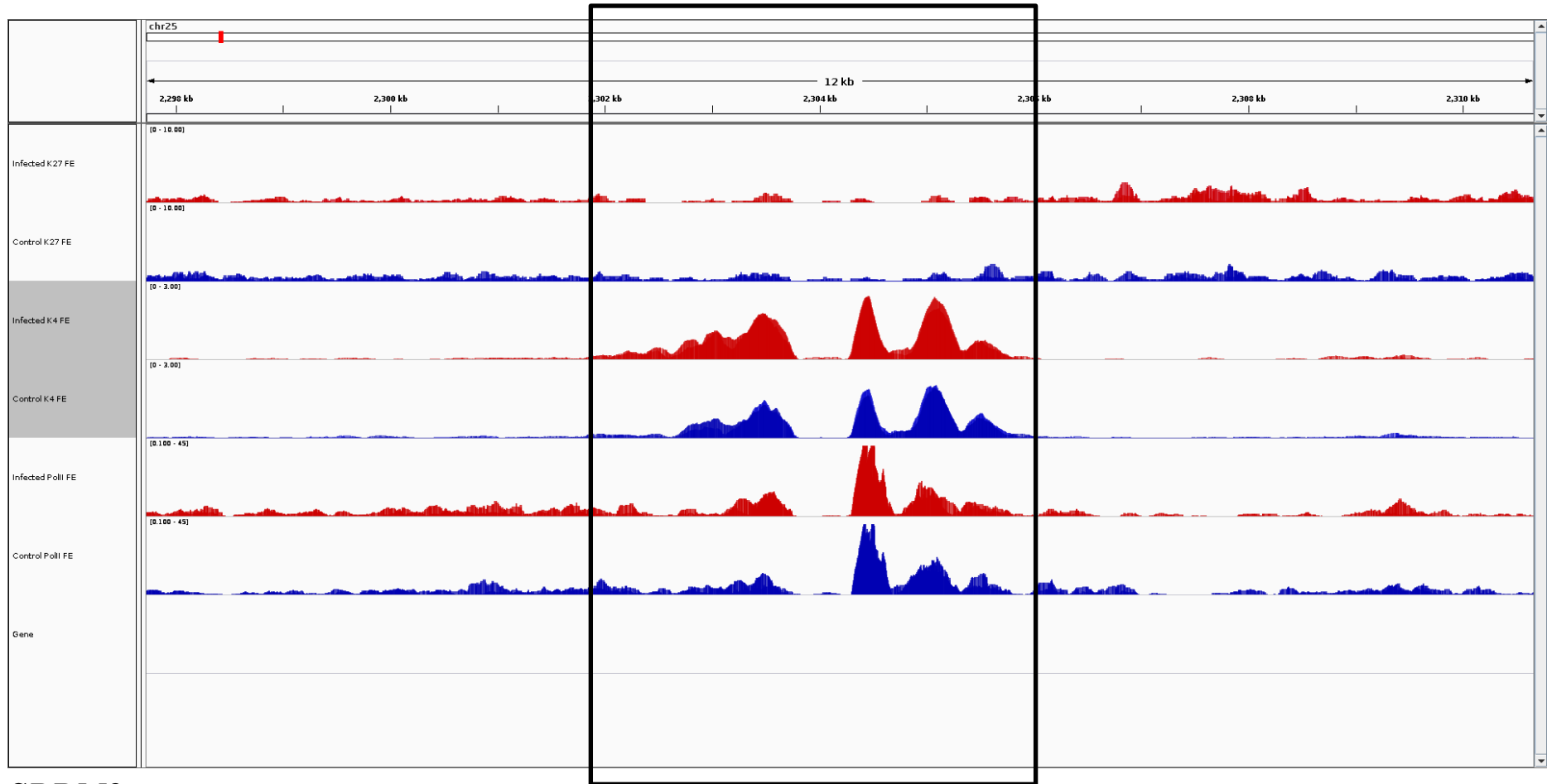
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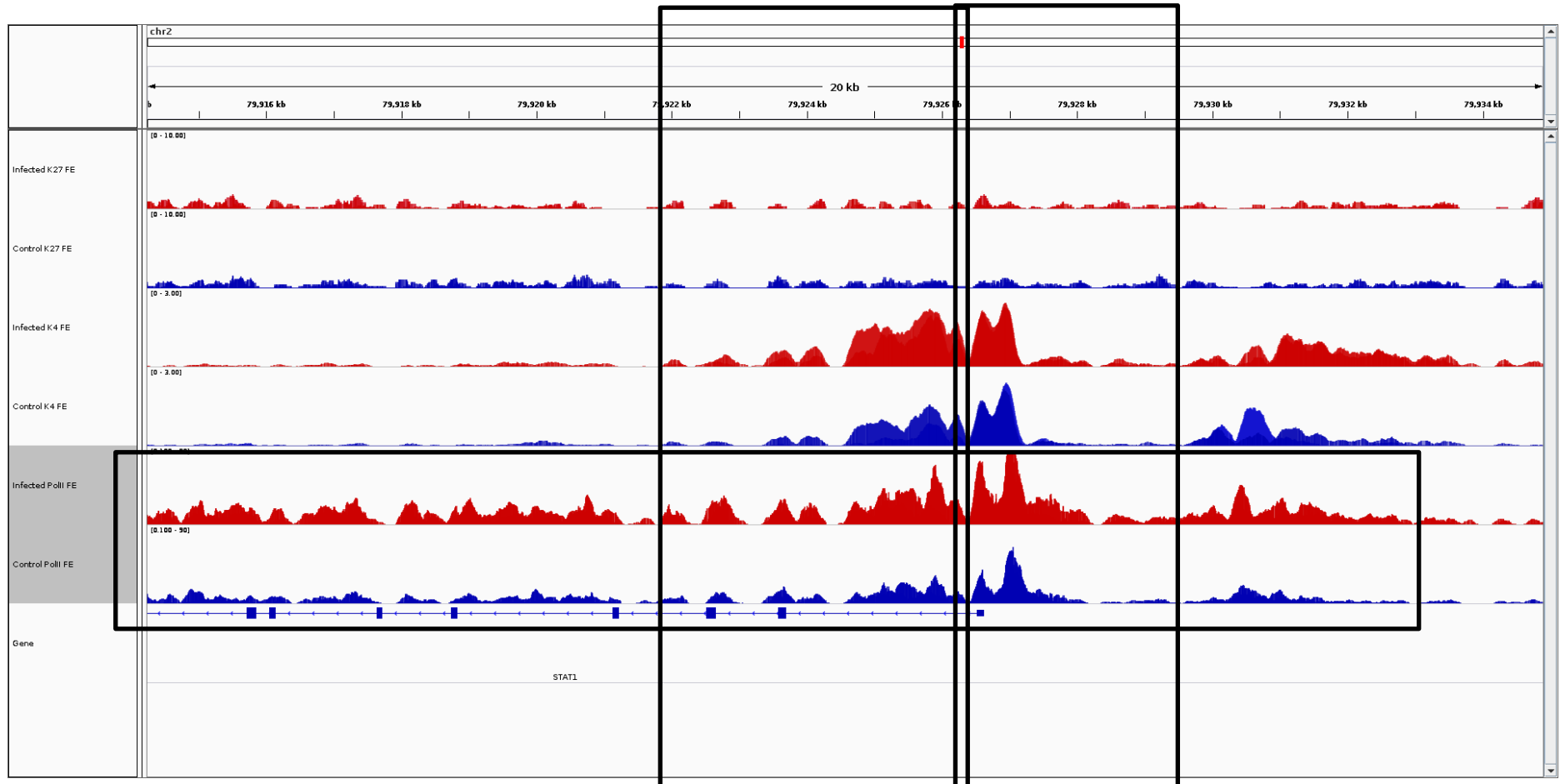
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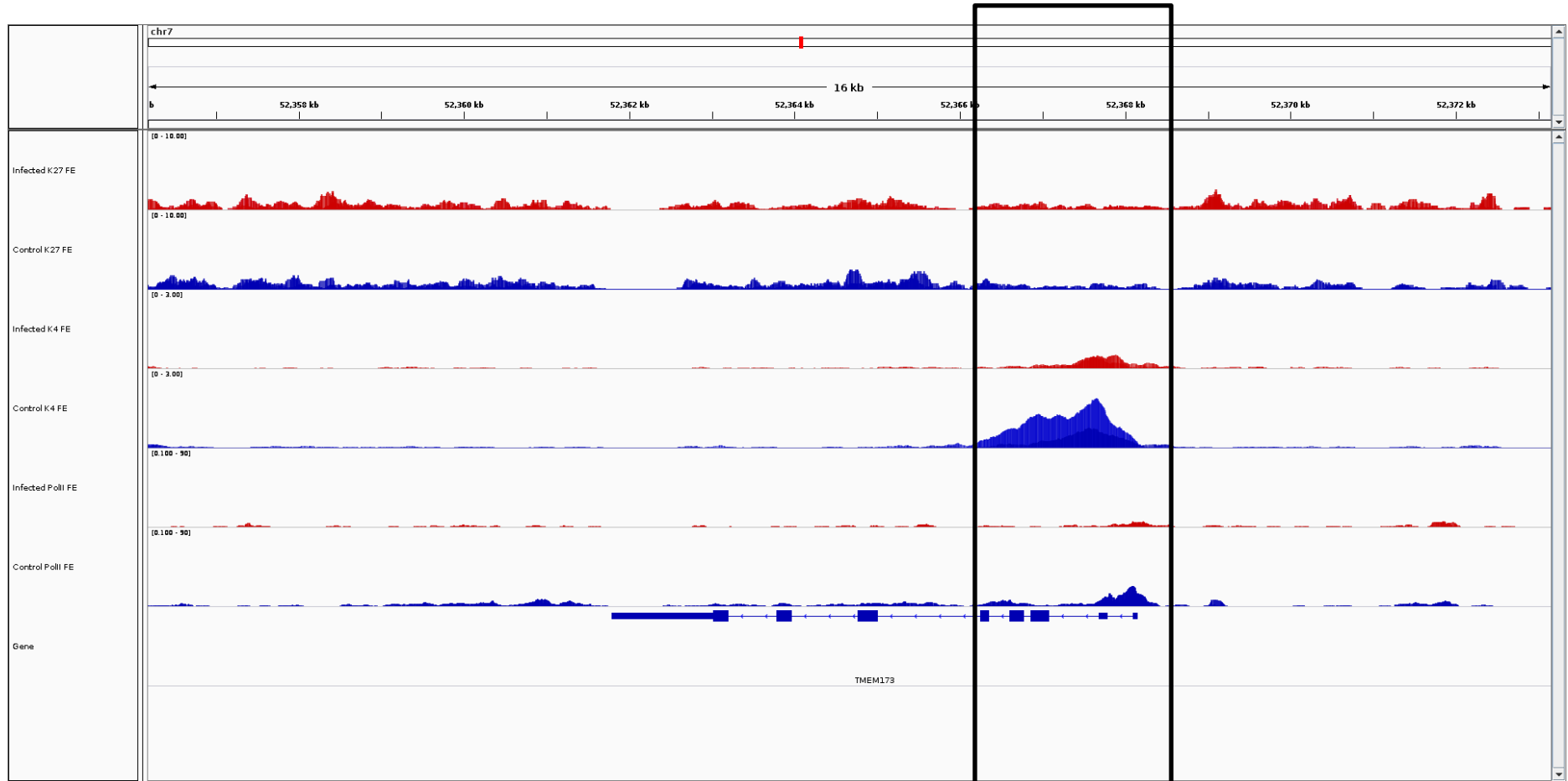
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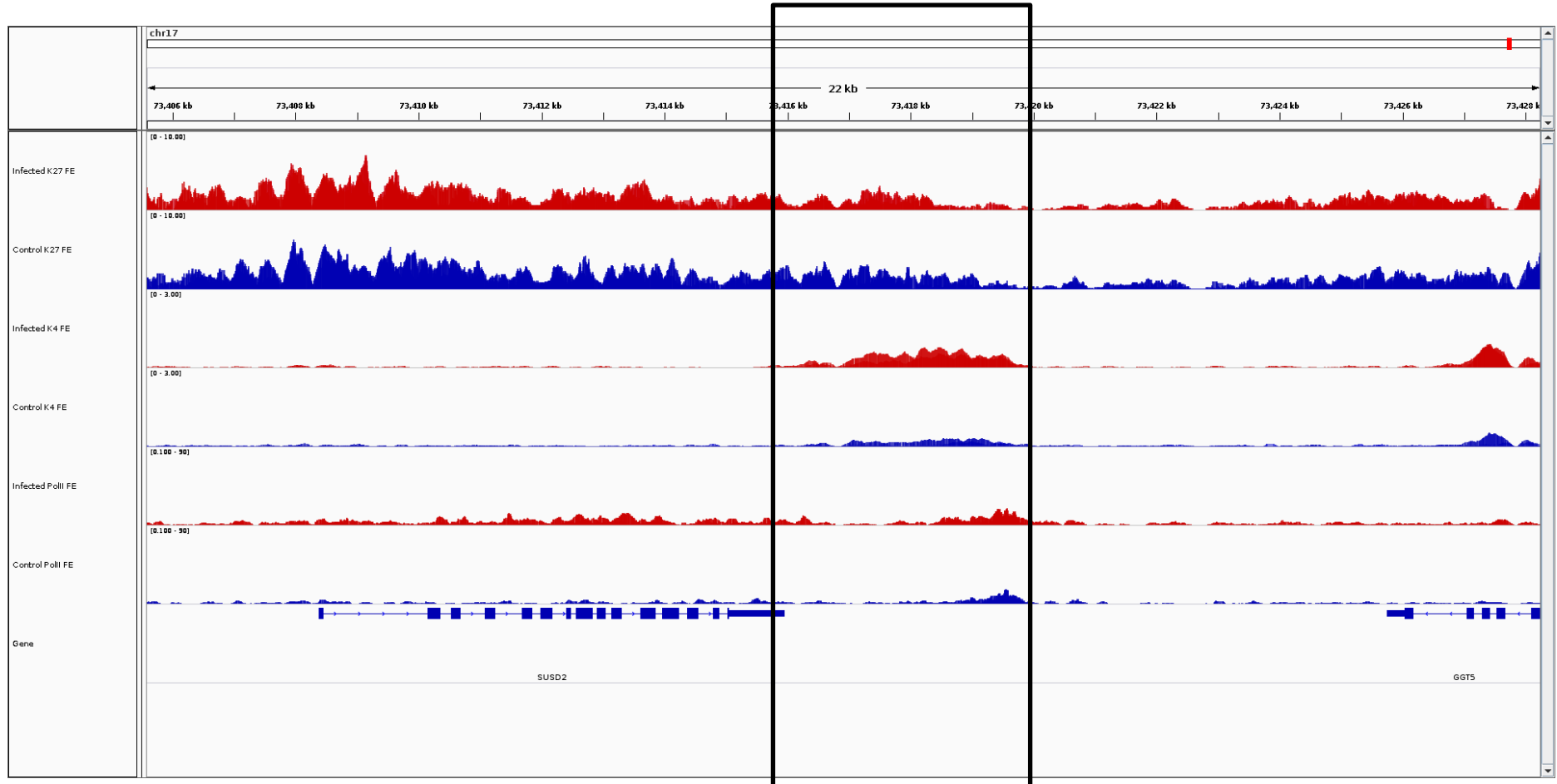
