

Figure 1 displays a plot of the enrichment score (ES) across the gene list index (0 to 18,113). The plot shows a blue line representing the ES, which starts at a baseline, dips, then rises to a peak at index 12,287 (marked by a blue dotted line), before dipping again and rising to a second peak at index 7,862 (marked by a green dotted line). The bottom panel shows the distribution of genes in the list, with a green shaded area representing the 'clus2' cluster and a black shaded area representing the 'NON.clus2' cluster. The x-axis is labeled 'Gene List Index' and 'Number of genes: 18113 (in list), 62 (in gene set)'.

A density plot showing the probability density $P(ES)$ on the y-axis (ranging from 0 to 4) against the ES value on the x-axis (ranging from -0.6 to 0.4). The plot features a red curve representing the 'Gene Set Null Density', which is bimodal with peaks at approximately $ES = -0.25$ and $ES = 0.25$. A vertical black line at $ES = -0.4$ represents the 'Observed Gene Set ES value'. The area under the red curve to the left of this line is shaded in light blue. Text labels indicate 'Neg. ES "NON.clus2"' for the negative region and 'Pos. ES: "clus2"' for the positive region. Below the x-axis, the observed values are summarized: $ES = -0.4$, $NES = -1.51$, $Nom. p\text{-val} = 0.03$, $FWER = 0.985$, and $FDR = 1$.

clus2 **NON.clus2**

Class

NDJUV3
ATP5J
CD82
KLRL3
EBAG9
CTSD
SET
MYC
ANP3A
UBE2M
MPG
CEBPB
TRIM59
PHB2
NEDD8
SAFB
NCOA1
WEE1
STAT3A
DDX54
AP1B1
ABCA3
SRA1
BRCA1
SOD1
SMA34
NCOR1
NR0B2
COL1A1
PGR
NCOR2
PCNA
C3
HDAC3
UBA3
XBP1
HDAC1
LMO4
MTA1
DDX17
NCOA7
GREB1
EP300
JUN
CALCOCO1
NCOA2
PRDM15
HSF2
CHUK
CCND1
AXIN2
PDIA2
APBB1
NR1P1
NCOA3
NR0B1
LCOR
DSCAM
POLA4F1
ESR1
TF1
ESR2

TCGA_3X_AA1A_01
TCGA_W5_AA2W_01
TCGA_W5_AA36_01
TCGA_W6_AA18_01
TCGA_3X_AA1V_01
TCGA_3X_AA1B_01
TCGA_3X_AA1C_01
TCGA_3X_AA1E_01
TCGA_4G_AA2Q_01
TCGA_4G_AA2T_01
TCGA_W5_AA2G_01
TCGA_W5_AA2H_01
TCGA_W5_AA2I_01
TCGA_W5_AA2O_01
TCGA_W5_AA2Q_01
TCGA_W5_AA2R_01
TCGA_W5_AA2U_01
TCGA_W5_AA2X_01
TCGA_W5_AA2Z_01
TCGA_W5_AA30_01
TCGA_W5_AA31_01
TCGA_W5_AA33_01
TCGA_W5_AA34_01
TCGA_W5_AA38_01
TCGA_W5_AA39_01
TCGA_WD_A7RX_01
TCGA_YR_A95A_01
TCGA_ZD_A813_01
TCGA_ZH_A8Y1_01
TCGA_ZH_A8Y2_01
TCGA_ZH_A8Y4_01
TCGA_ZH_A8Y5_01
TCGA_ZH_A8Y6_01
TCGA_ZH_A8Y8_01
TCGA_ZU_A8S4_01