



Supplementary Fig. 3. Three-dimensional (3D) scatter plot of the first 3 principal components (PC1, PC2, PC3) derived from principal component analysis (PCA). Each point represents a sample, with colors corresponding to different labels (label 0 and label 1). The plot visualizes the separation of the 2 classes based on the reduced feature set, highlighting how the first 3 principal components capture key variance in the data to differentiate between classes.