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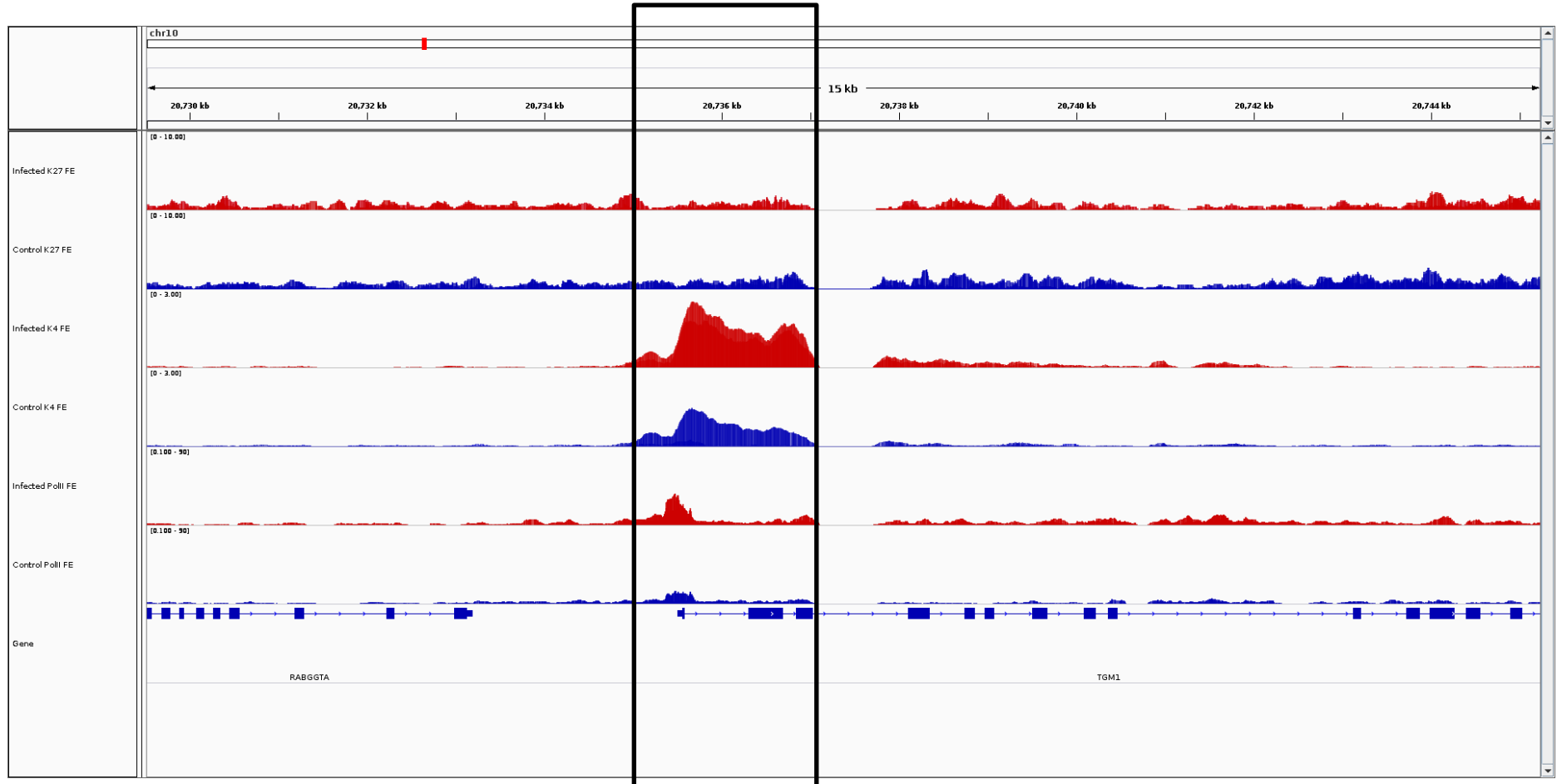
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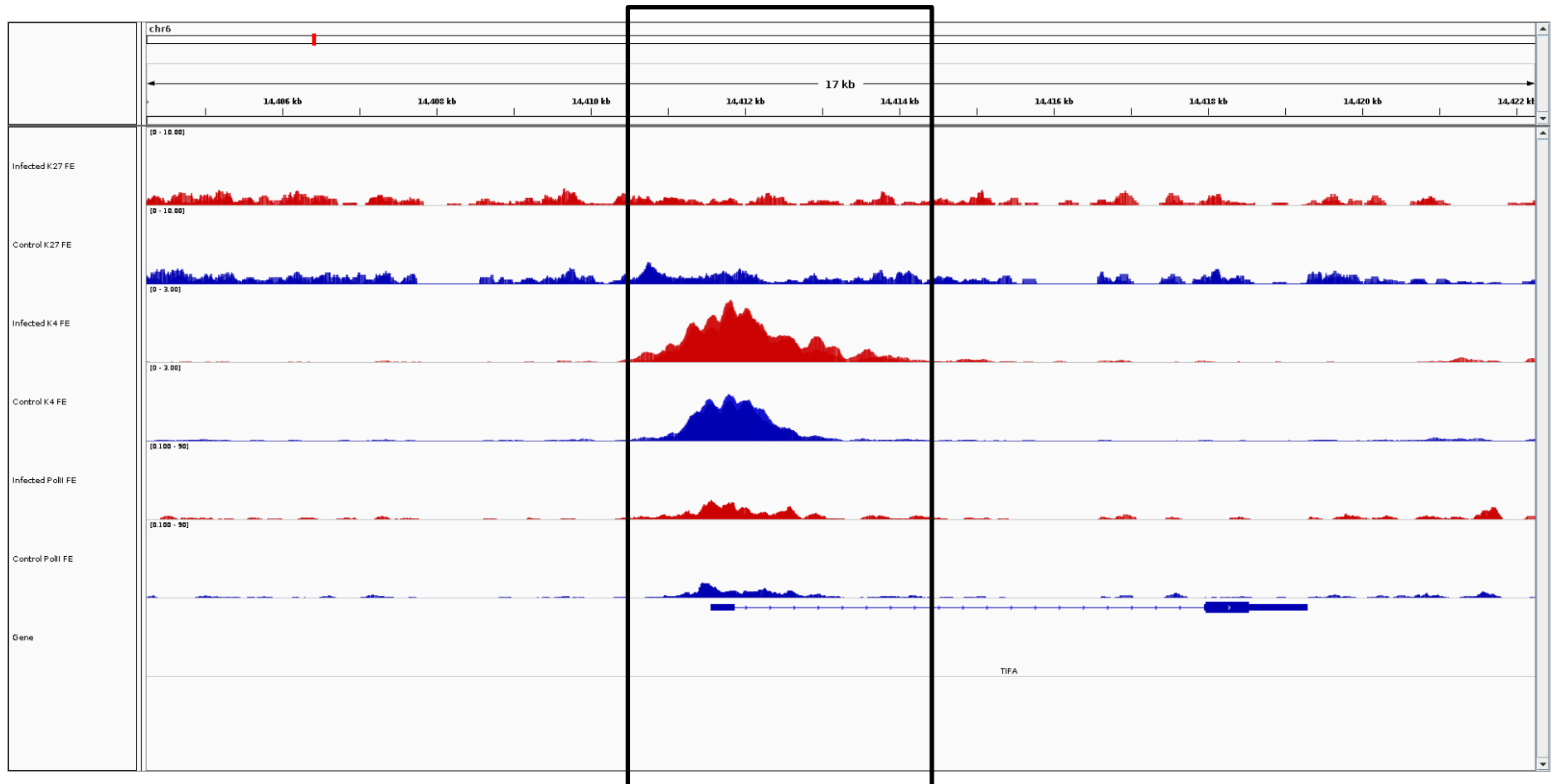
STING



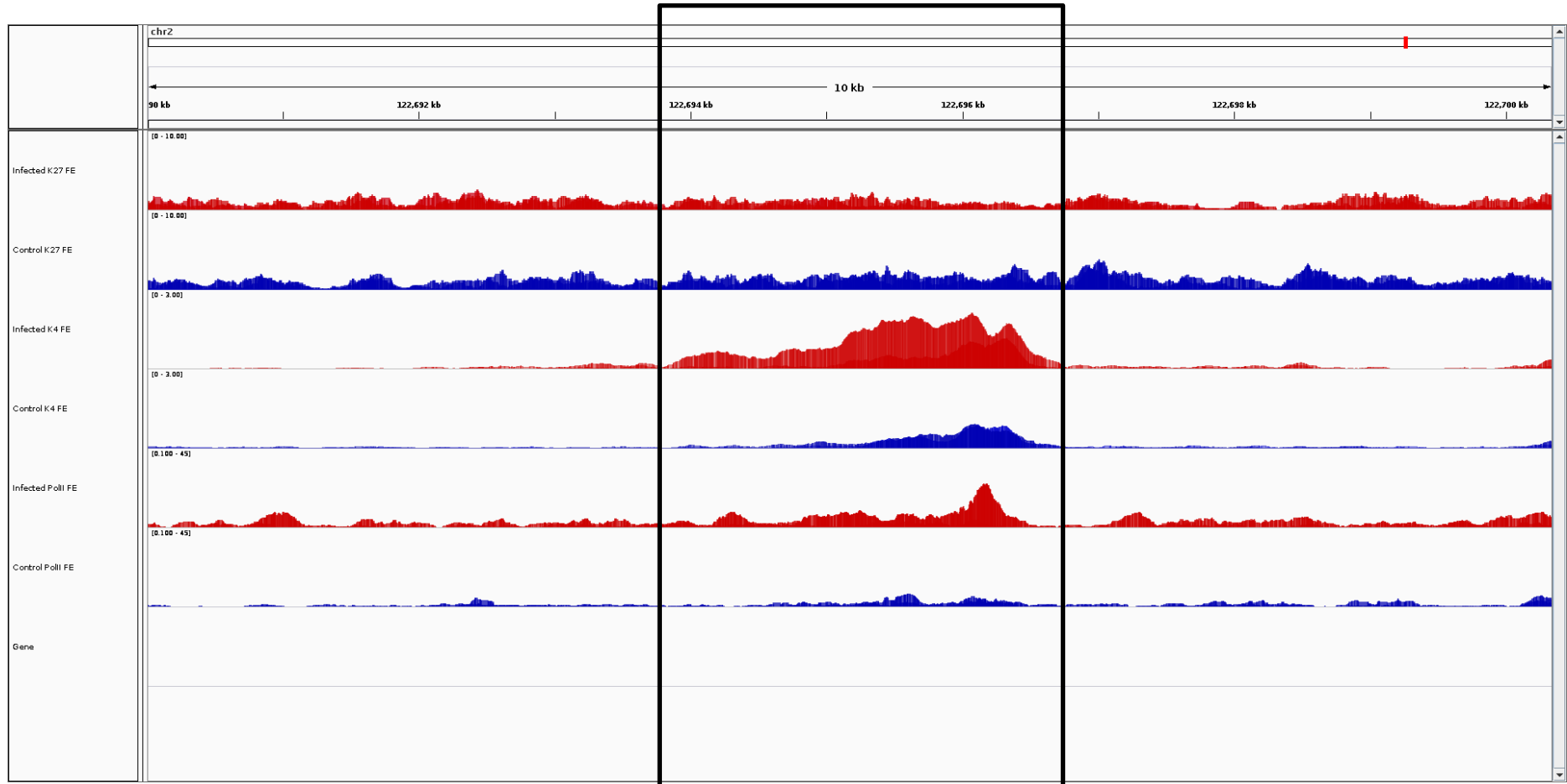
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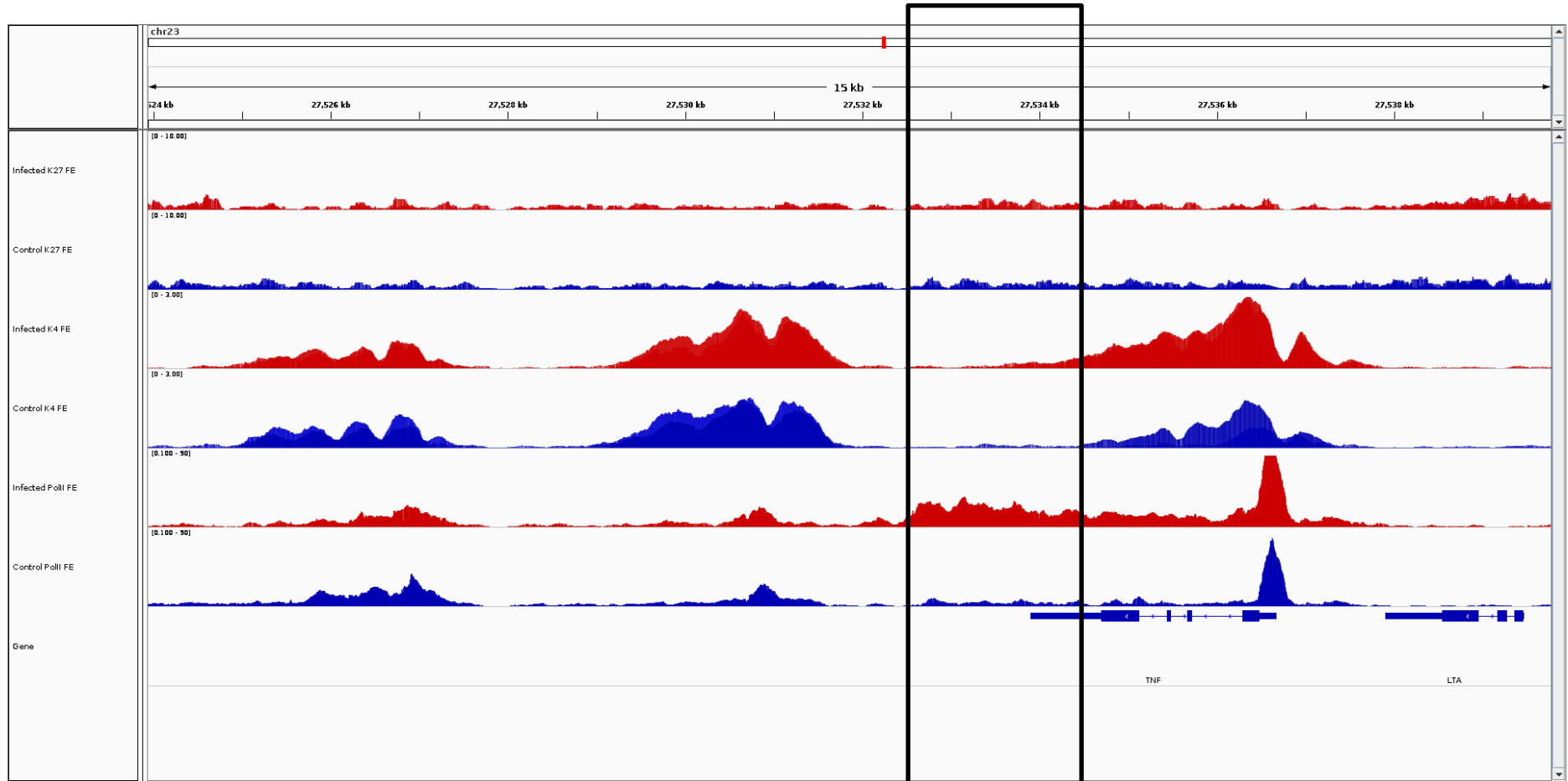
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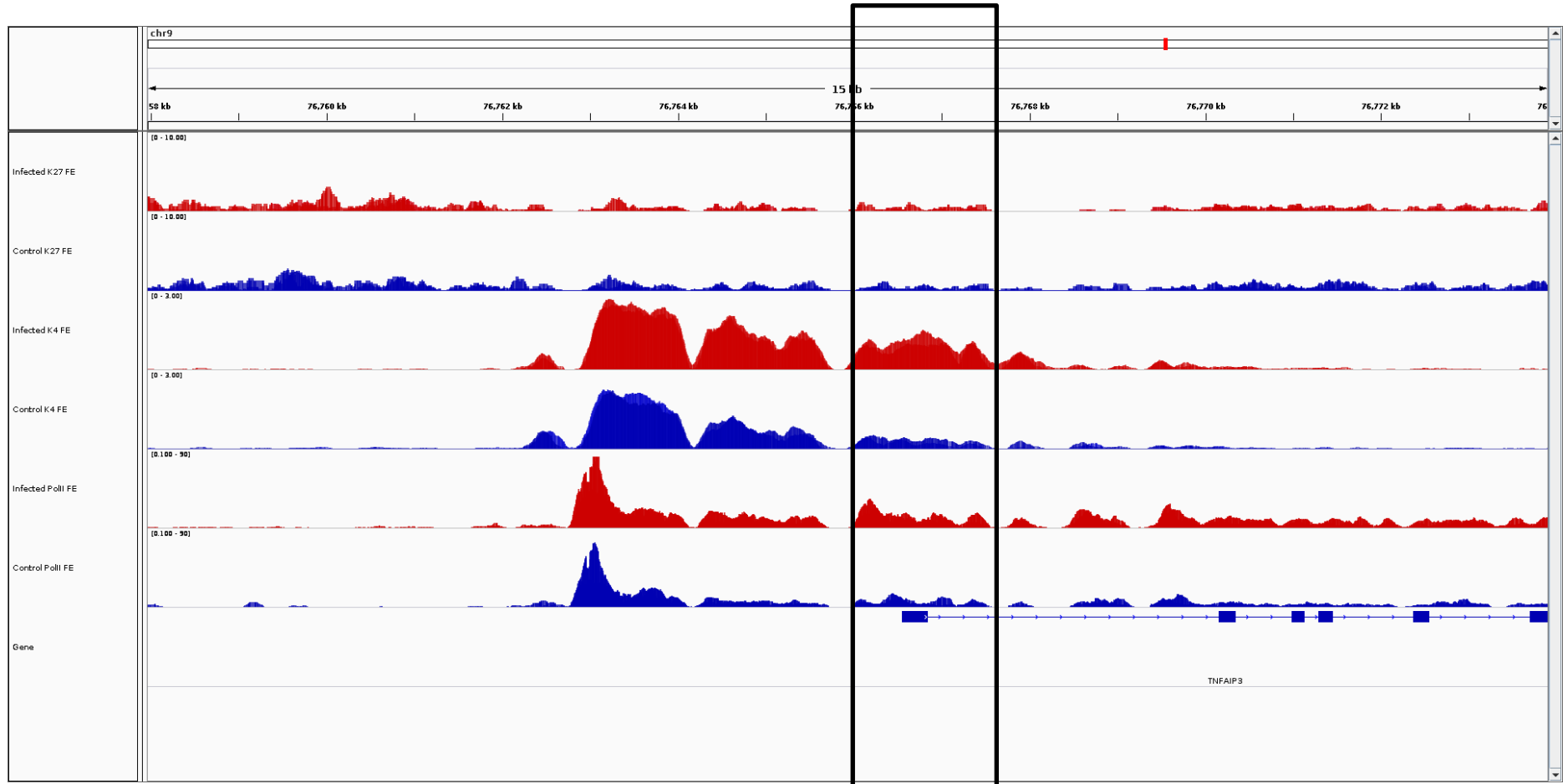
