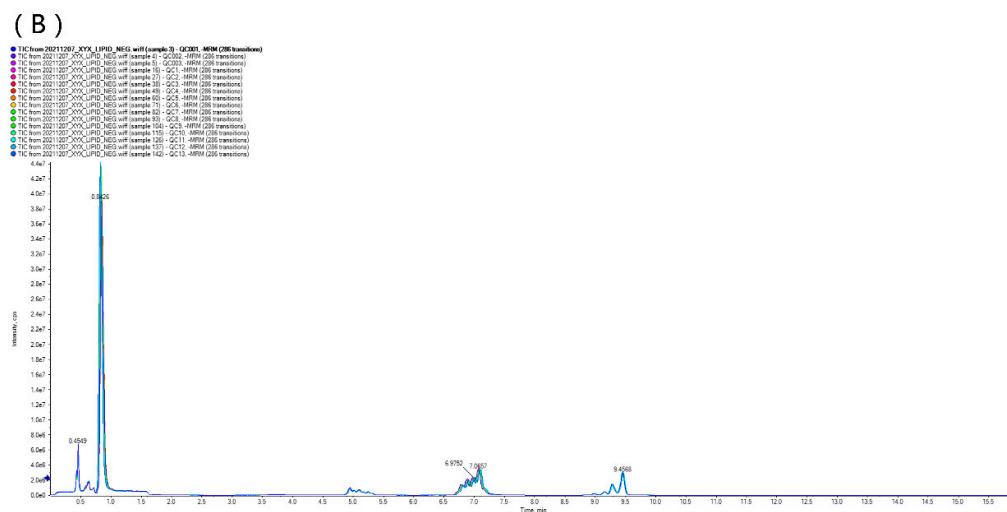
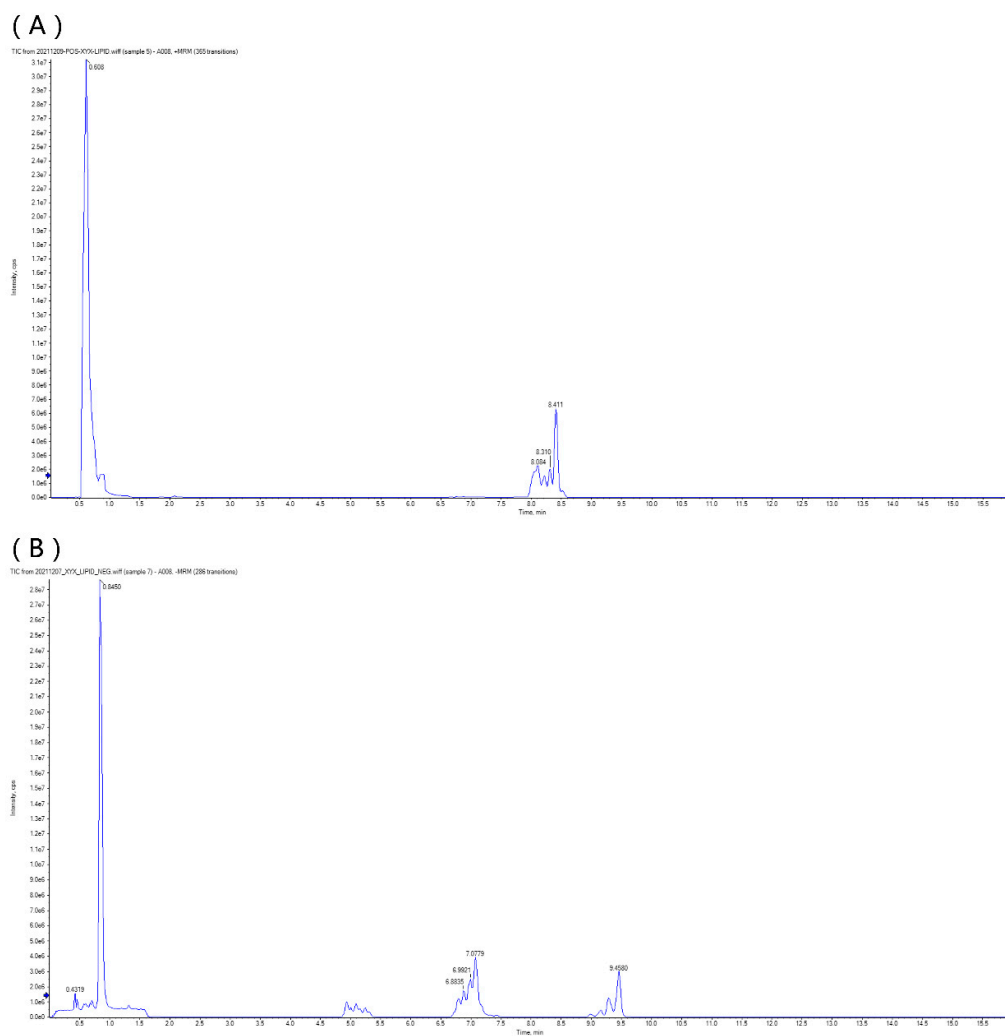


