REACTOME THE ROLE OF NEF IN HIV1 REPLICATION AND DISE! **Gene Set Null Distribution Heat Map for Genes in Gene Set Benign** Malignant Class AP1G1 Gene Set Null Density CD247 AP2A2 Observed Gene Set ES value FYN $^{\circ}$ AP2A1 PAK2 0.0 DOCK2 AP2S1 Running Enrichment Score (RES) LCK AP1B1 2 CD4 CD8B P(ES) -0.5 AP1M1 Zero crossing at 13352 AP2M1 Peak at 18818 ATP6V1H HCK AP1S1 ARF1 B2M AP2B1 AP1M2 -1.0 PACS1 RAC1 0 CD28 Neg. ES "Malignant" Pos. ES: "Benign" AP1S2 ELMO1 "Malignant" "Benign" GSM721588 GSM721589 GSM721590 GSM721612 GSM721613 GSM721616 GSM721618 GSM721591 GSM721592 GSM721611 GSM721614 GSM721617 GSM72161 5000 10000 15000 20000 25000 -0.6-0.2 0.0 0.6 0.2 0.4 Gene List Index

ES = -0.501 NES = -1.79 Nom. p-val= 0.0119 FWER= 0.646 FDR= 0.465

Number of genes: 25691 (in list), 26 (in gene set)