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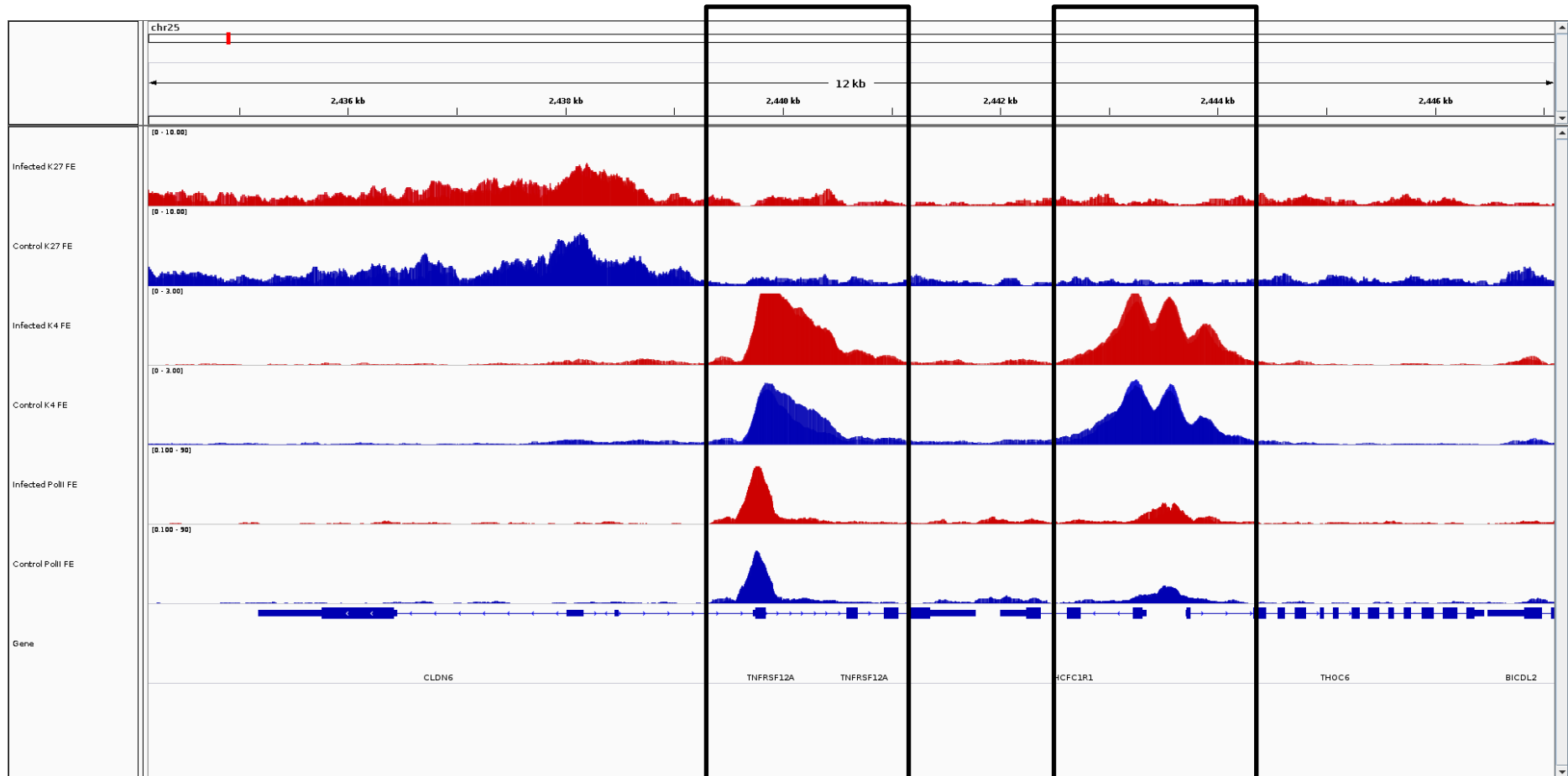
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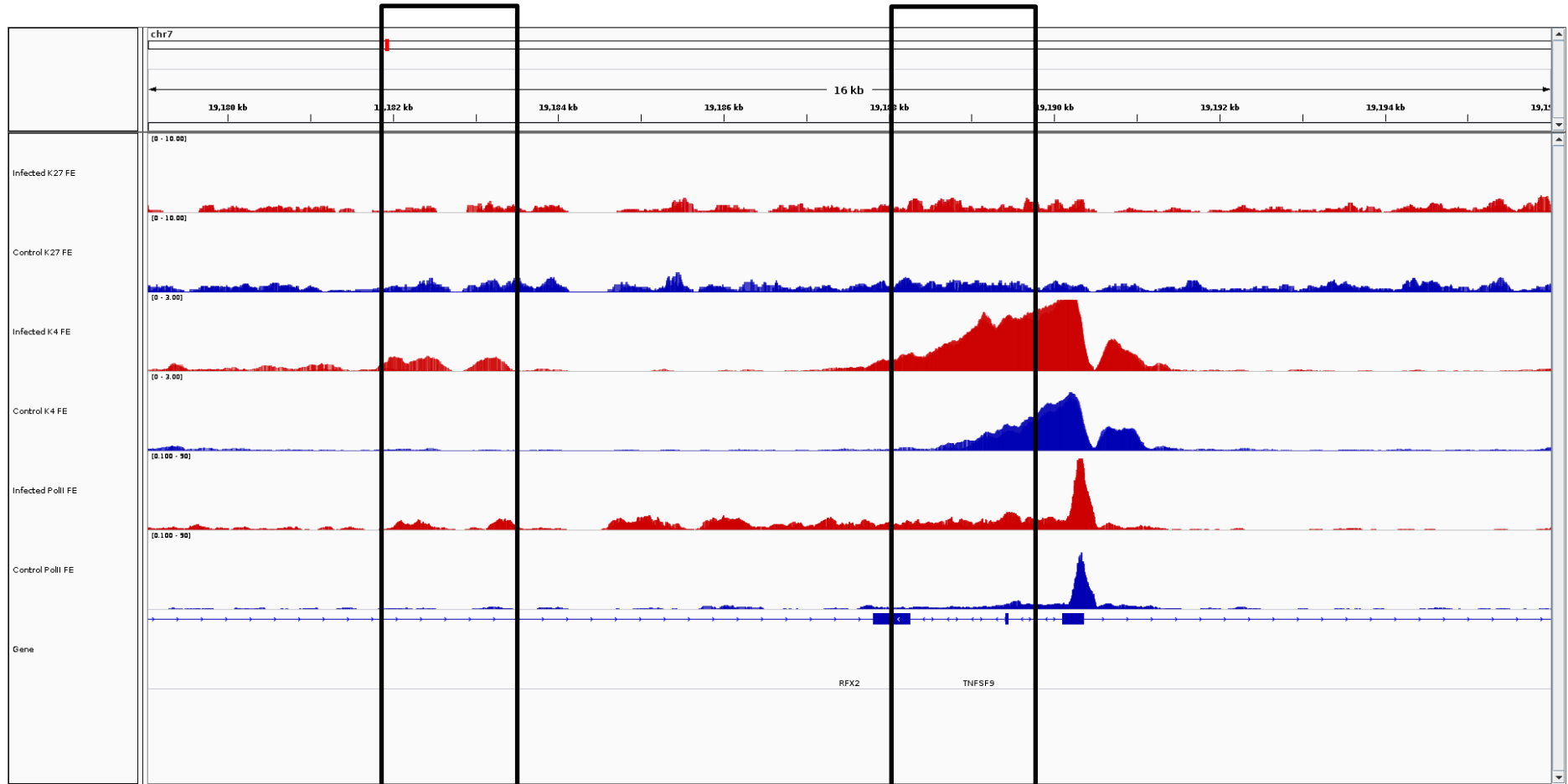
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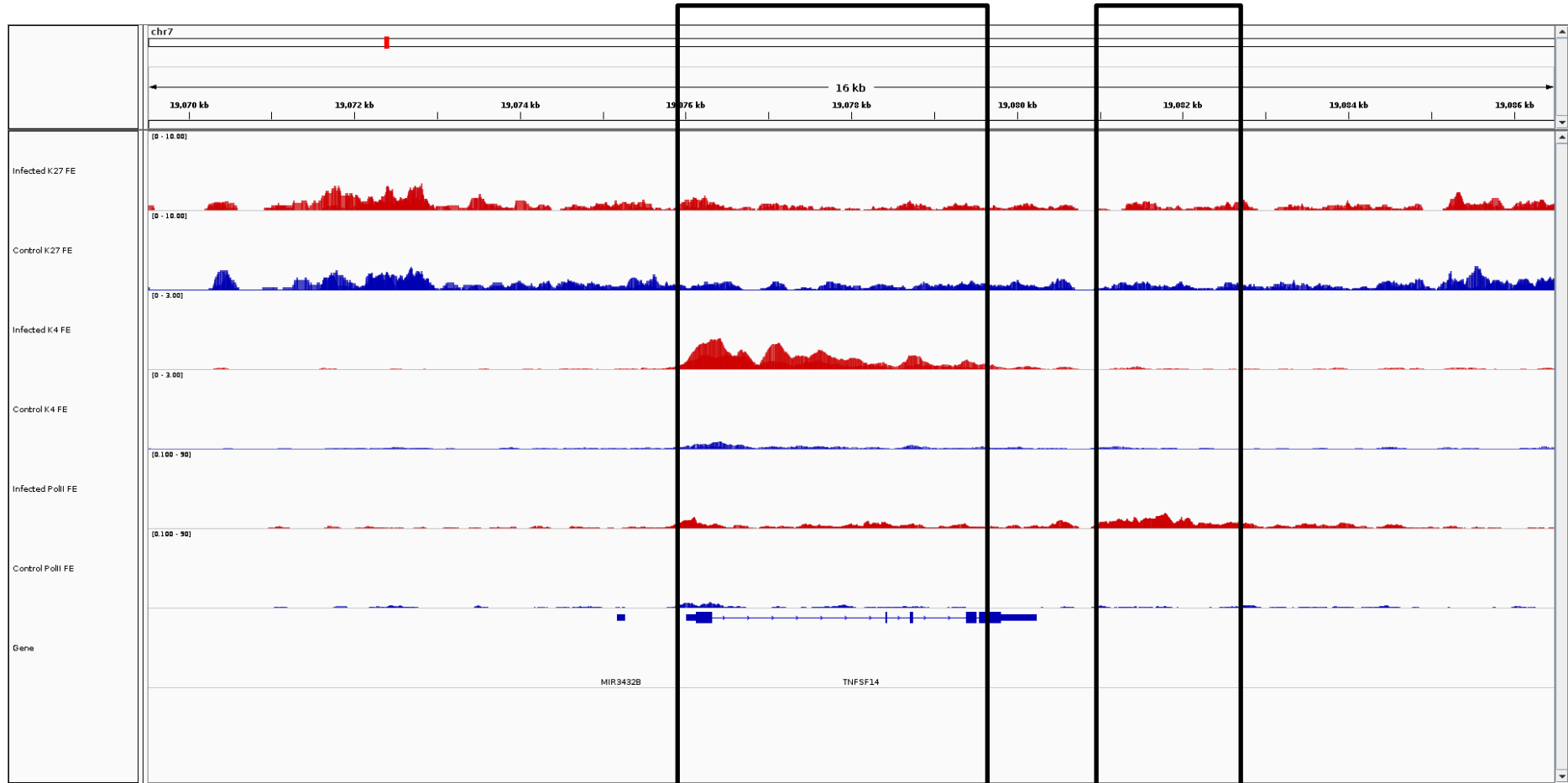
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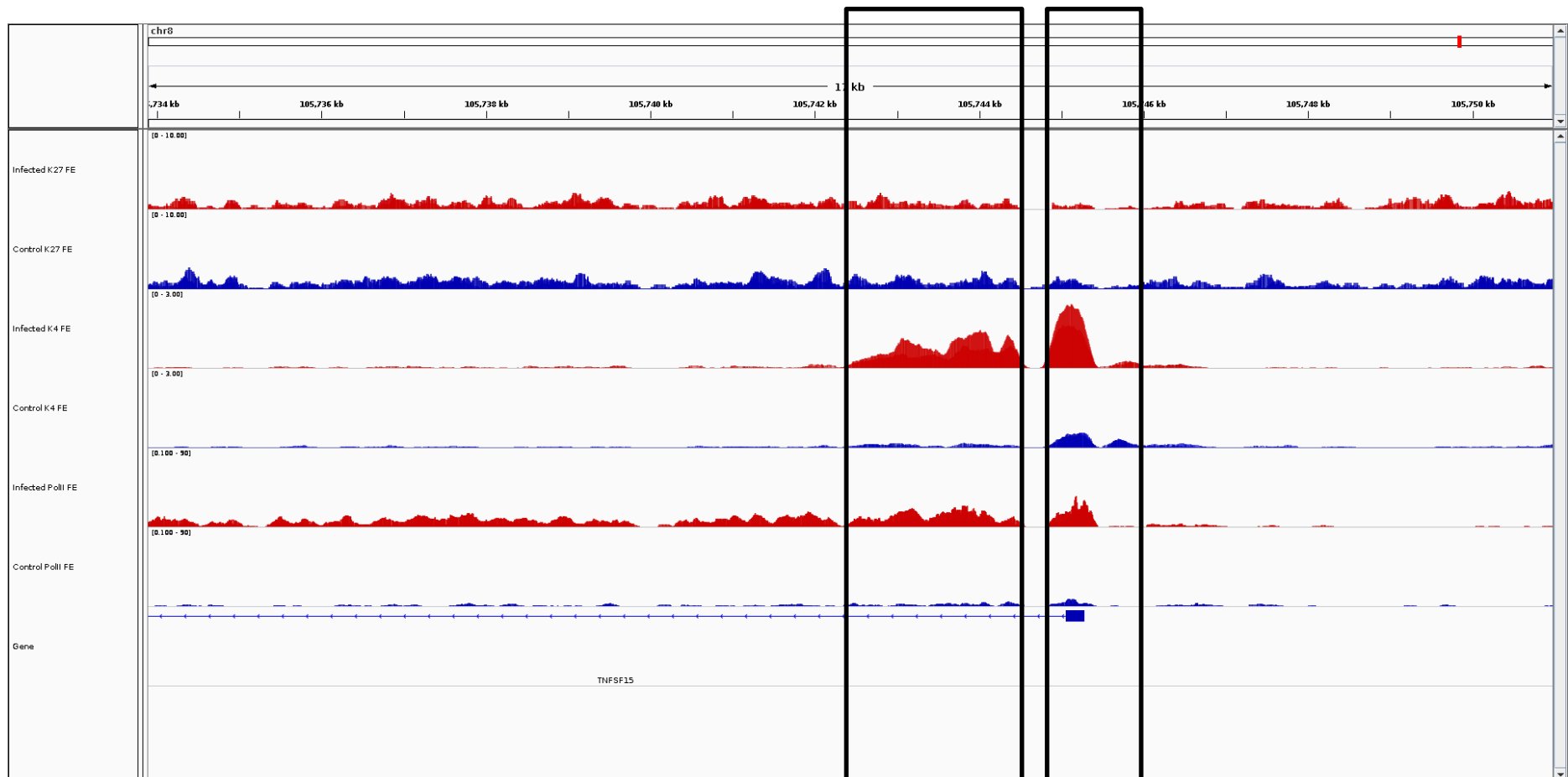
