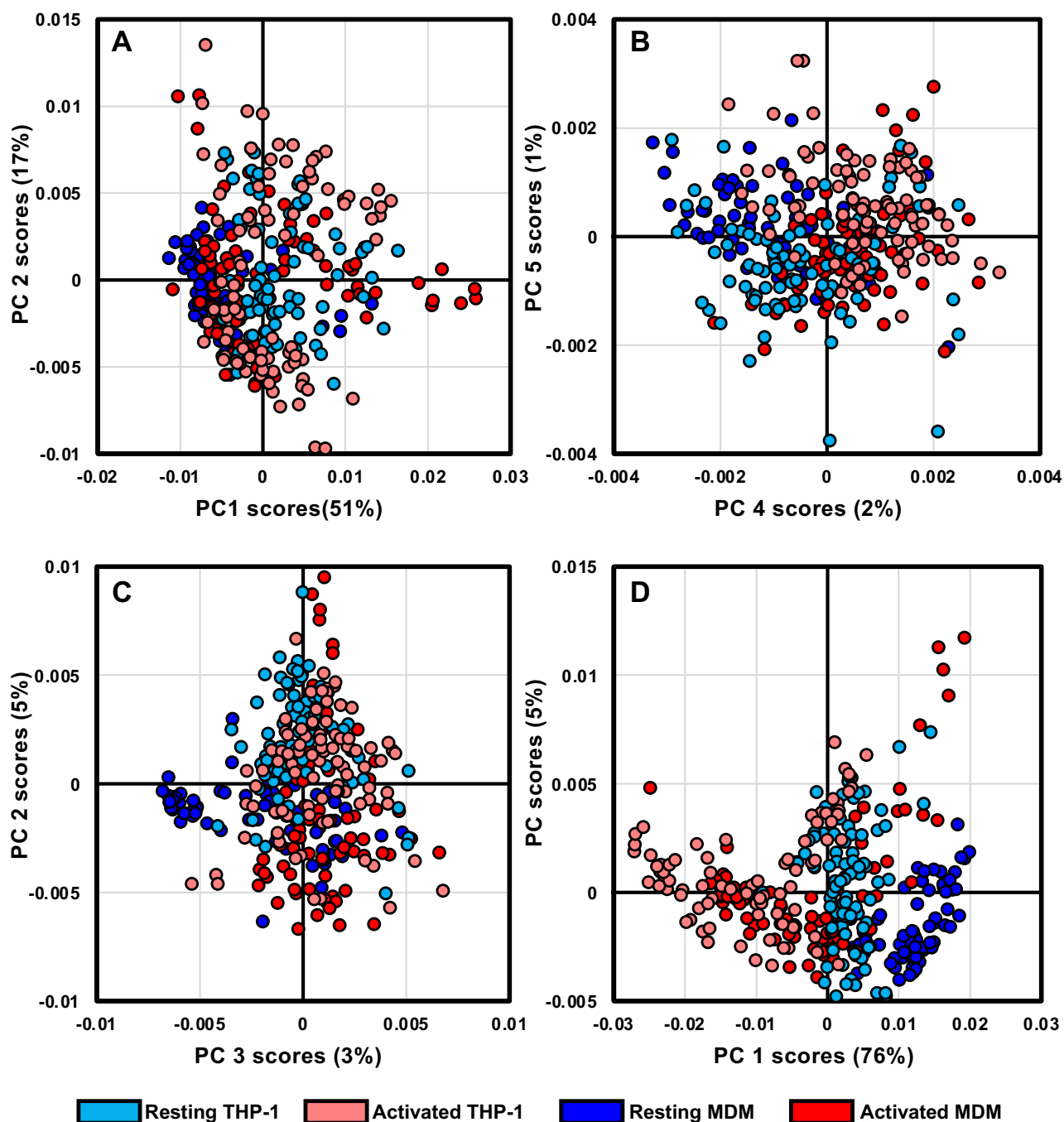**Supplementary Figure S1:** Principal component analysis (PCA) comparison of extracted spectra from TCA maps of resting THP-1 and MDM-derived macrophages. Box plots of relevant PC score values for (A) nucleic acids, (B) lipids A and (C) lipids B show a separation of spectral signatures in all selected subcellular structures. n=90 cells per group from 3 independent experiments, t-test, *p<0.05.

**Supplementary Figure S2:** PCA scores plots corresponding to the multivariate analysis between resting and activated THP-1 and MDM-derived macrophages (shown in Figure 4) for (A) nuclei, (B) cytoplasm, (C) lipids A and (D) lipids B. n=90 cells per group from 3 independent experiments.