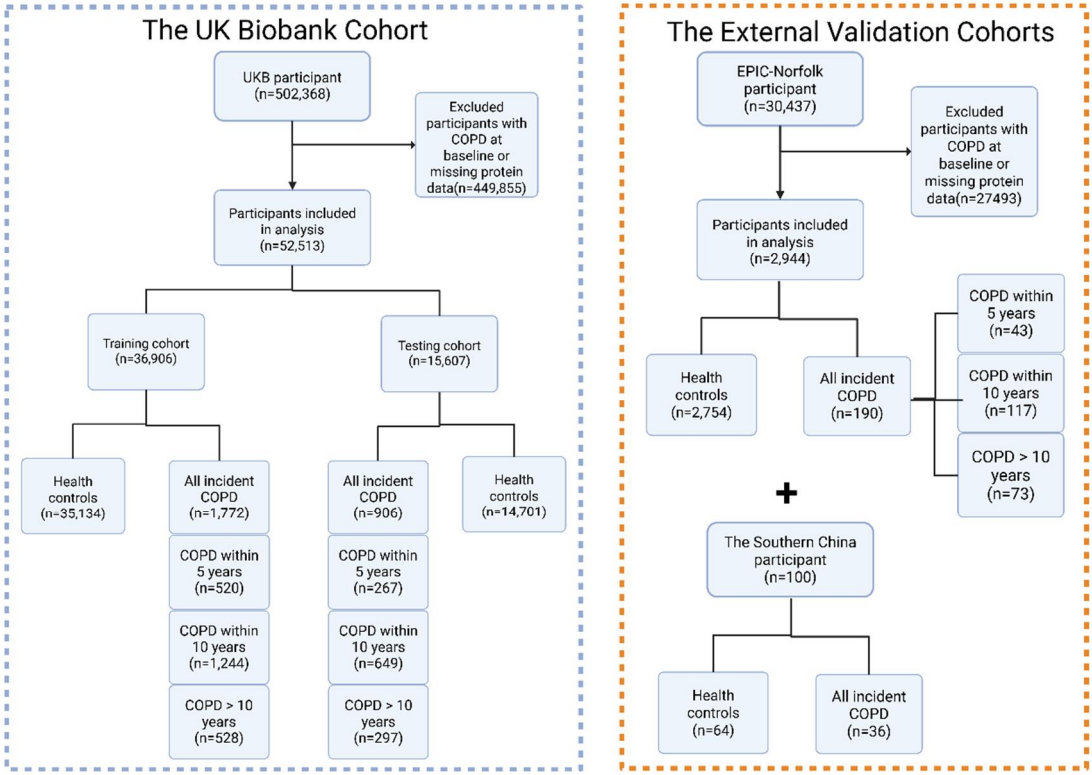
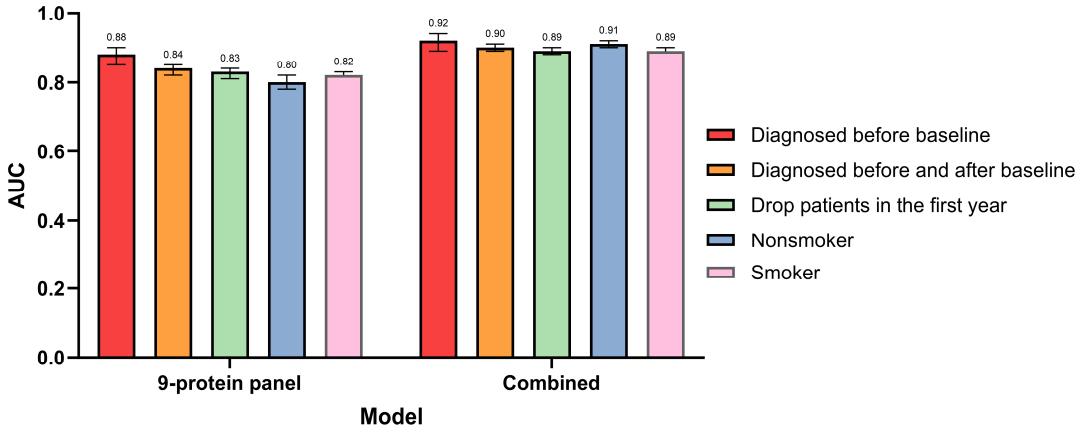
Supplementary Figure

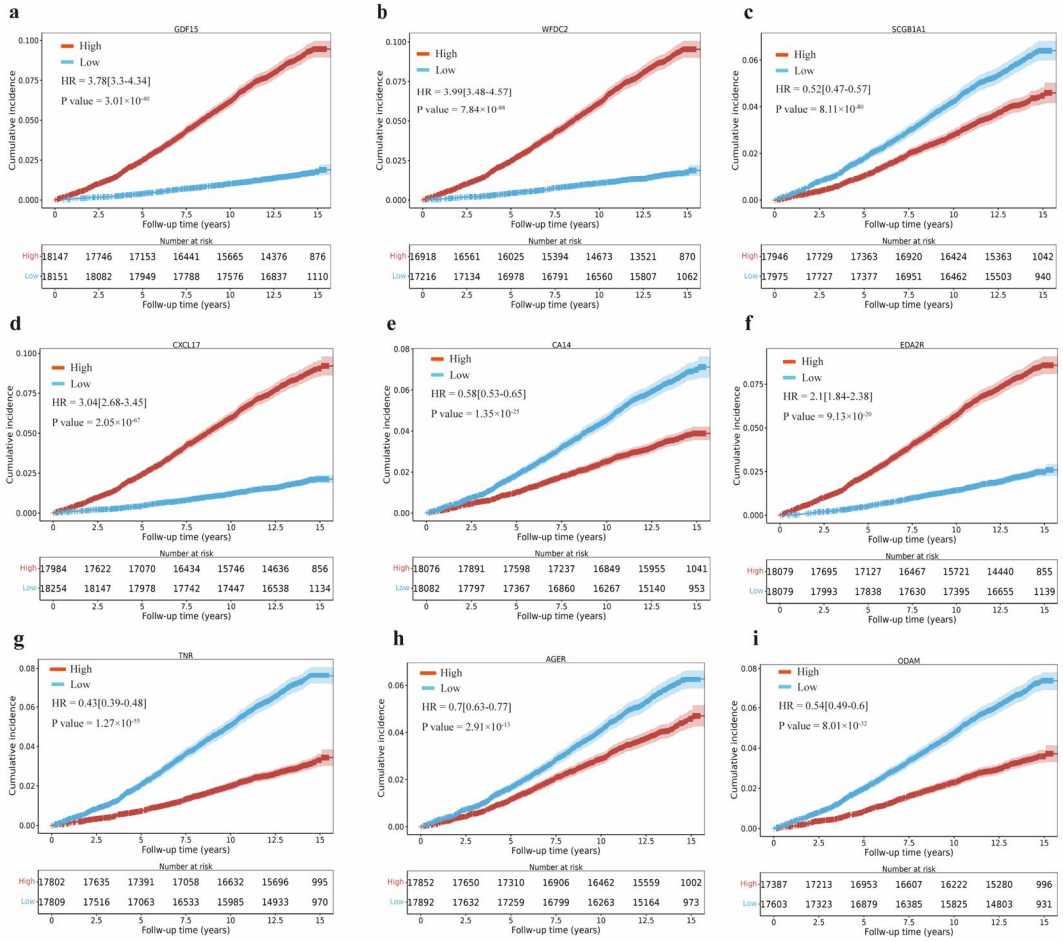
Content



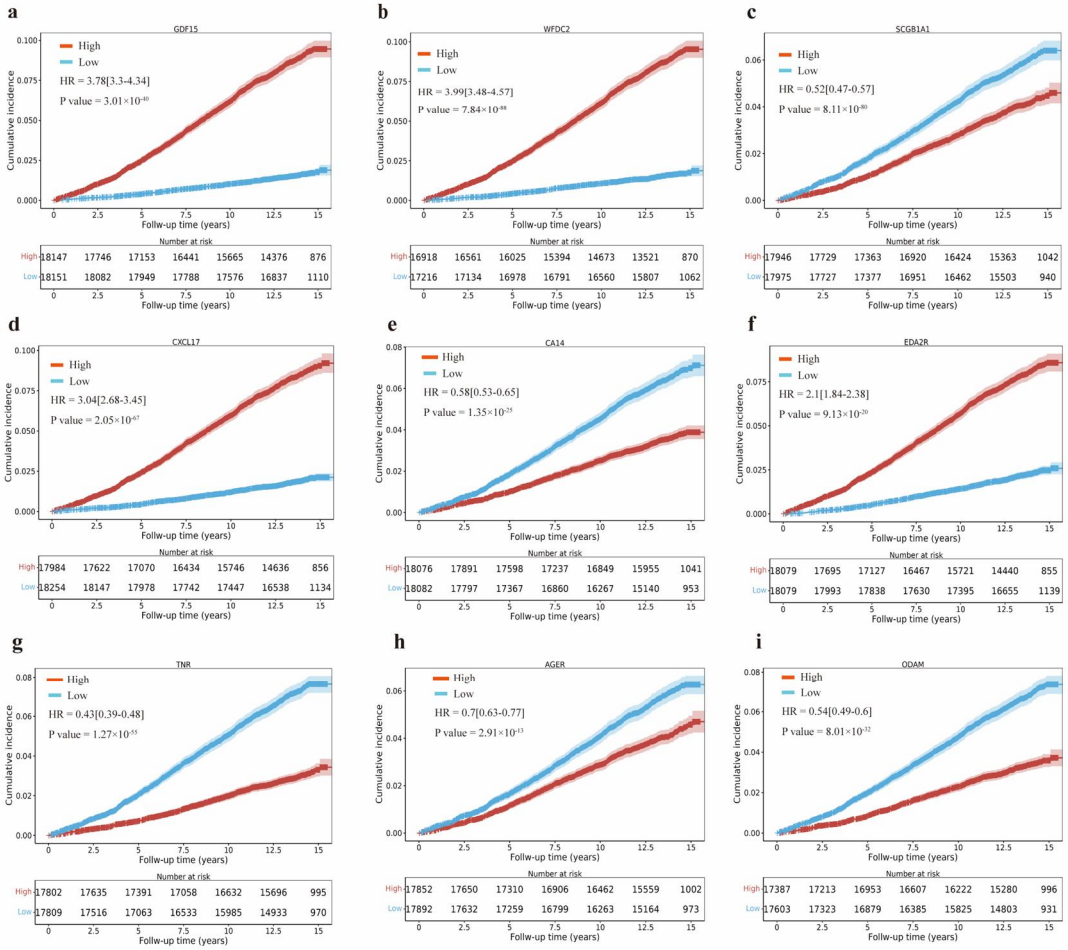
Supplementary Figure 1. Flow chart of the study. From the UK Biobank, we excluded participants with COPD at baseline or missing protein data. We then separated the population with a 7:3 ratio into training set and testing set and classified the individuals based on whether they were diagnosed with COPD. Abbreviation: COPD, Chronic Obstructive Pulmonary Disease.