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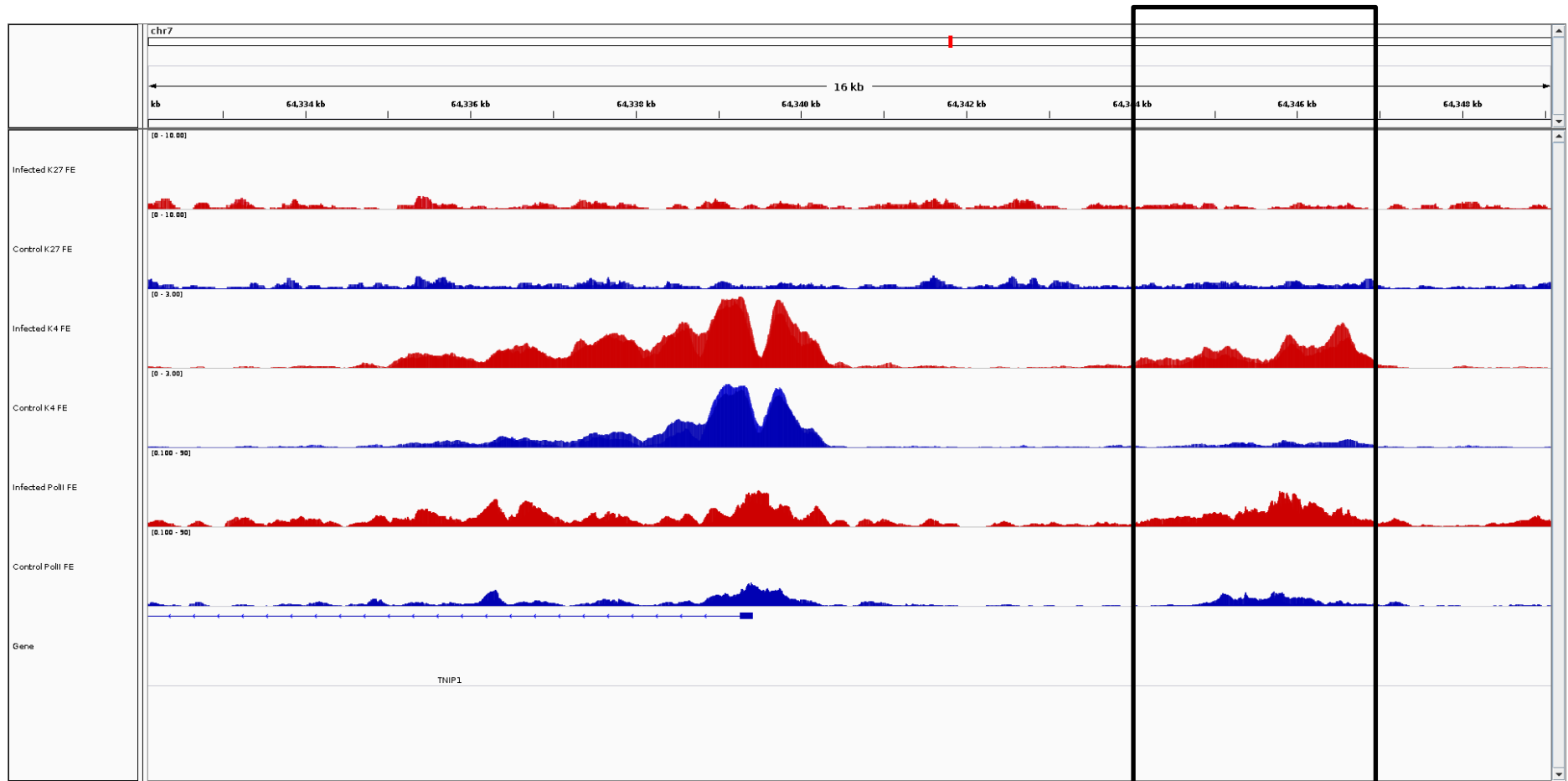
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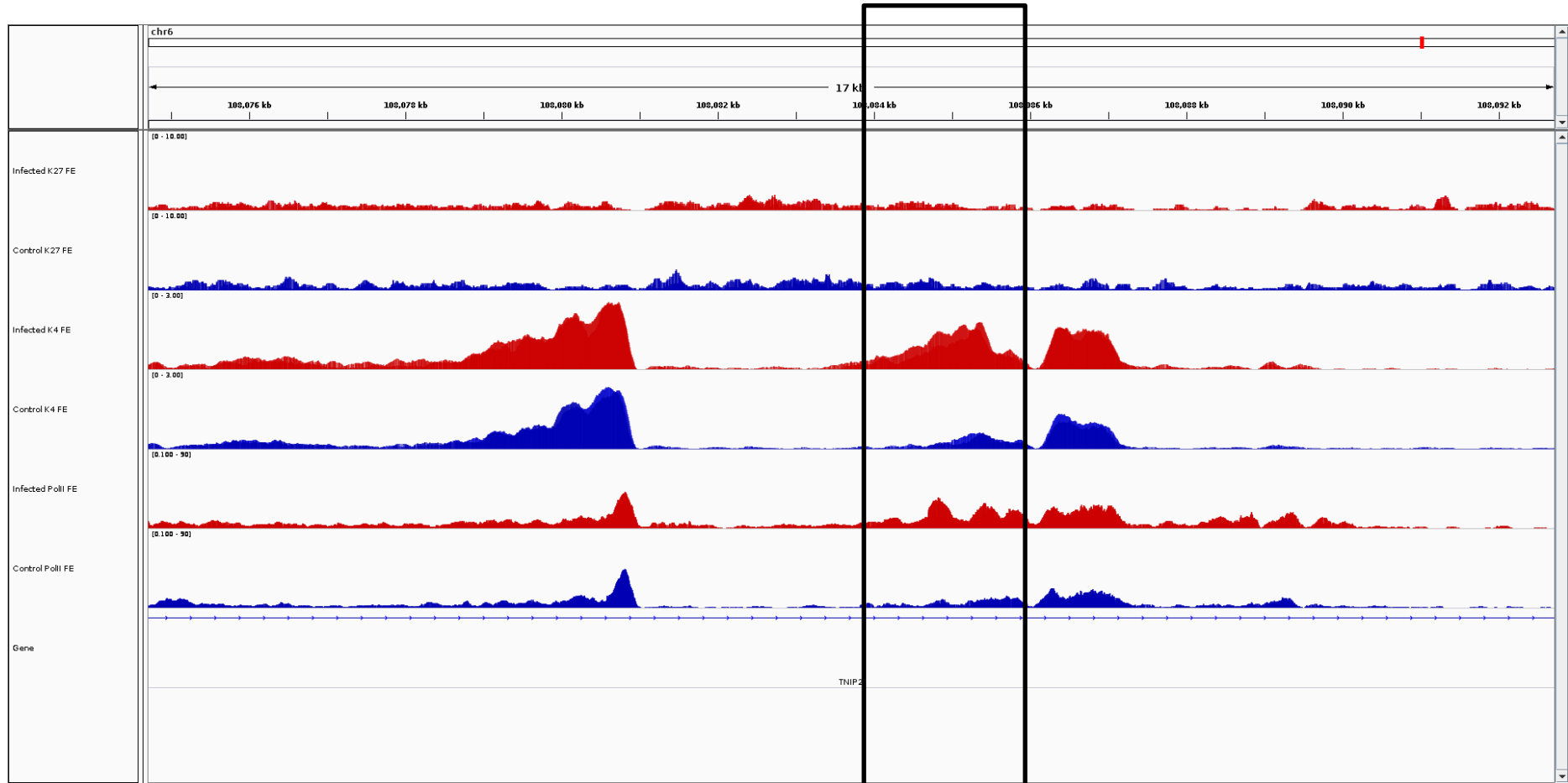
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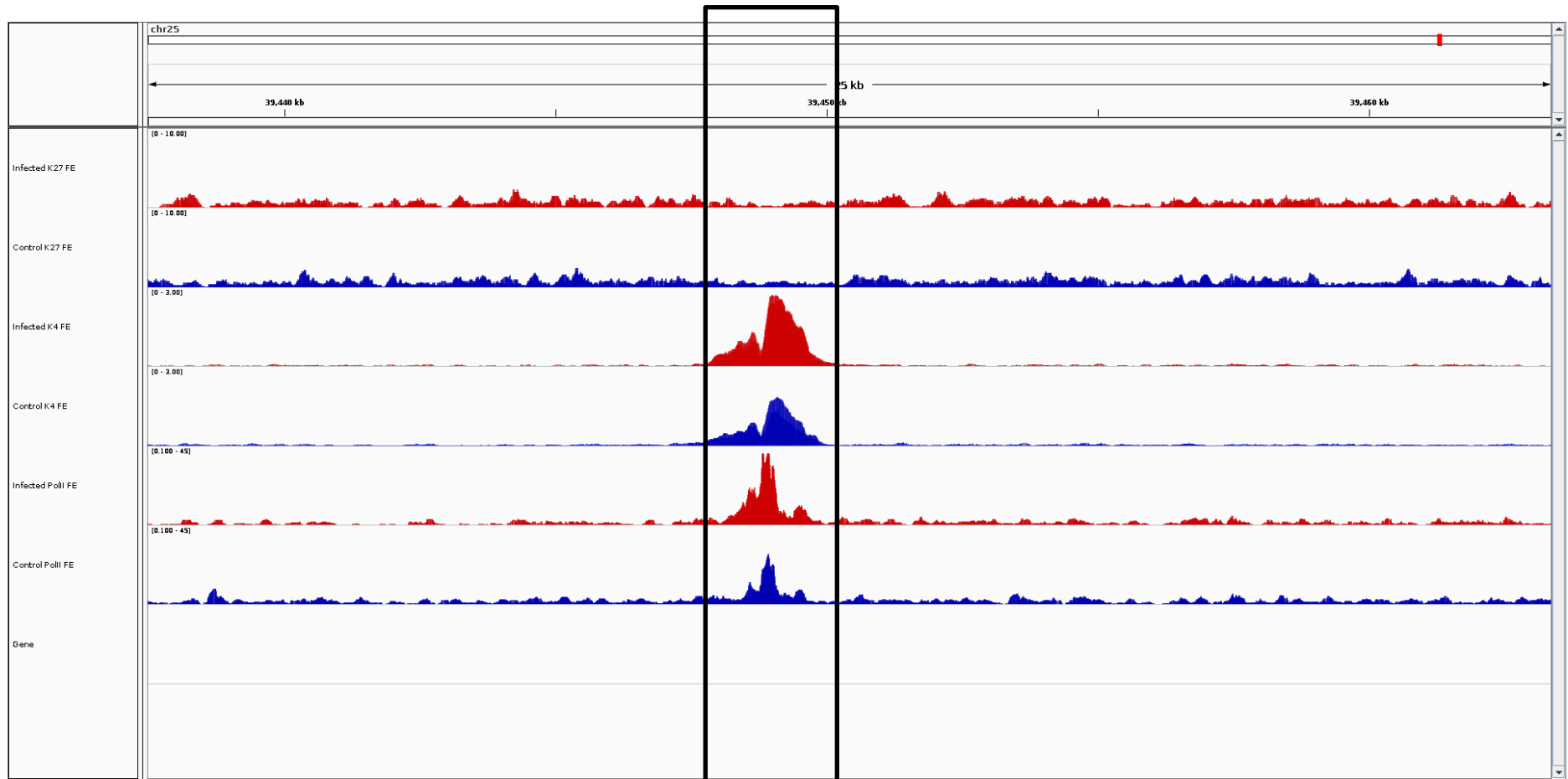
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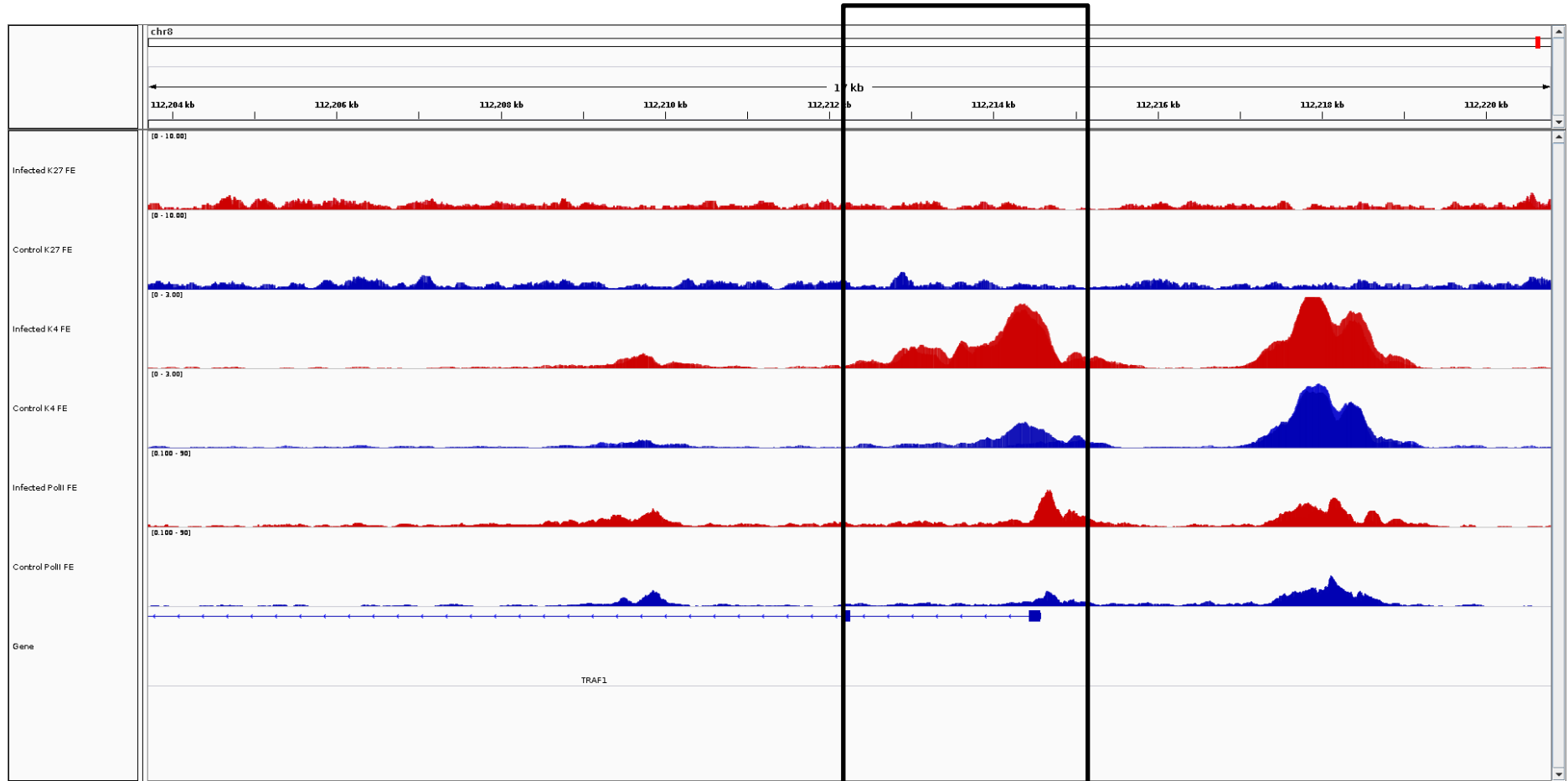