List

1. **Supplement Figure S1.** Representative chromatograms of QC by lipidomics analyses in positive (A) and negative (B) modes.
2. **Supplement Figure S2.** Representative chromatograms of case group by lipidomics analyses in positive (A) and negative (B) modes.
3. **Supplement Figure S3.** Representative chromatograms of control group by lipidomics analyses in positive (A) and negative (B) modes.
4. **Supplement Figure S4.** Lipid species identified by lipidomics.
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10. **Supplement Figure S10.** Nine differential lipids between early and intermediate to advanced stage groups in association with LC.
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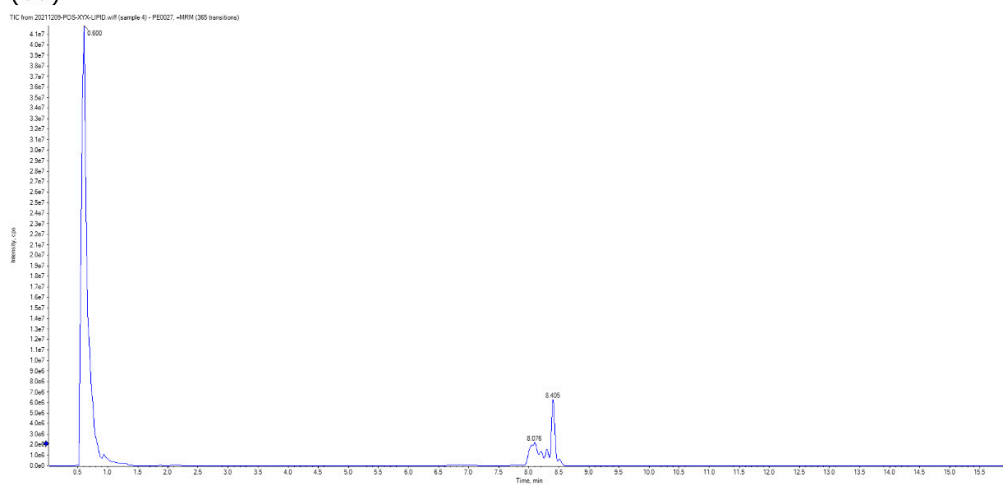


Supplement Figure S1. Representative chromatograms of QC by lipidomics analyses in positive (A) and negative (B) modes.

