

Figure 1 displays a multi-panel plot showing gene set enrichment analysis results. The x-axis represents the Gene List Index (0 to 18193) and the Number of genes (18193 in list, 91 in gene set). The y-axis represents the Enrichment Score (ES).

The top panel shows the ES curve (blue line) across the gene list index. The curve starts at a baseline, dips slightly, then rises to a peak at index 15176, and finally drops sharply. A vertical green dashed line marks the "Zero crossing at 10321", and a vertical blue dashed line marks the "Peak at 15176".

The middle panel shows a barcode of vertical lines representing the presence of genes in the set.

The bottom panel shows a green area plot representing the distribution of the ES, with a peak at the zero crossing point. The area is labeled "clus4" on the left and "NON.clus4" on the right.

The figure is a density plot showing the probability density function (PDF) of ES values. The x-axis is labeled 'ES' and ranges from -0.6 to 0.6. The y-axis is labeled 'P(ES)' and ranges from 0.0 to 3.0. A red curve represents the 'Gene Set Null Density', which is bimodal with peaks at approximately -0.2 and 0.2. A vertical black line represents the 'Observed Gene Set ES value' at approximately -0.446. The area under the red curve to the left of this line is shaded in light blue. Text labels on the x-axis indicate 'Neg. ES "NON.clus4"' for negative values and 'Pos. ES: "clus4"' for positive values. At the bottom, summary statistics are provided: ES = -0.446, NES = -1.7, Nom. p-val = 0.0243, FWER = 0.79, and FDR = 0.135.

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Heatmap visualization showing gene expression patterns across 100 samples. The samples are grouped into two main clusters: **clus4** (left) and **NON.clus4** (right). The genes are listed on the y-axis, with some grouped into functional categories like **MAPK**, **RPS**, **TMEM189-USE**, and **LYR**. The color scale ranges from blue (low expression) to red (high expression).

**Gene List (Y-axis):**

- Class
- PEL1
- MAPK10
- CDK1
- MAPK14
- MAPK11
- PRK
- MAPK7
- MAPK7
- DUSP7
- ELK1
- MAP2K7
- ACE
- RPS8KAS
- PPP2R1A
- APP
- PPP2R5D
- HMGB1
- MEF2C
- CDK1
- MAP2K2
- TAF
- UBA52
- PPP2R7A
- PPP2R2B
- IRAK4
- MAP2K4
- PEL1
- IKKKG
- TAB2
- DUSP6
- IRF2
- MAPKAPK2
- TIRAP
- RPS8KAP
- UBE2N
- IRF8
- ATP1
- MAPK1
- ECST
- MAPK9
- MAPK1
- MAPK2
- SGHR
- SGHR
- RIPK1
- JUN
- NFKB1B
- RELA
- DUSP4
- PPP2R1B
- MEF2A
- PPP2CA
- TBK1
- MAPK9
- CHUK
- ATF2
- IRAK1
- IRAK2
- IRAK3
- NFKB1A
- TRAF6
- TICAM1
- MAPK1
- MYD88
- MAPKAPK1
- MAPKAPK1
- TRAF3
- RPS8KAS
- NOX1
- NOX2
- IKKKG
- ICAM1
- NFKB2
- RPS8KAS
- RIPK2
- TRAF4
- NOX2
- CD14
- IRAK2
- STIM1L2
- IRF7
- IRAK1
- IRAK1
- TLR2
- SARM1
- LYR6
- LYR6
- TLR1

**Sample Groups (X-axis):**

- clus4** (Left 50 samples)
- NON.clus4** (Right 50 samples)