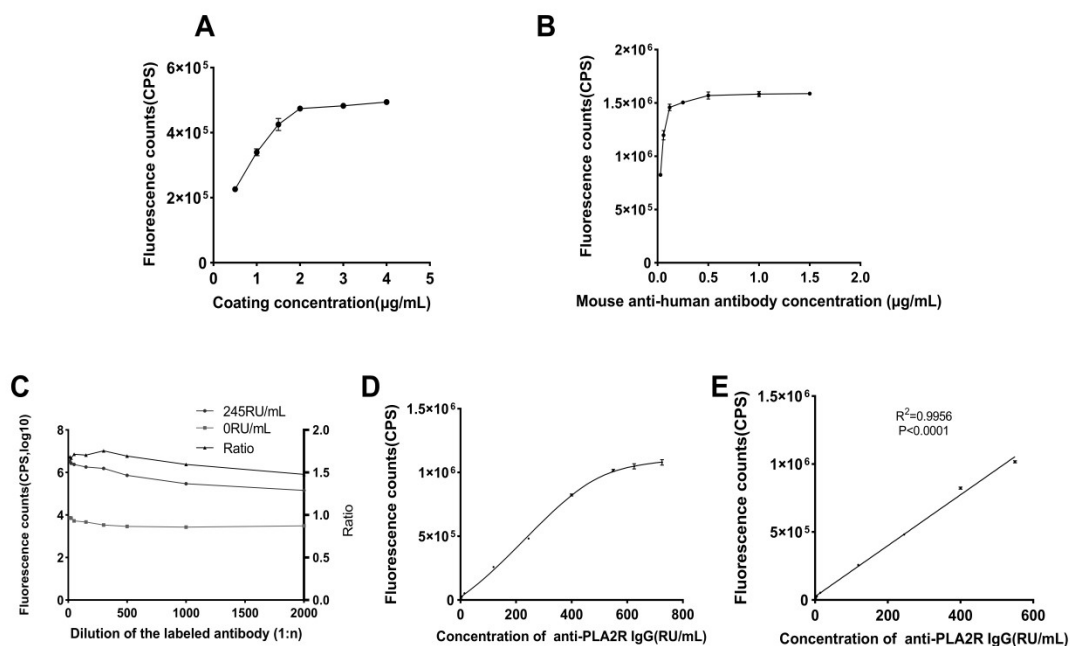




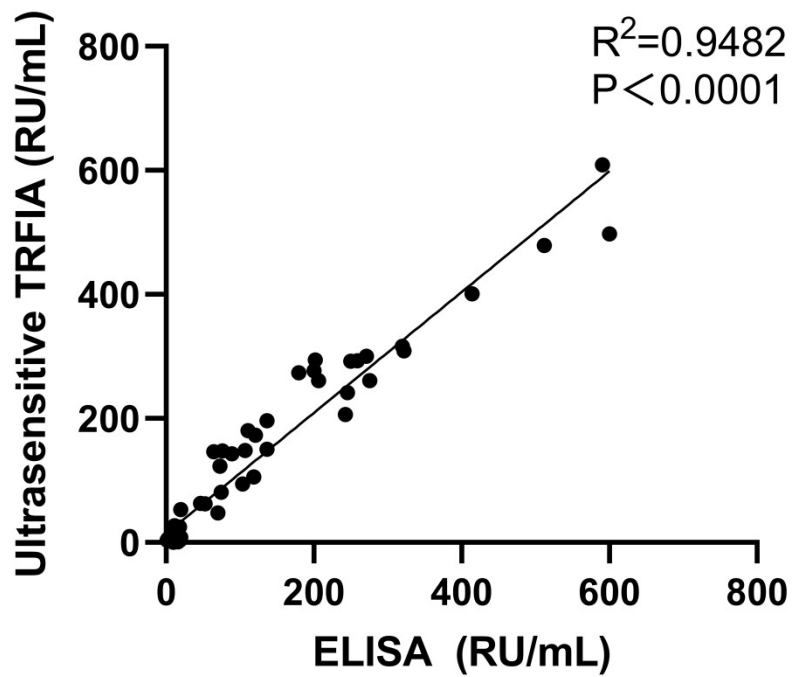
**Fig. S1.** Optimal selection of experimental reaction conditions. (A) Selection of PLA2R antigen coating concentration. (B) Optimization of the optimal concentration of mouse anti-human IgG antibody. (C) Selection of the optimal dilution ratio in the specific and non-specific binding (NSB) curve of Eu<sup>3+</sup>- goat anti-mouse IgG antibody. (D) Detection range screening for optimal linear range. (E) Linear curve of the ultrasensitive PLA2R-IgG-TRFIA assay.

**Table S1.**  
Precision of ultrasensitive PLA2R-IgG-TRFIA.

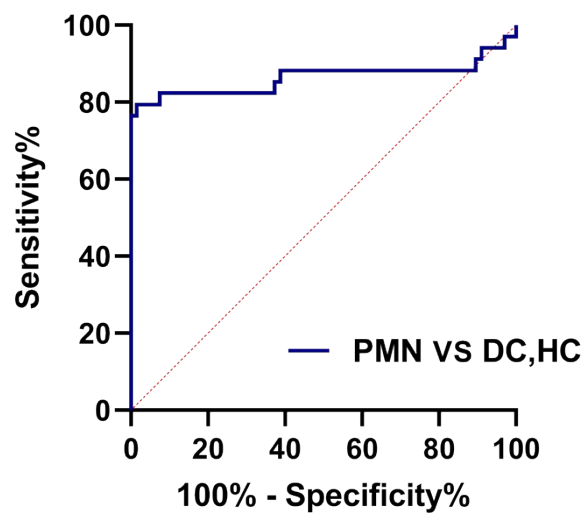
| Standard concentration (RU/mL) | Intra-assay Precision CV (%) | Inter-assay Precision CV (%) |
|--------------------------------|------------------------------|------------------------------|
| 5.3                            | 5.76                         | 9.19                         |
| 14.5                           | 3.16                         | 6.36                         |
| 245.0                          | 3.38                         | 4.39                         |
| Average                        | 4.10                         | 6.65                         |

**Table S2.**  
Ultrasensitive PLA2R-IgG TRFIA recovery test results (n=3)

| Concentration of standard (RU/mL) | Original Concentration (RU/mL) | Theoretical Concentration (RU/mL) | Measured Concentration (RU/mL) | Recovery (%) |
|-----------------------------------|--------------------------------|-----------------------------------|--------------------------------|--------------|
| 245.00                            | 56.81                          | 75.63                             | 72.21                          | 95.48        |
|                                   |                                |                                   | 81.33                          | 107.54       |
|                                   |                                |                                   | 73.56                          | 97.26        |



**Fig.S2.** Correlation of ultrasensitive PLA2R-IgG-TRFIA with ELISA values in PMN patients.



**Fig.S3** .ROC curves of anti-PLA2R IgG levels between HC 、DC and PMN patients