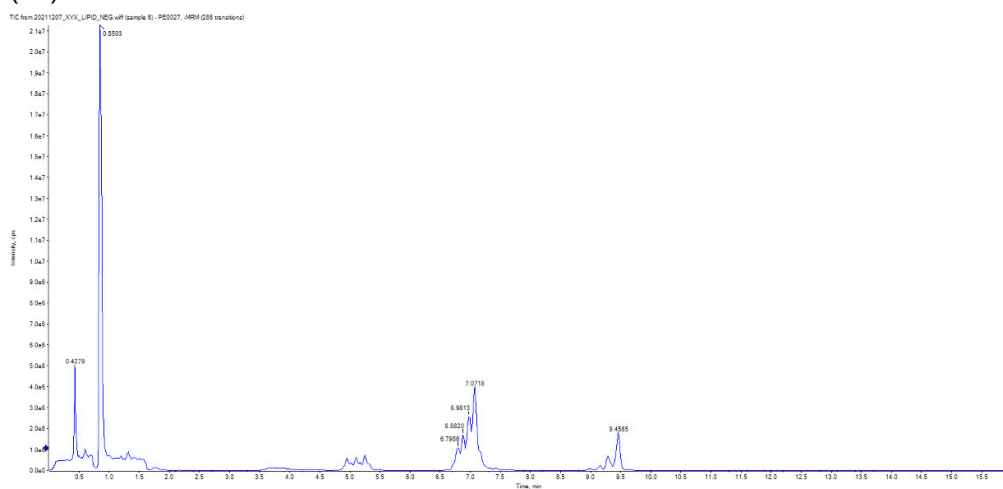


Supplement Figure S2. Representative chromatograms of case group by lipidomics analyses in positive (A) and negative (B) modes.

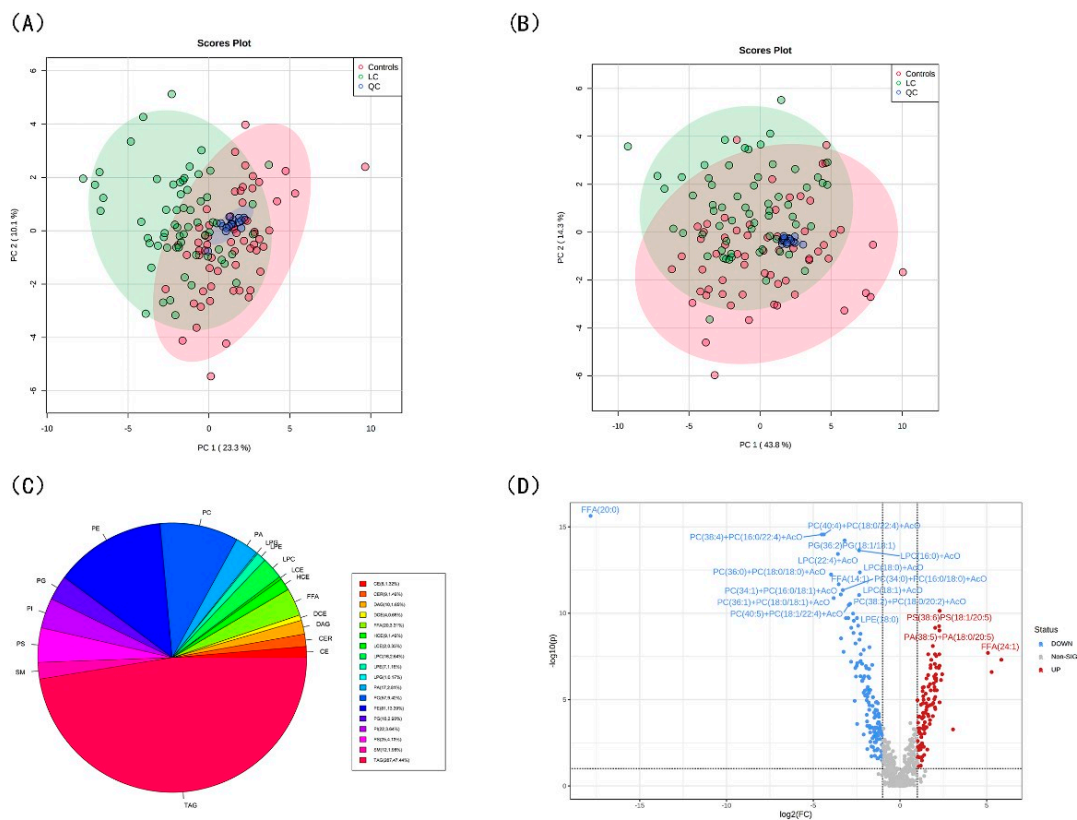
(A)



(B)