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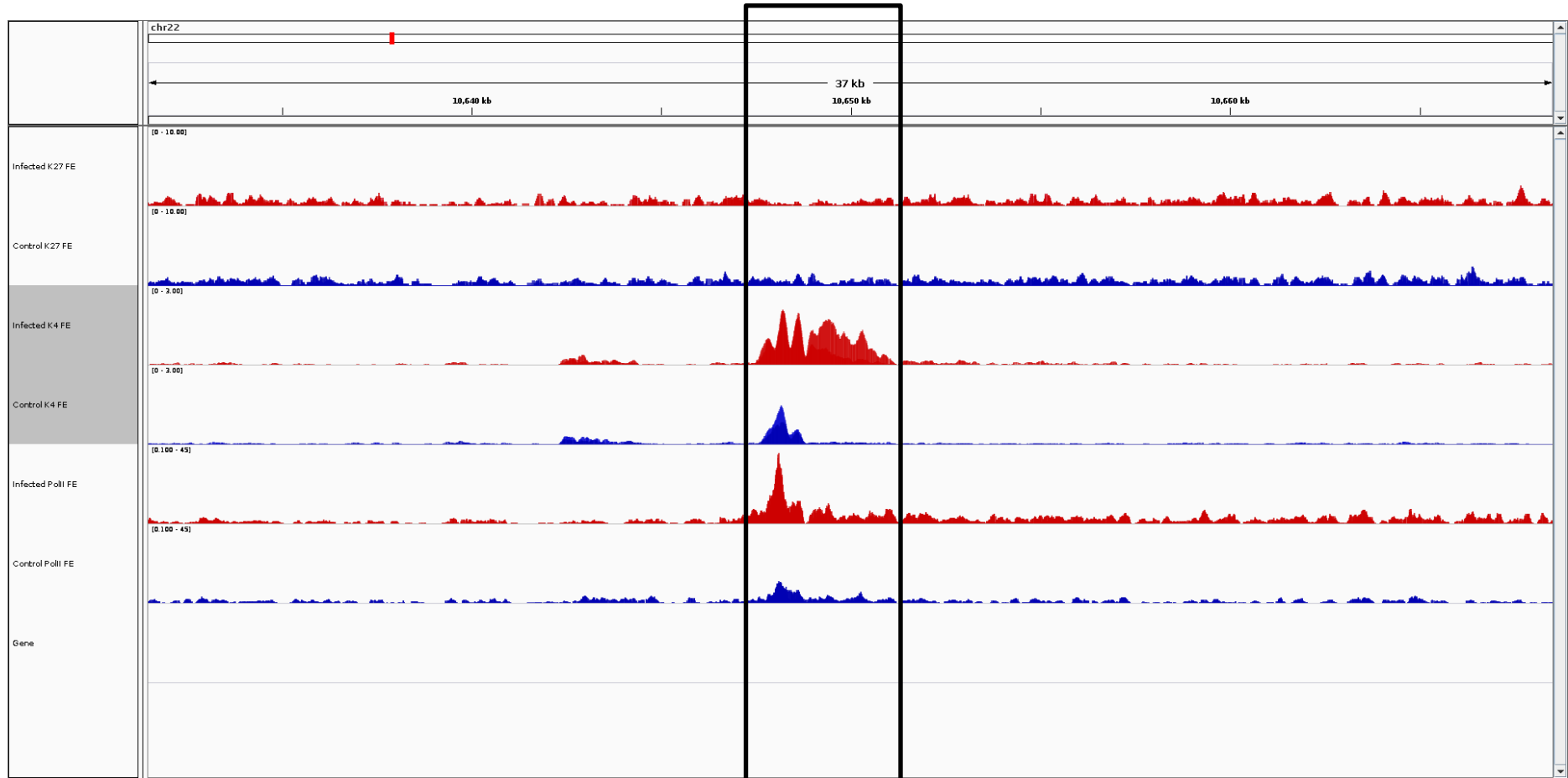
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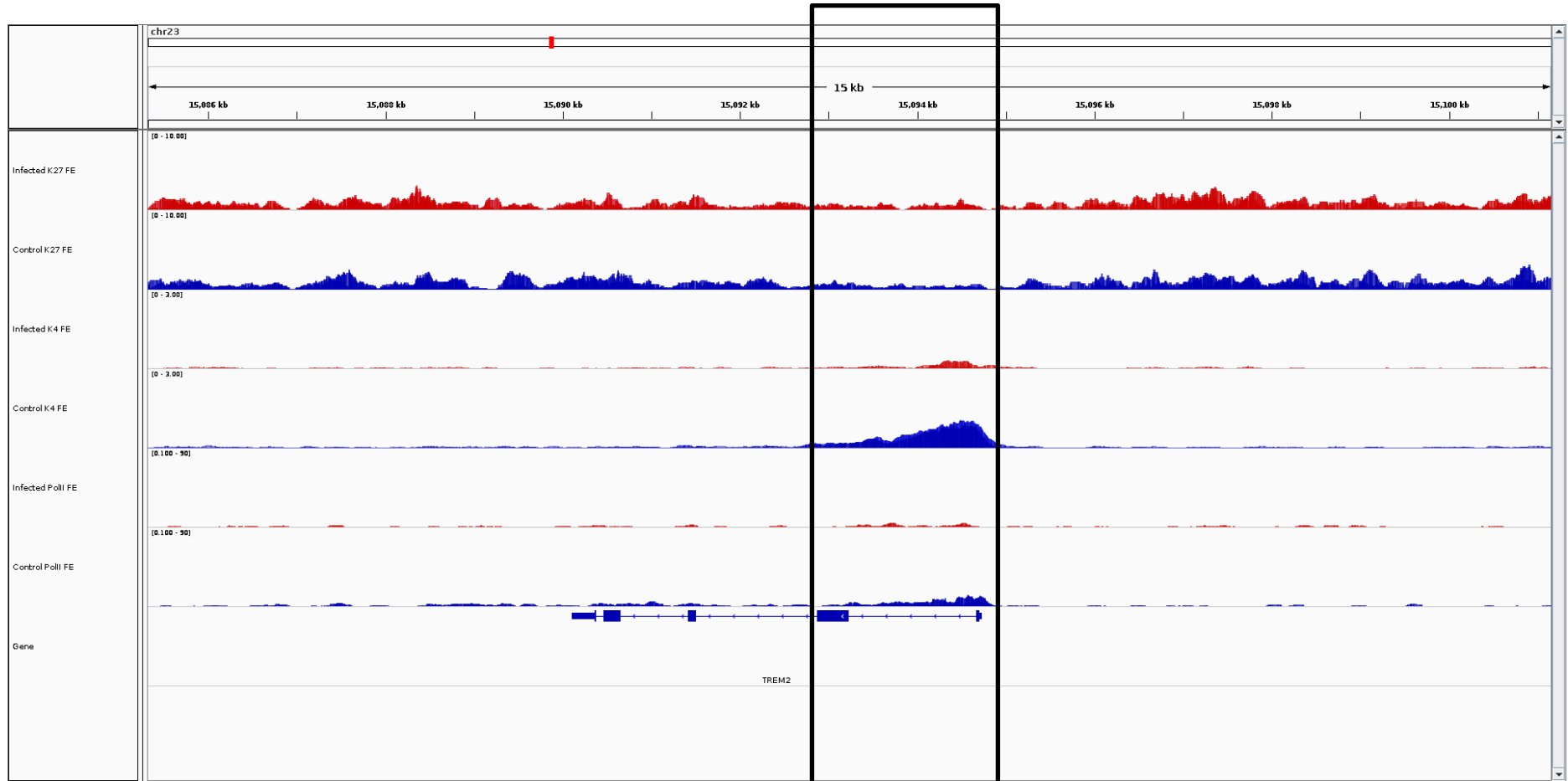
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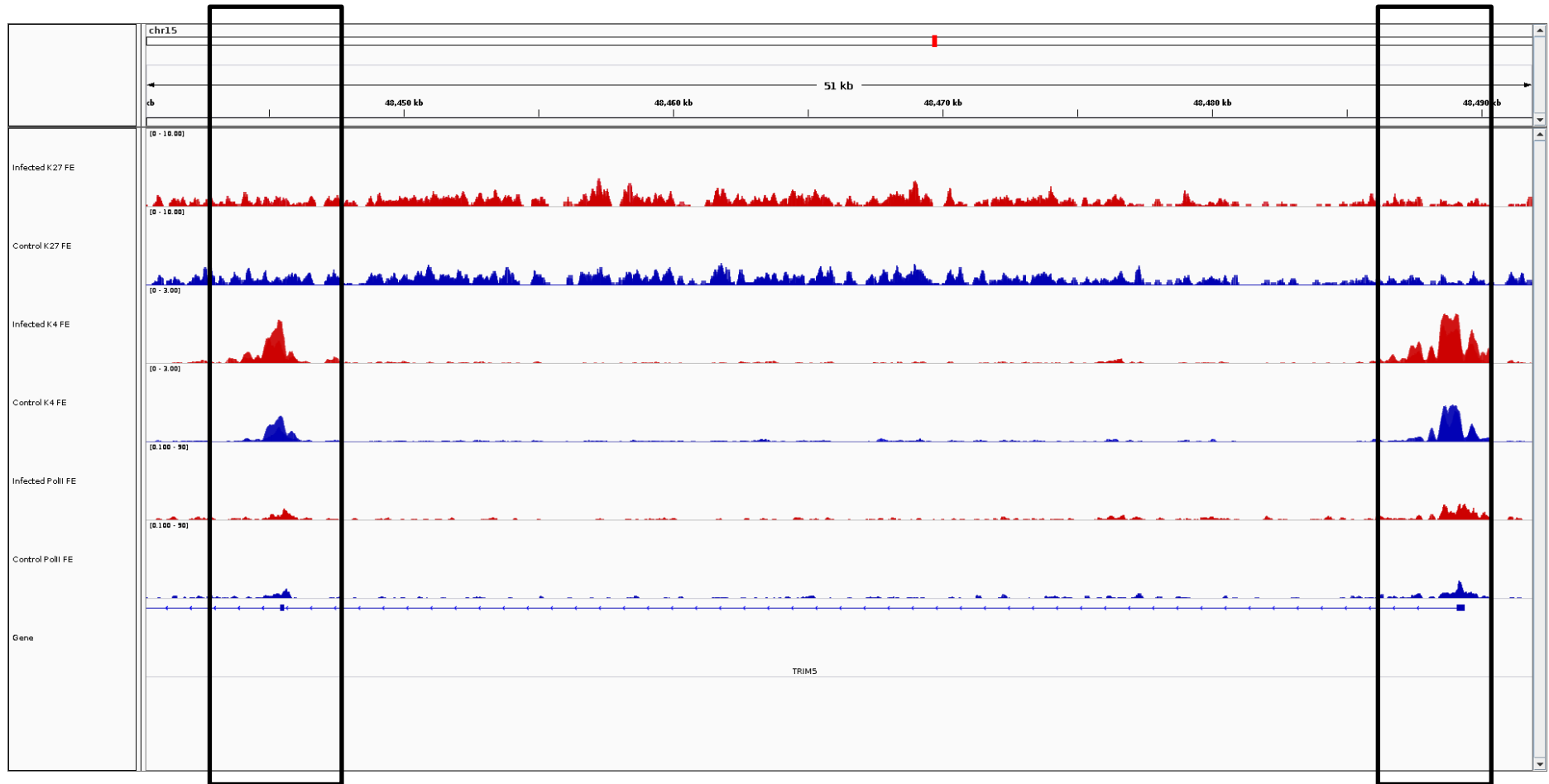
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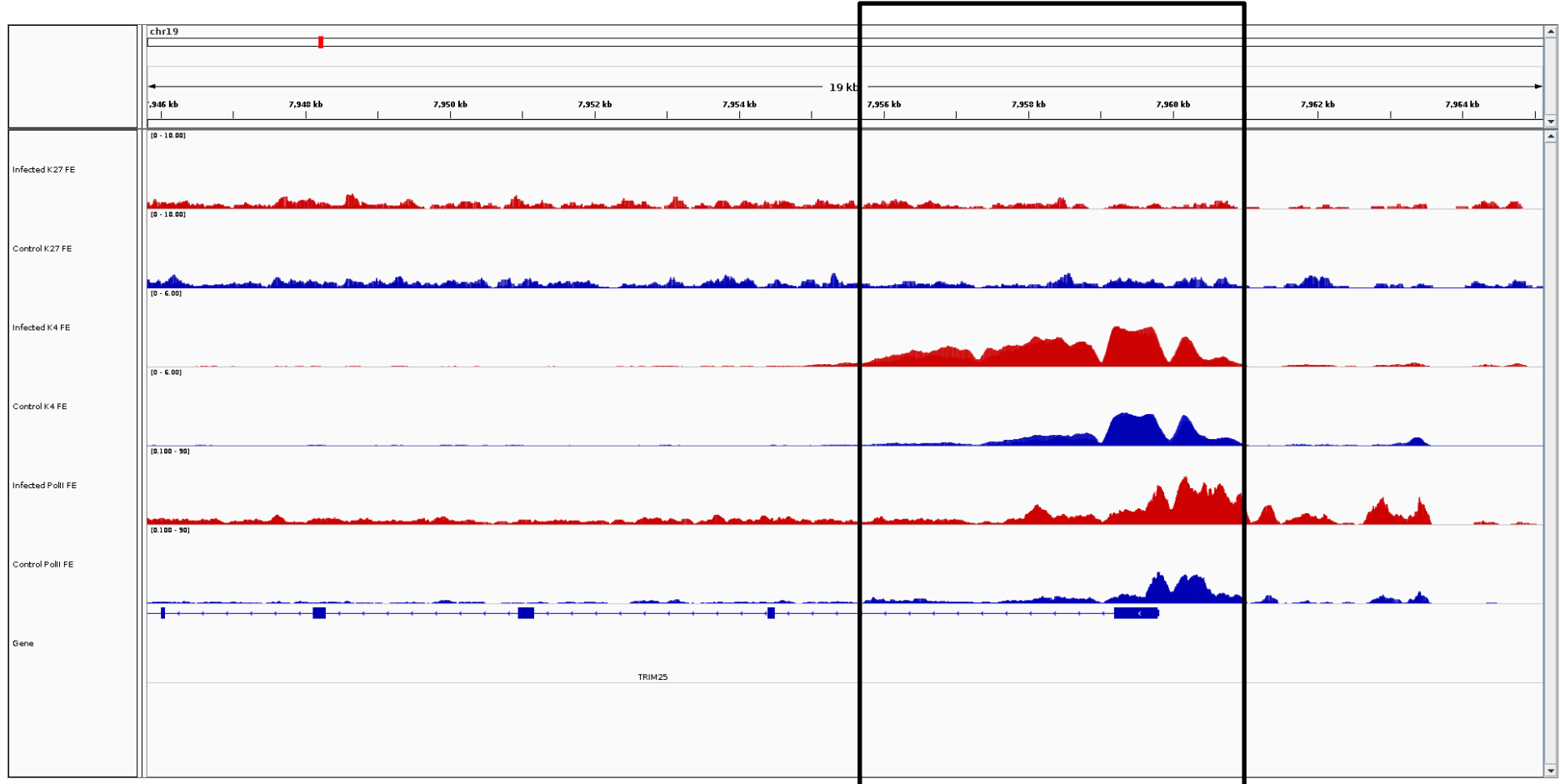
