

Figure 1: A plot showing the distribution of gene lists across different clusters. The x-axis is 'Gene List Index' (0 to 18170) and the y-axis is 'Number of genes' (0 to 18170). A red line shows the distribution of gene lists across clusters, peaking at 3298. A green line indicates the zero crossing at 11024. A green shaded area represents the distribution of gene lists across clusters, with a peak at 3298. The plot is divided into two regions: 'clus1' (left) and 'NON.clus1' (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 to 4. A red curve represents the 'Gene Set Null Density', which is a bimodal distribution with peaks at approximately -0.3 and 0.3. A vertical black line represents the 'Observed Gene Set ES value' at approximately 0.469. The area under the red curve to the right of the observed value is shaded in light blue. Text labels on the x-axis indicate 'Neg. ES "NON.clus1"' for negative values and 'Pos. ES: "clus1"' for positive values. At the bottom, statistical values are provided: ES = 0.469, NES = 1.51, Nom. p-val = 0.0202, FWER = 0.897, and FDR = 0.682.

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Heatmap visualization showing gene expression patterns across two clusters: **clus1** (red) and **NON.clus1** (blue). The y-axis lists 100 genes, and the x-axis represents individual samples. The heatmap is color-coded by cluster, with clus1 in red and NON.clus1 in blue. The expression patterns are highly variable across samples within each cluster.

Gene list (Y-axis):

- Class
- POMC
- FZD9
- LEP
- PLCB4
- WNT6
- WNT5
- ADCY5
- ADCY7
- ADCY2
- CAMR5
- EDNRB
- TCF1
- WNT5B
- GNAT1
- FZD2
- WNT4
- WNT11
- PLCB1
- PRKACB
- FRS3
- FZD1
- CALML6
- FZD8
- WNT
- WNT9B
- ADCY4
- WNT10B
- CREB1L2
- GNAS
- WNT2B
- CTNMB
- PRAC1
- KSR2
- WNT8B
- CREB1
- GSK3B
- DVL1
- CREB1L4
- CALML5
- EP300
- CREB1L1
- CALML2
- CREBBP
- FZD10
- CREB1
- FZD4
- FZD6
- KCTD13
- FZD9
- TCF7L2
- GNAS
- CALML1
- CAMK2A
- CALML3
- CALML3
- HRAS
- HRAS
- CTN1
- MAPK2
- GNAS
- WDR1
- PRKCA
- ADCY6
- GNAS
- MAPK3
- MAPK1
- DVL1
- CAMPS2
- PLCB2
- WNT3A
- CREB1L2
- WNT10A
- GNAT1
- PRKCB
- WNT3B
- ADCY9
- WNT3
- ADCY8
- WNT3A
- WNT7A