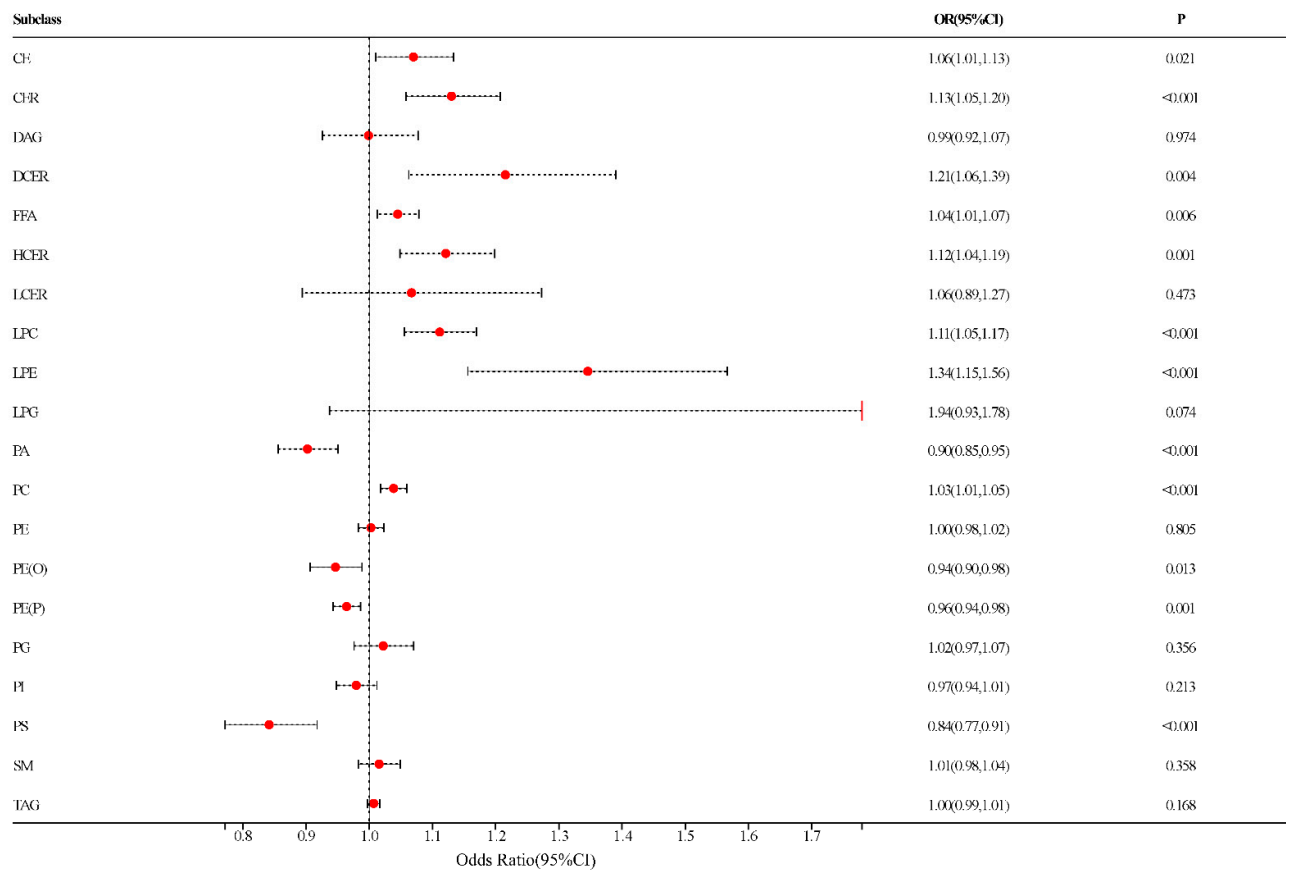


Supplement Figure S3. Representative chromatograms of control group by lipidomics analyses in positive (A) and negative (B) modes.

