

Figure 1: A plot showing the distribution of the number of clusters ( $N$ ) for the "clus3" and "NON.clus3" groups. The x-axis represents the number of clusters ( $N$ ) from 0 to 15,000. The y-axis represents the density. A red line shows the "clus3" distribution, which peaks at 5,168 and crosses zero at 7,660. A green line shows the "NON.clus3" distribution, which is mostly flat with a small peak at 15,000. A dashed horizontal line indicates the baseline. A vertical red dotted line marks the peak at 5,168, and a vertical green dotted line marks the zero crossing at 7,660. The area under the red line is shaded red, and the area under the green line is shaded green.

A density plot showing the probability density  $P(ES)$  on the y-axis (ranging from 0.0 to 3.0) against the ES value on the x-axis (ranging from -0.6 to 0.6). The plot features two red curves representing the 'Gene Set Null Density'. The first curve, labeled 'Neg. ES "NON.clus3"', peaks at approximately  $x = -0.25$  with a density of 2.0. The second curve, labeled 'Pos. ES: "clus3"', peaks at approximately  $x = 0.25$  with a density of 2.0. A vertical black line at  $x \approx 0.55$  is labeled 'Observed Gene Set ES value'.

Class  
CASP10B  
PIK3CG  
IL3A  
PIK3R5  
AKT3  
TNF  
BIRC1  
IL1B  
PPP1CC  
IRAK3  
NTRK1  
FAS  
TNFRSF10D  
IRAK2  
PIK3CD  
TNFRSF10C  
TNFRSF10A  
IL1RAP  
NFKB1  
NFKBIA  
PRKACB  
CASP10  
BAX  
IL1R1  
CHP  
MYD88  
TNFRSF10B  
TRAF3  
CASP7  
MDK1  
CAPN1  
EBF1  
IRAK1  
TRAF7  
CAPN2  
TNFRSF1A  
BCL2L1  
PRKARIA  
IRAK4  
CASP8  
MAP3K14  
CFLAR  
PPP3CB  
BIRC2  
XIAP  
PIK3CA  
IAD  
ENDOG  
CYCS  
CHUK  
RIL1  
PIK3R3  
IKT1  
ENDOD1  
ENDODF  
PPP3R1  
PIK3R1  
FADD  
ATM  
AIP2  
IL1A  
IKK3  
PRKAR2A  
PRKACA  
APF1  
IPK1  
APAF1  
IKK3B  
CASP6  
DEFA  
CASP8  
IKK3C  
PRKAR1B  
DFFB  
CASP9  
PRKARCB1  
CHP2  
BCL2