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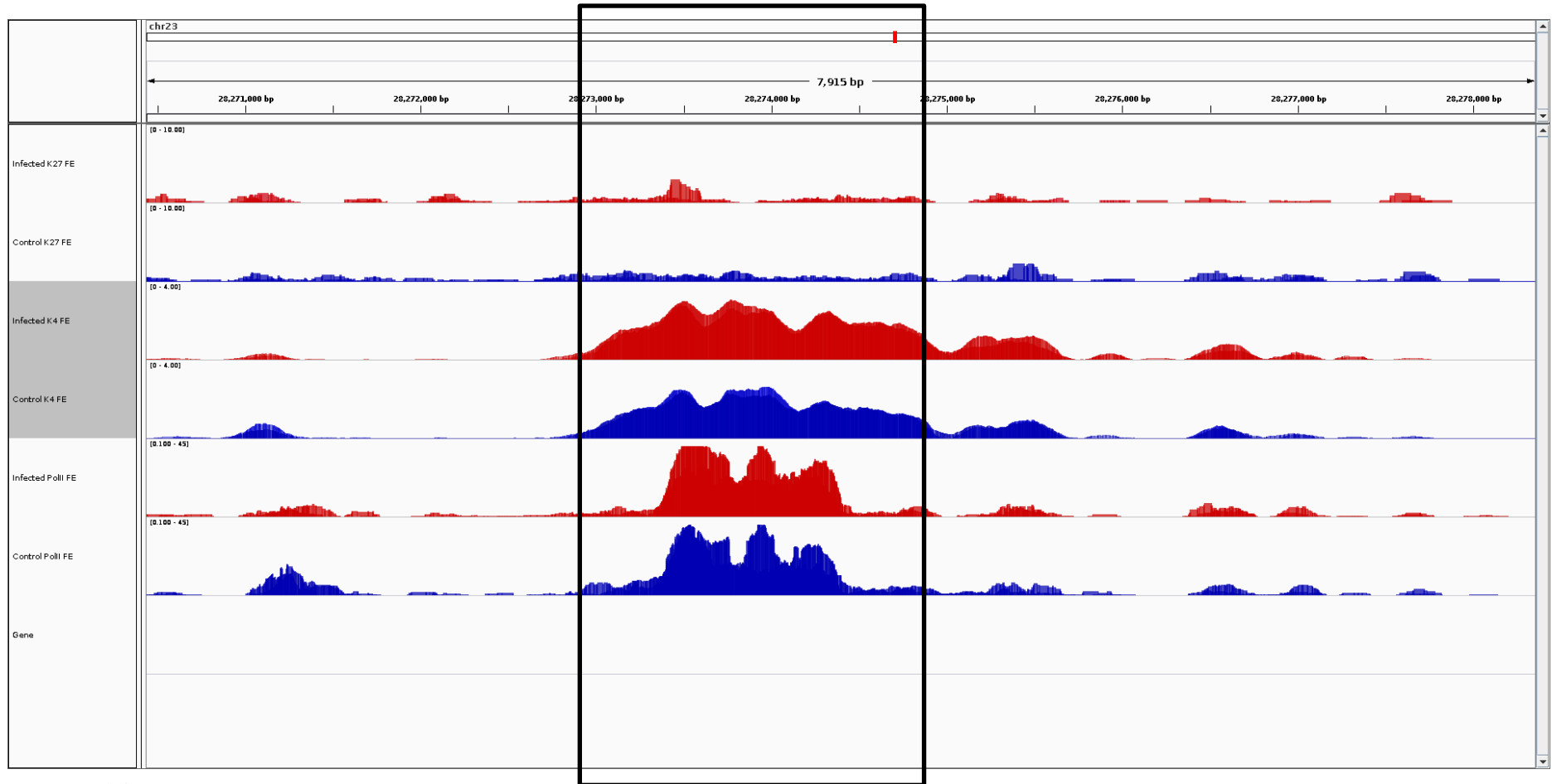
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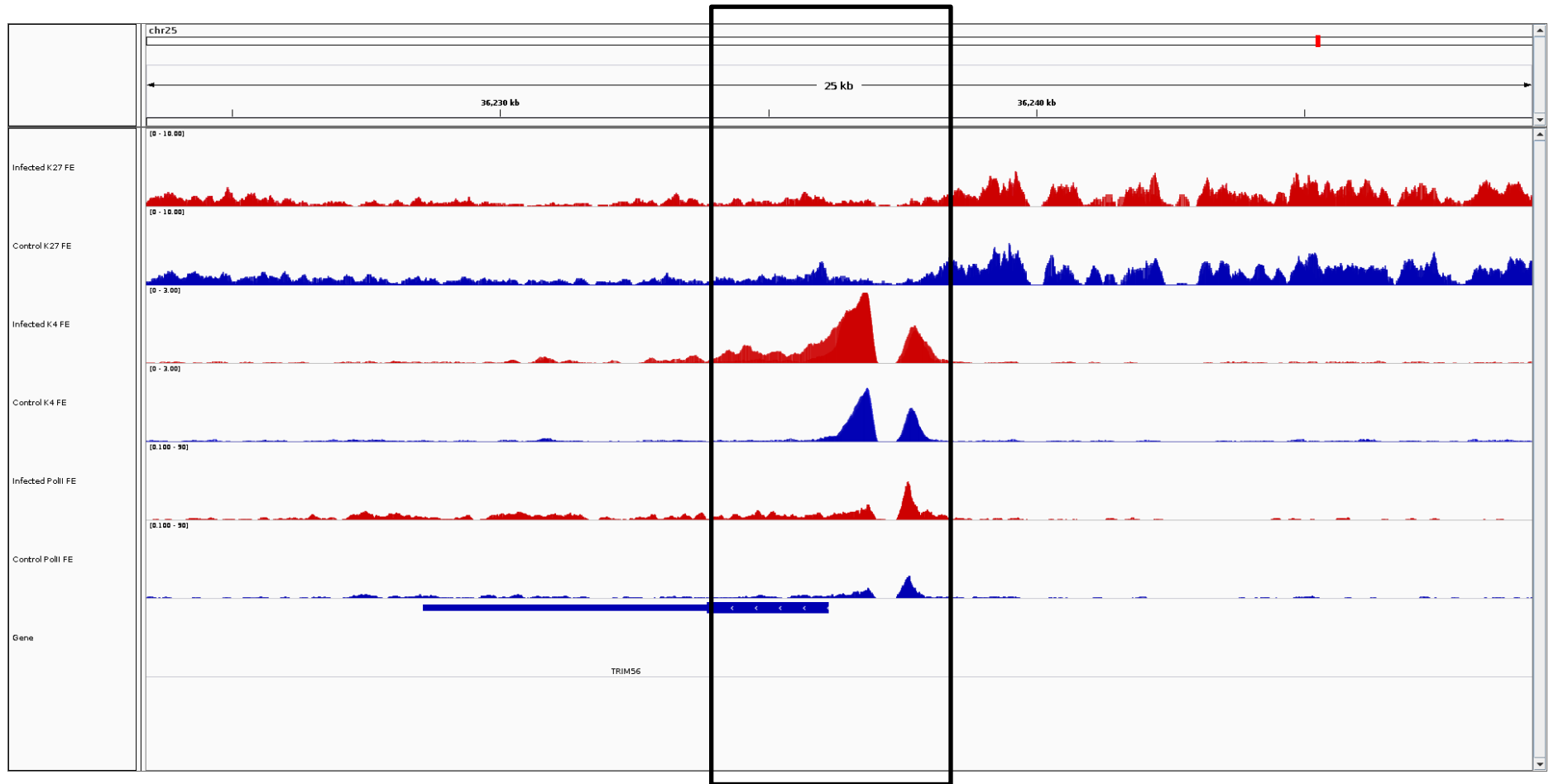
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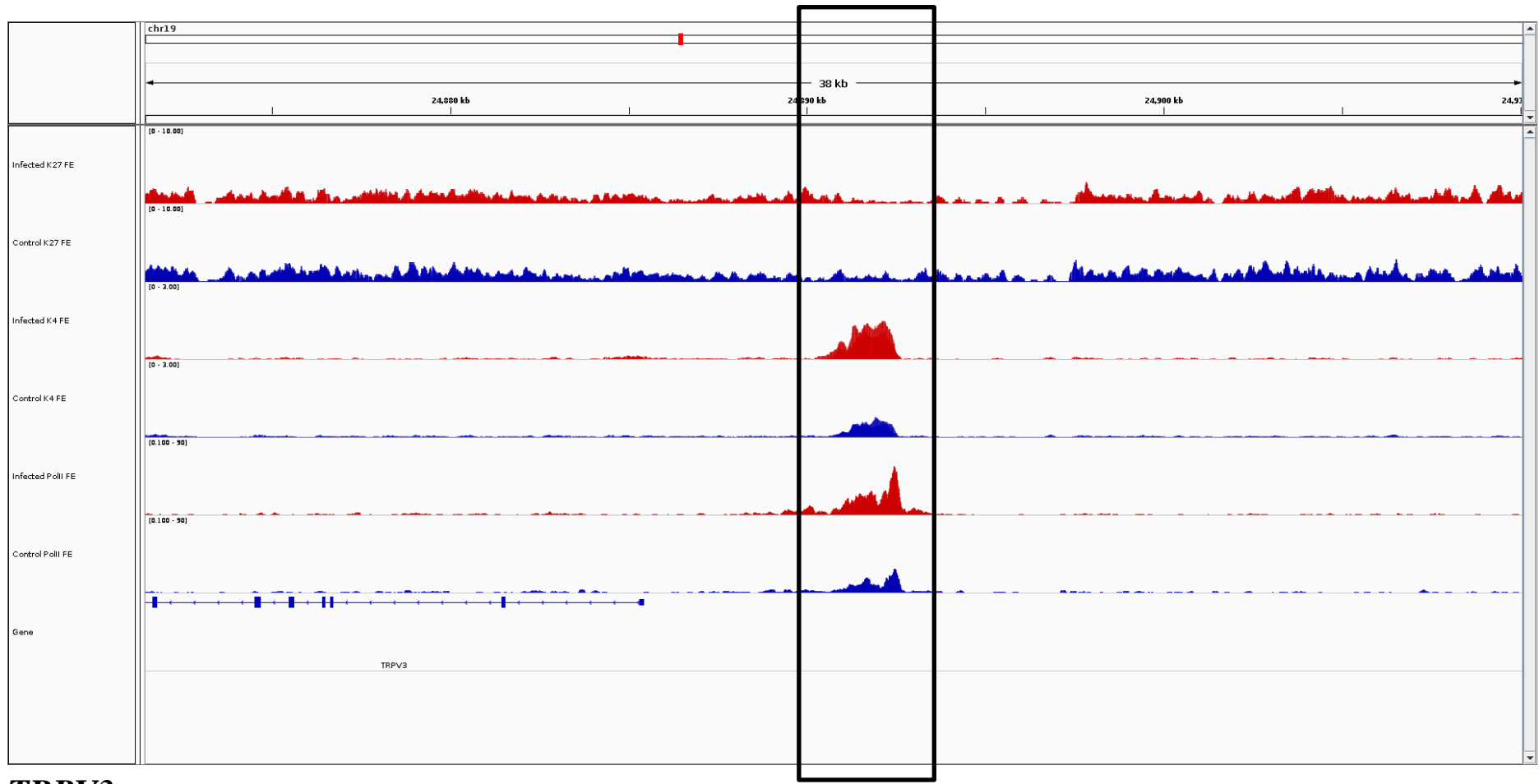
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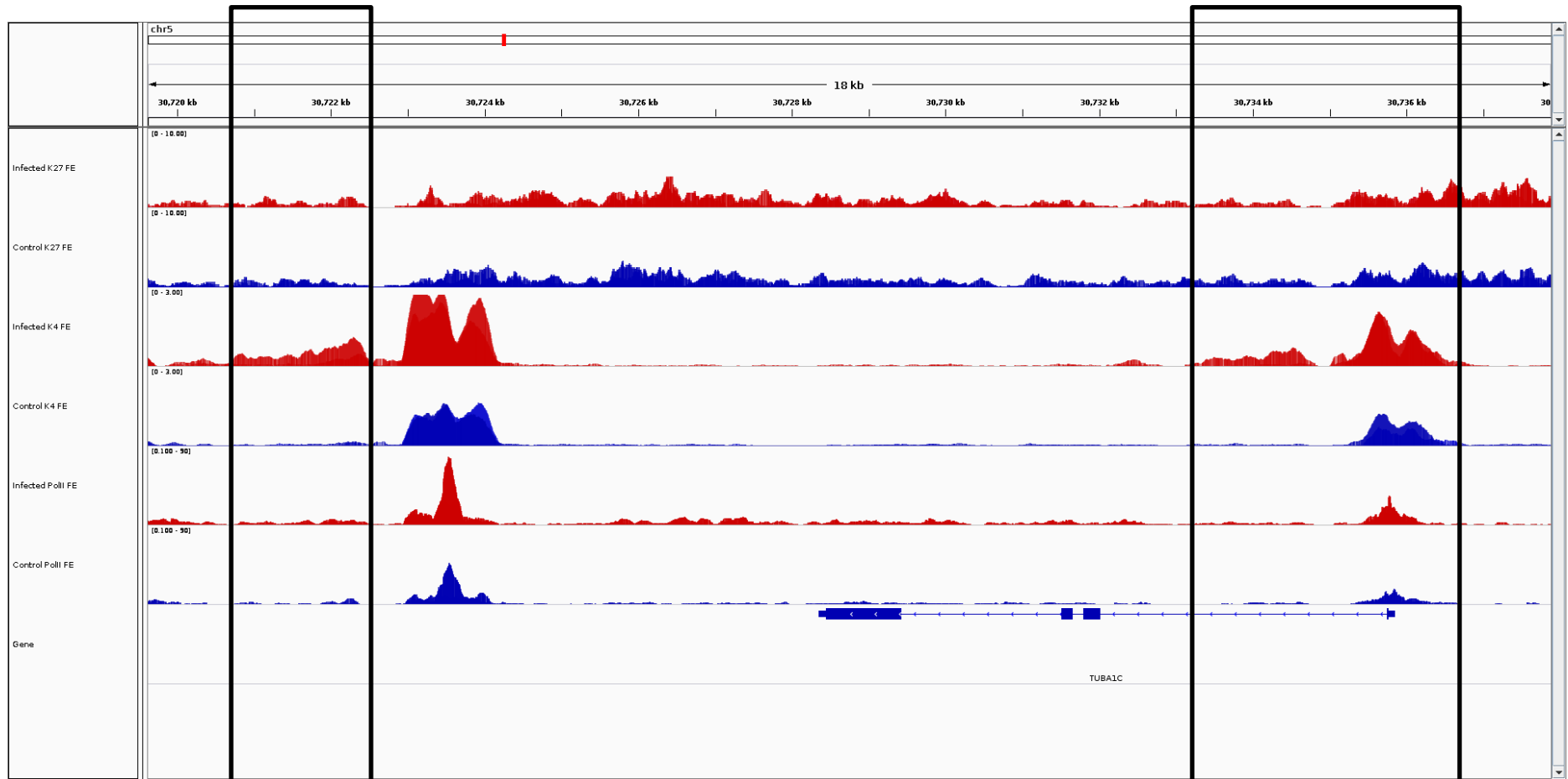