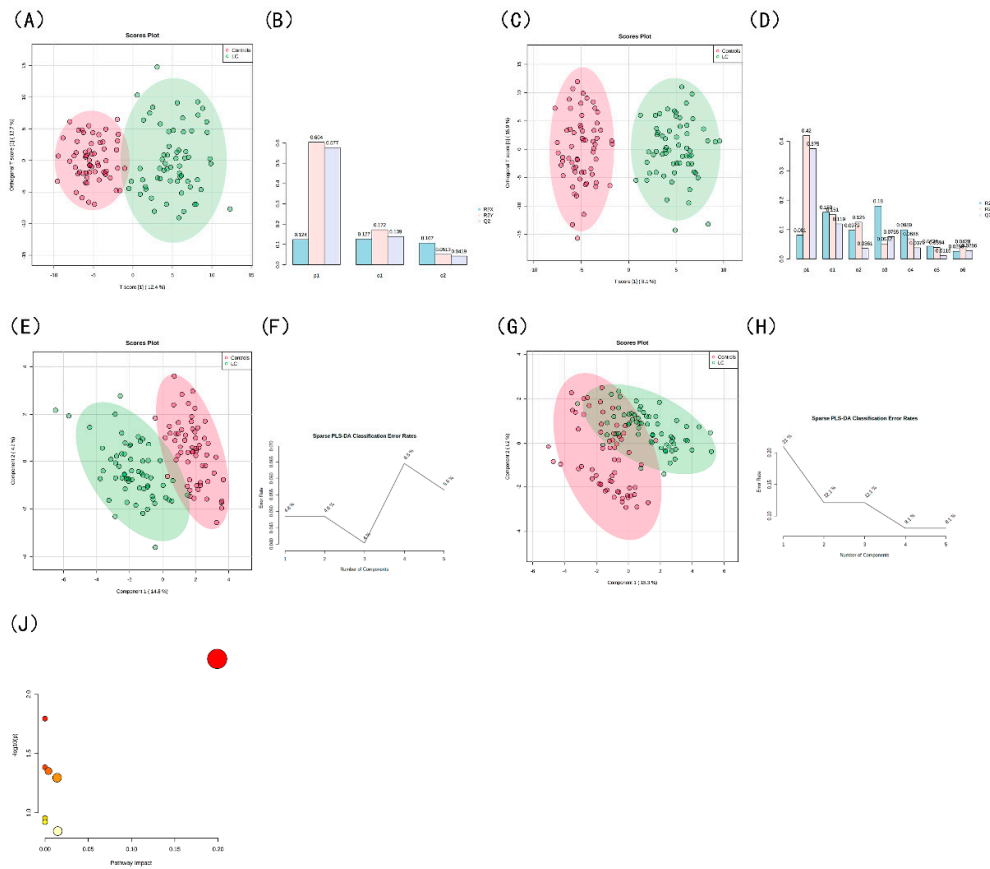


Supplement Figure S4. Lipid species identified by lipidomics.

(A) PCA score plot of NEG (B) PCA score plot of POS (C) Identification of lipid categories and counts. (D) volcano plot