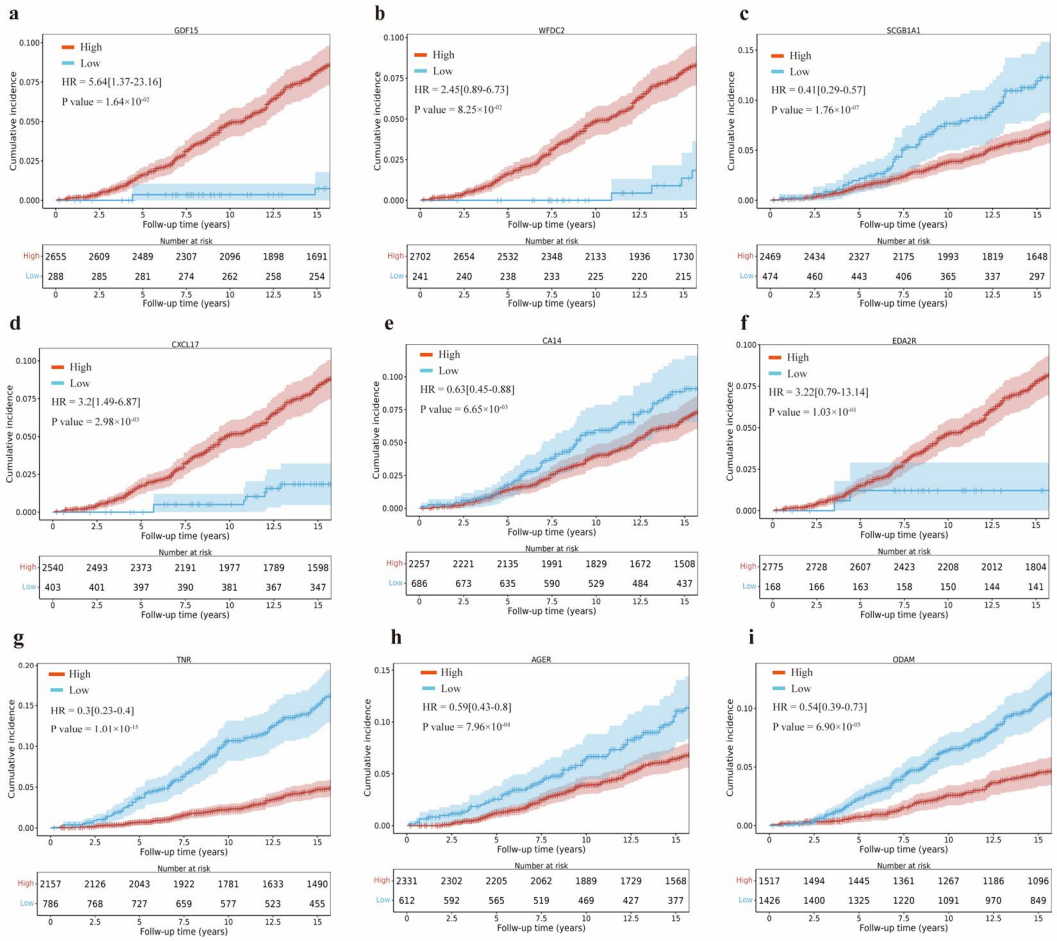
Supplementary Figure 2. Predictive accuracy (AUC) of plasma protein panel, alone or in combination with clinical variables, across different study populations. Bar plots show the median AUCs of models predicting incident COPD using a 9-protein panel alone or in combination with clinical variables, evaluated in five population subsets: patients diagnosed before baseline (red), patients diagnosed both before and after baseline (orange), patients excluding those diagnosed within the first year of follow-up (green), nonsmokers (blue) and smokers (pink). Error bars indicate the 95% confidence intervals (CIs) for each AUC. The numeric values above bars represent the median AUC for each group.



Supplementary Figure 3. Prognostic value of baseline plasma proteins in COPD progression on the training cohort. a-i, Adjusted Kaplan-Meier survival curves illustrating COPD progression based on baseline protein levels. The x-axis represents follow-up time, while the y-axis shows cumulative incidence. Participants with higher protein levels are represented in red, while those with lower levels are in blue. The cutoff for dichotomization was determined using the median NPX value of each protein. The number of individuals at risk at 2.5-year intervals is displayed below the curves.



Supplementary Figure 4. Prognostic value of baseline plasma proteins in COPD progression on the testing cohort. a-i, Adjusted Kaplan-Meier survival curves illustrating COPD progression based on baseline protein levels. The x-axis represents follow-up time, while the y-axis shows cumulative incidence. Participants with higher protein levels are represented in red, while those with lower levels are in blue. The cutoff for dichotomization was determined using the median NPX value of each protein. The number of individuals at risk at 2.5-year intervals is displayed below the curves.



Supplementary Figure 5. Prognostic value of baseline plasma proteins in COPD progression on the EPIC-Norfolk cohort. a-i, Adjusted Kaplan-Meier survival curves illustrating COPD progression based on baseline protein levels. The x-axis represents follow-up time, while the y-axis shows cumulative incidence. Participants with higher protein levels are represented in red, while those with lower levels are in blue. The cutoff for dichotomization was determined using the median NPX value of each protein. The number of individuals at risk at 2.5-year intervals is displayed below the curves.