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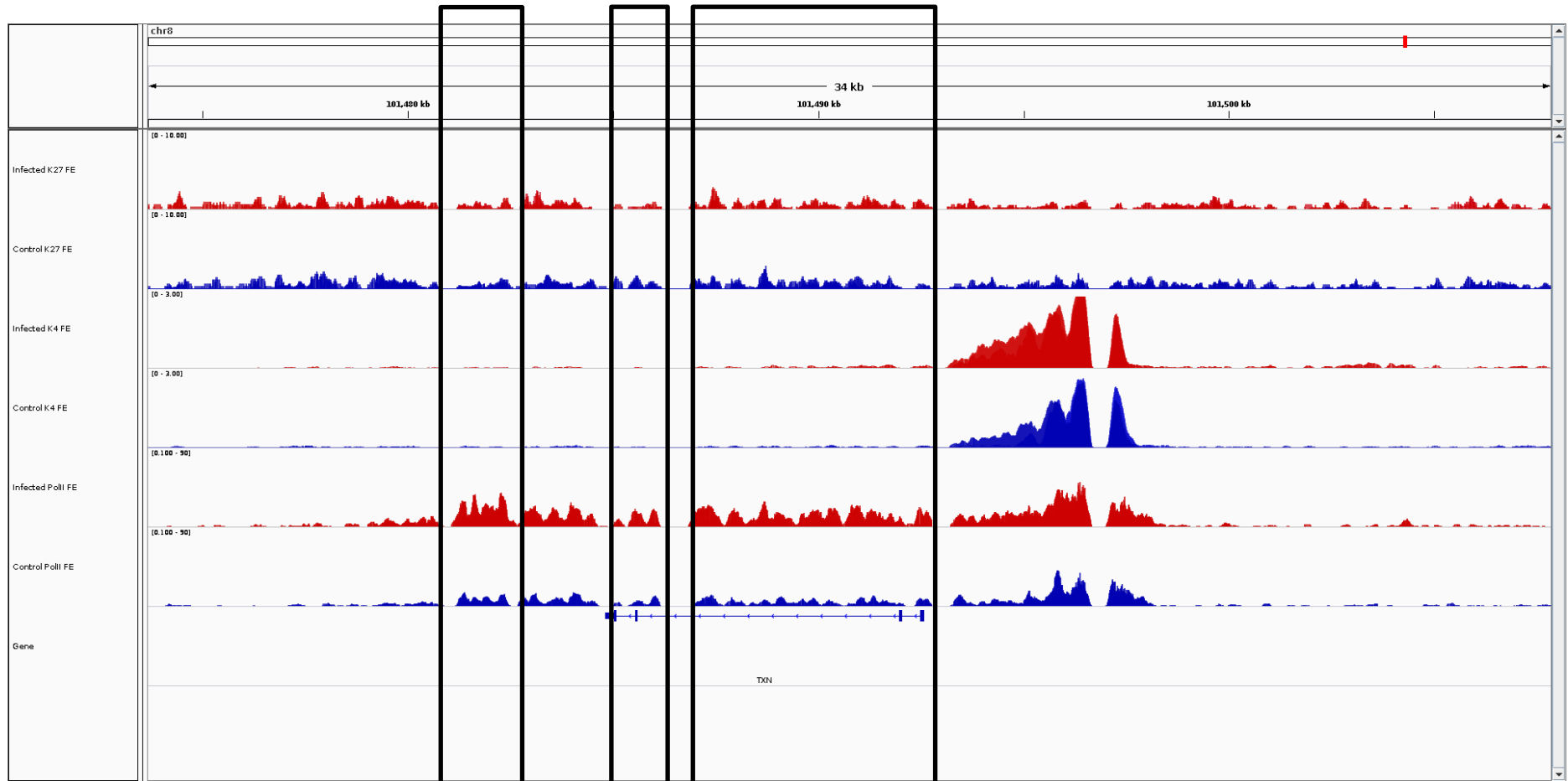
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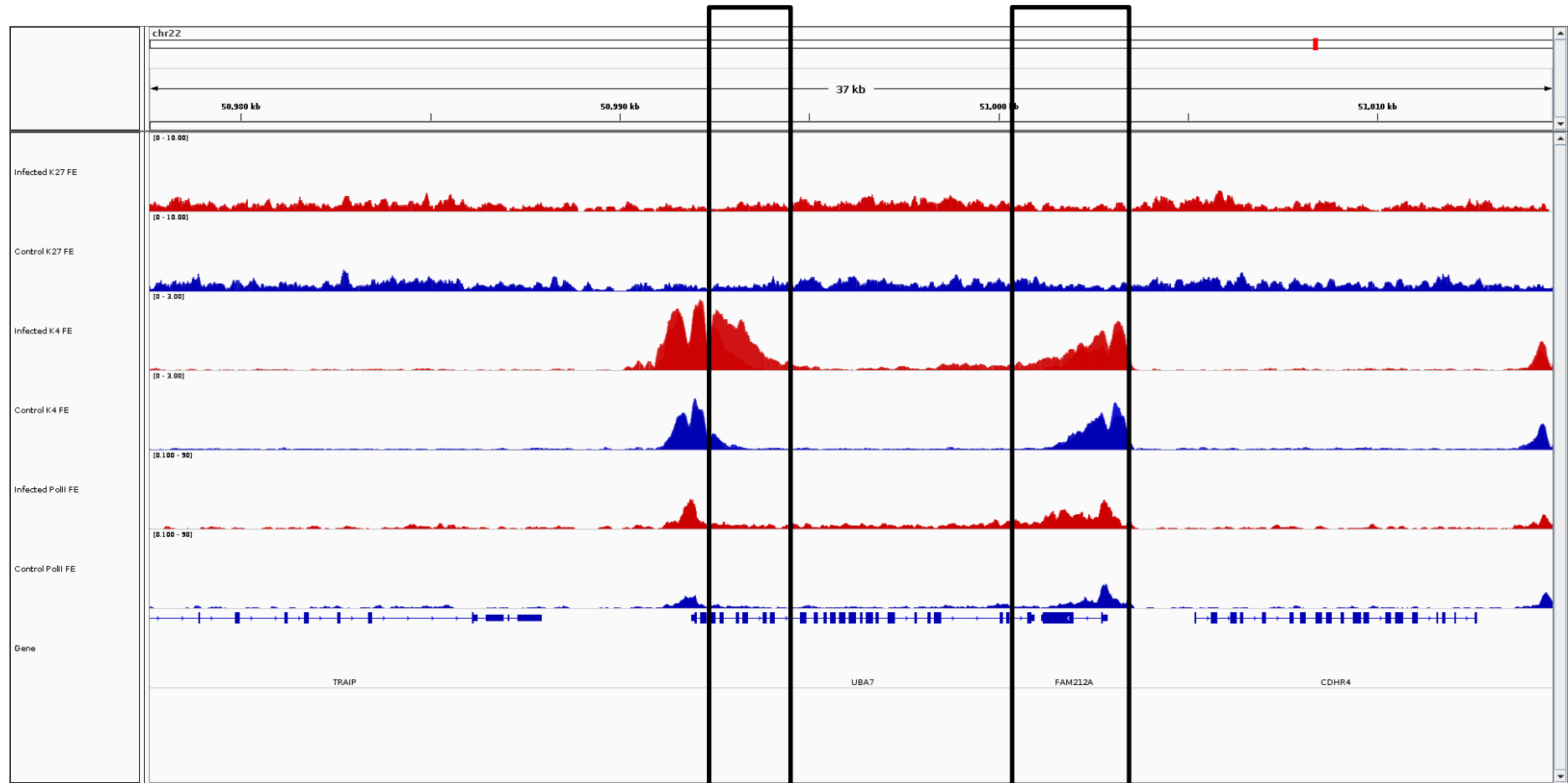
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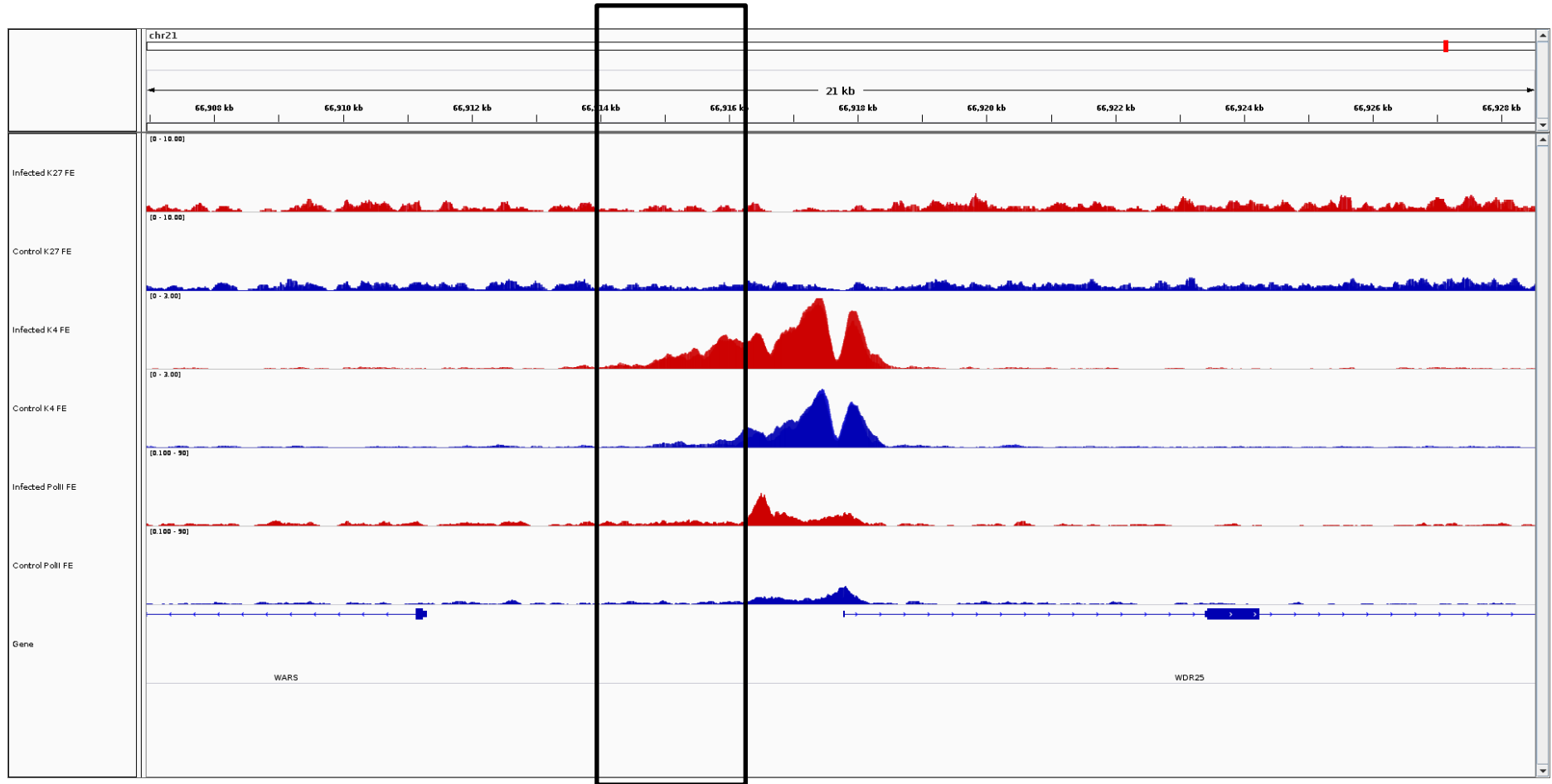