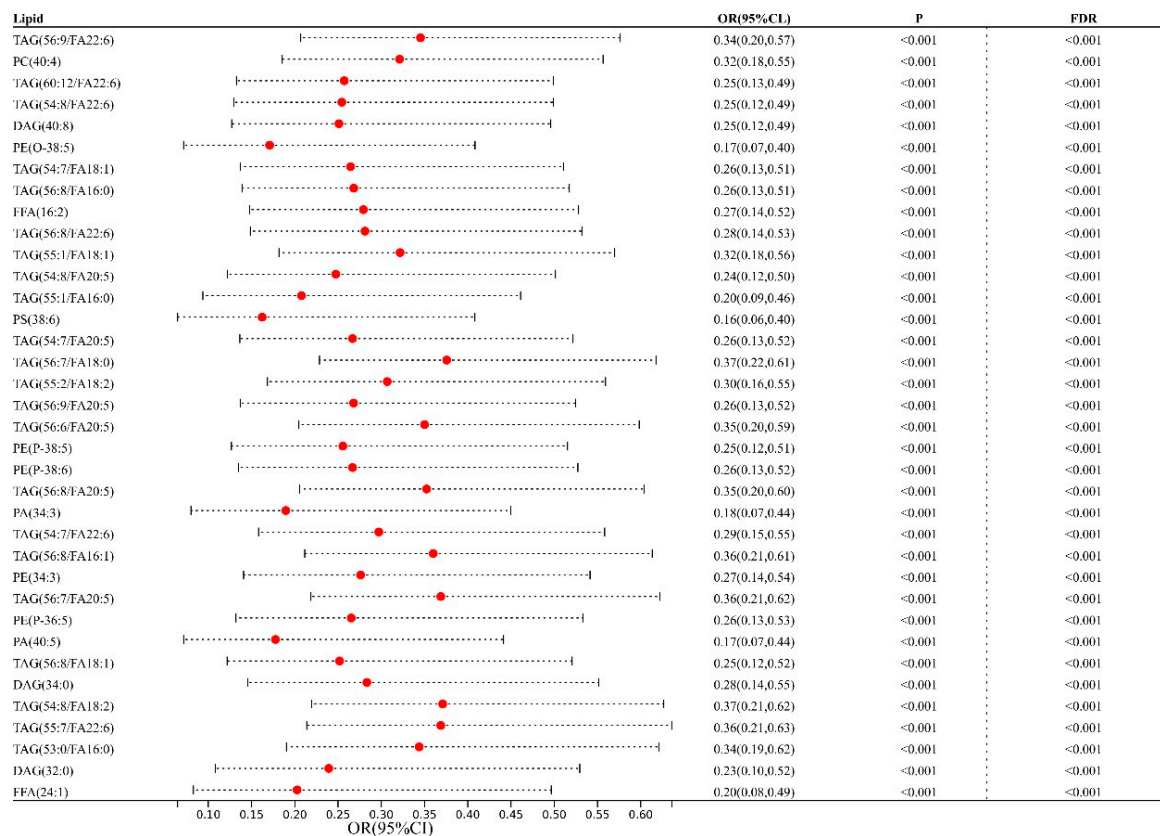


Supplement Figure S5. The association between 20 lipid subclasses and risk of LC



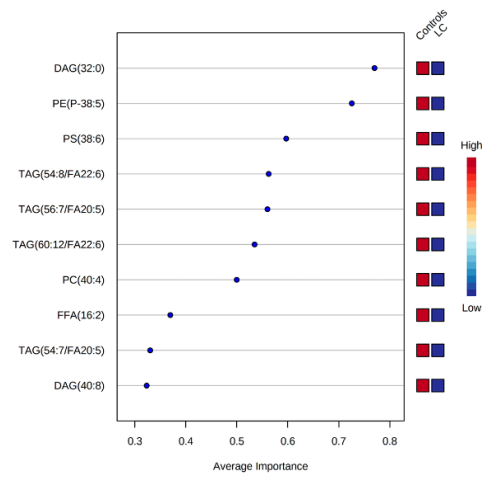
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(A) OPLS-DA score plot of neg. (B) OPLS-DA score plot of pos. (C) Validation of OPLS-DA neg by permutation test performed with 1000 random permutations test. (D) Validation of OPLS-DA pos by permutation test performed with 1000 random permutations test. (E) sPLS-DA score plot of NEG. (F) sPLS-DA score plot of POS. (G) Plot of the performance of the sPLS-DA model(neg) (H) Plot of the performance of the sPLS-DA model(pos). (I) Summary of pathway analysis by Metaboanalyst online.

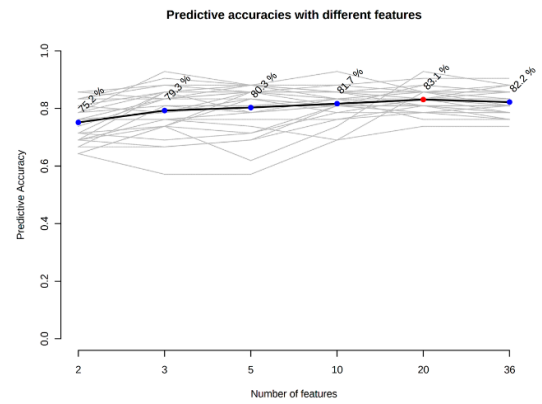


Supplement Figure S7. The association between 36 differential lipids and risk of LC

