

Figure 1 displays the distribution of gene list indices for the *clus4* and *NON.clus4* clusters. The x-axis represents the Gene List Index (0 to 15000), and the y-axis represents the Number of genes: 18646 (in list), 43 (in gene set).

The top panel shows the number of genes in the *clus4* cluster (red line) versus the gene list index. The line starts at 0, rises to a peak at 5385 (labeled "Peak at 5385"), and then decreases, crossing the zero line at 7849 (labeled "Zero crossing at 7849").

The middle panel shows the number of genes in the *NON.clus4* cluster (black vertical lines) versus the gene list index. The lines are distributed across the index range, with a higher density between 0 and 5000.

The bottom panel shows the distribution of gene list indices for the *NON.clus4* cluster (green area plot). The distribution is skewed towards lower indices, with a peak near 0 and a long tail extending to the right.

Gene Set Null Density

Observed Gene Set ES value

Neg. ES "NON.clus4"

Pos. ES: "clus4"

ES

ES = 0.371 NES = 1.5 Nom. p-val= 0.0988 FWER= 0.857 FDR= 0.217

The heatmap displays gene expression levels across two main clusters: **clus4** (red header) and **NON.clus4** (blue header). The genes listed on the left include Class, RPA4, POLB2, DDB2, PCNA, RPA3, GTF2H1, POLE, XPA, RPA2, GTF2H5, ERCC5, RFC2, RFC1, GTF2H4, GTF2H3, RFC4, XPC, RFC5, GTF2H2, POLD1, CUL4B, RPA1, RBX1, CCNH, RAD23A, ERCC4, CUL4A, ERCC1, ERCC3, POLD2, POLE3, ERCC2, POLB3, DDB1, MNAT1, LIG1, POLE4, CETN2, RFC3, ERCC8, CDK7, POLD4, and ERCC6.

The columns represent individual samples, grouped under their respective cluster headers. Each cell's color indicates the expression level of a specific gene in a specific sample, with red representing higher expression and blue representing lower expression.