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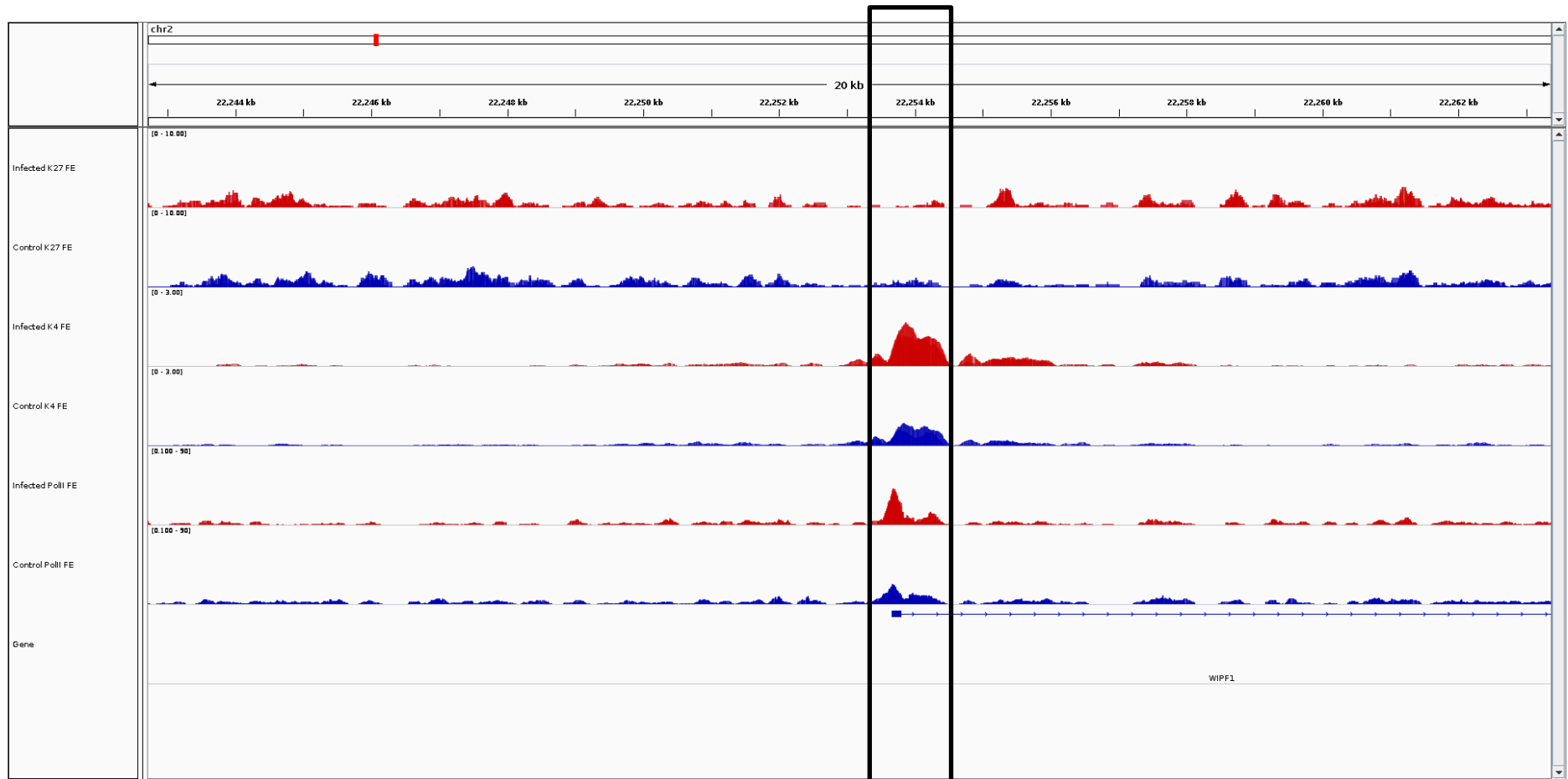
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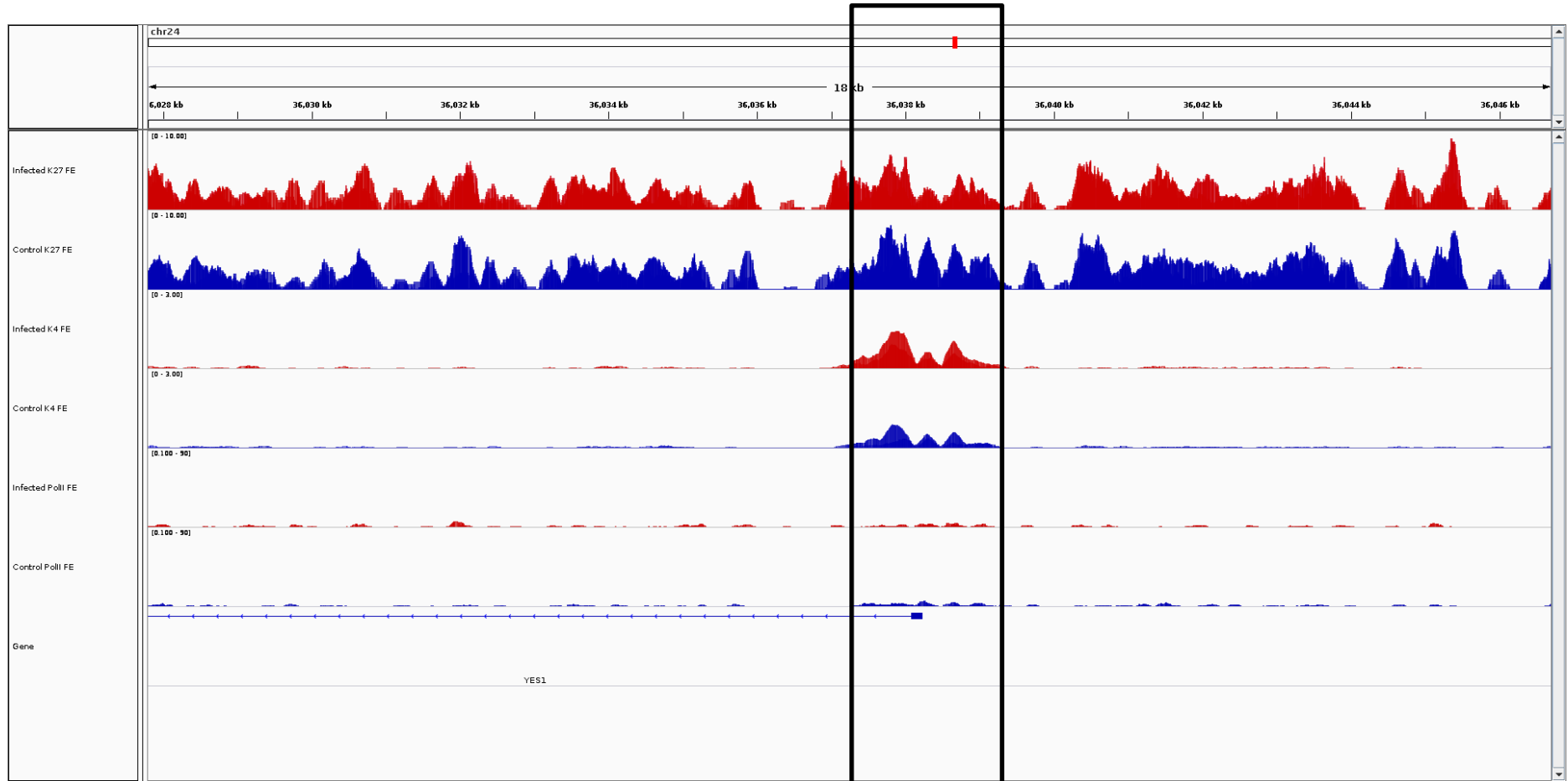
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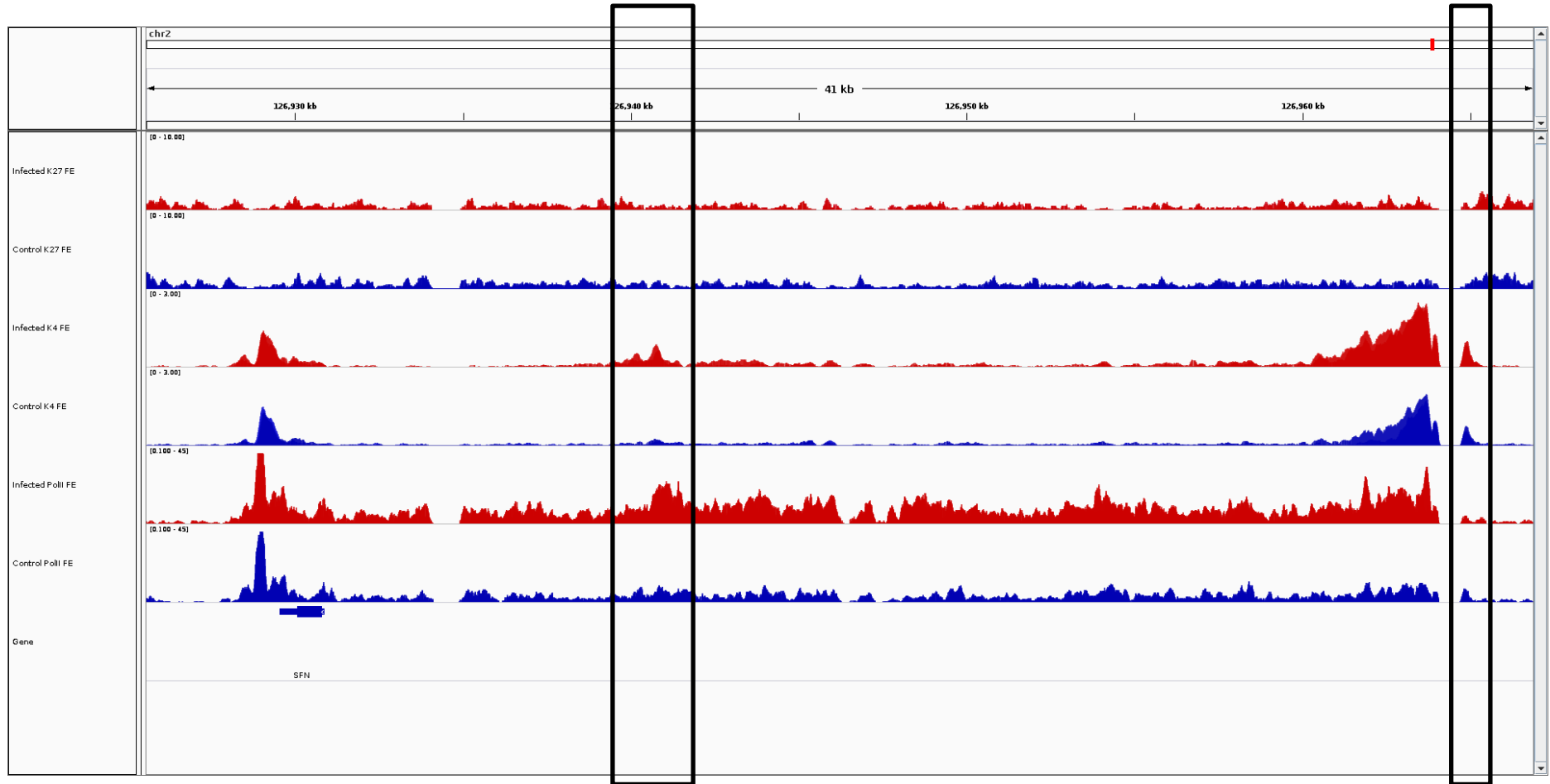
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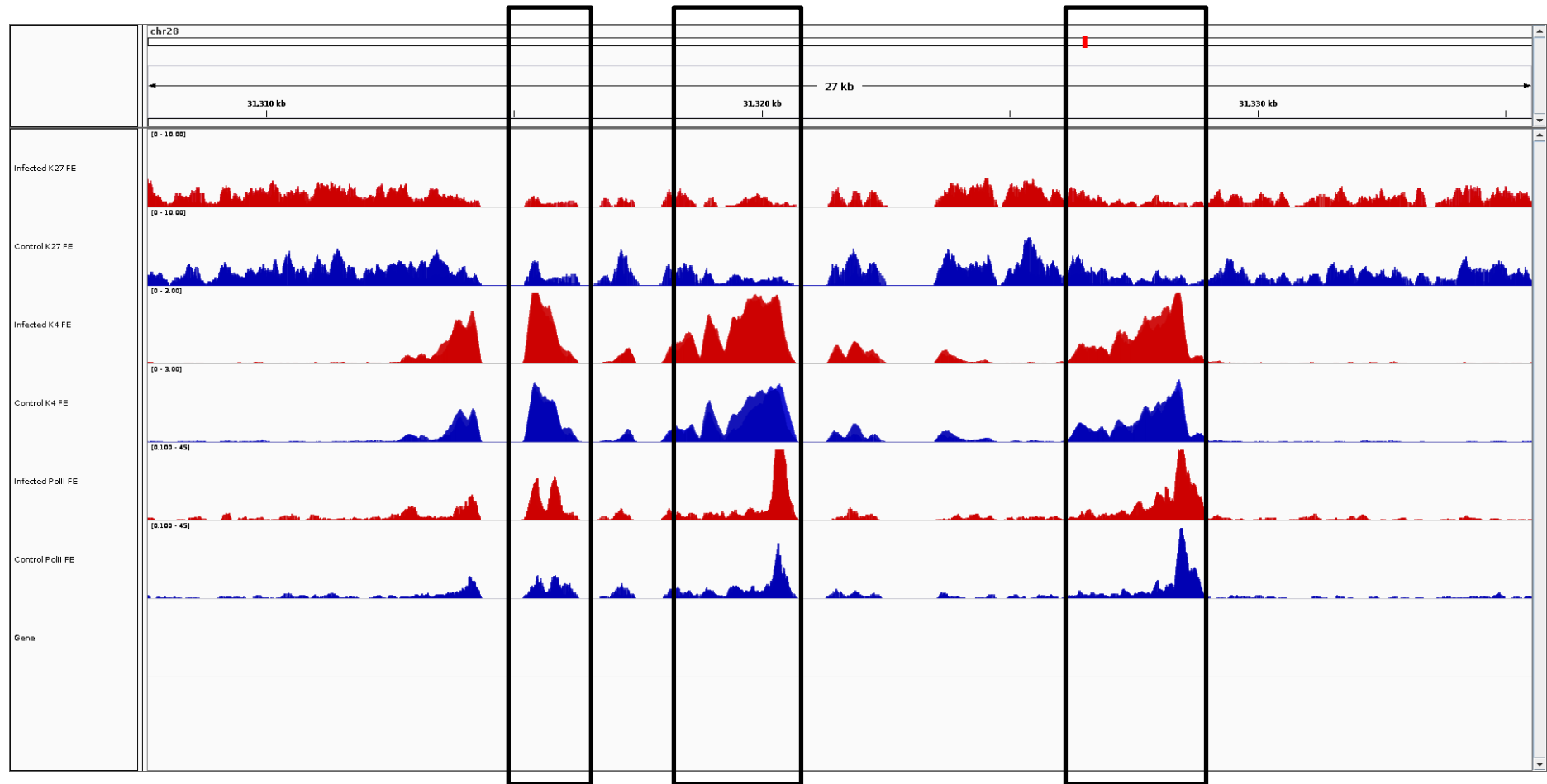
WIPF1



YES1



ZDHHC18-201



ZNF503