(A)

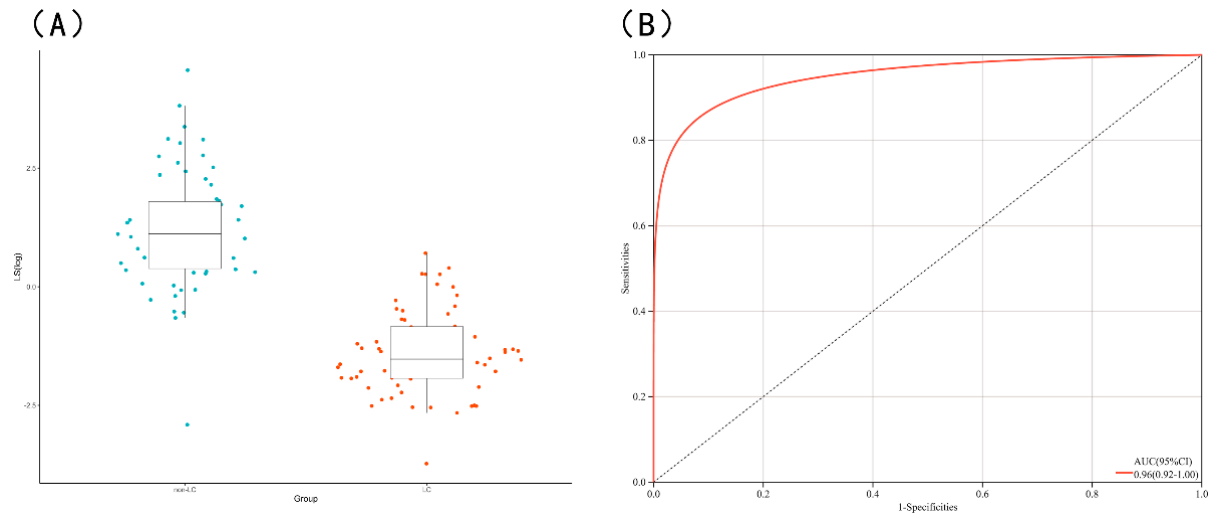


(B)



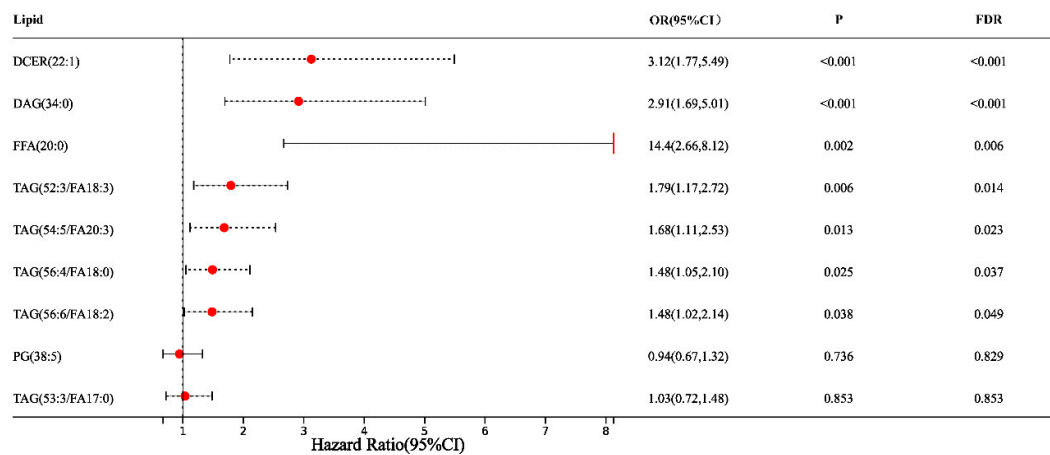
Supplement Figure S8. Selection of SVM

(A) lipidomics metabolic biomarkers of SVM classification. (B) Plot of the predictive accuracy of biomarker models (SVM)

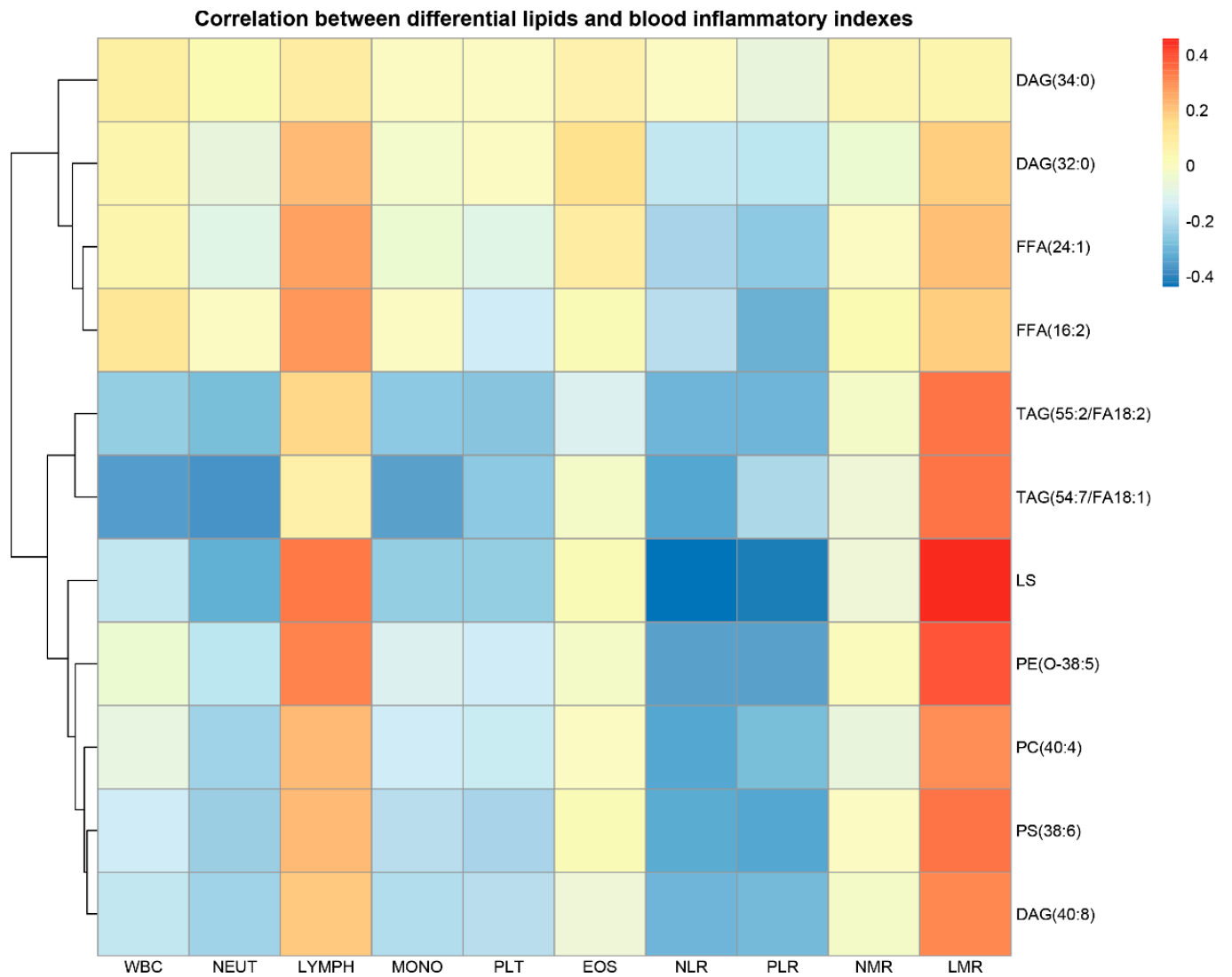


Supplement Figure S9. levels of LS in the LC and control group

(A) Box plot. (B) ROC curve analysis of LS



Supplement Figure S10. Nine differential lipids between early and intermediate to advanced stage groups in association with LC.



Supplement Figure S11. Heatmap of correlation between differential lipids and blood parameters