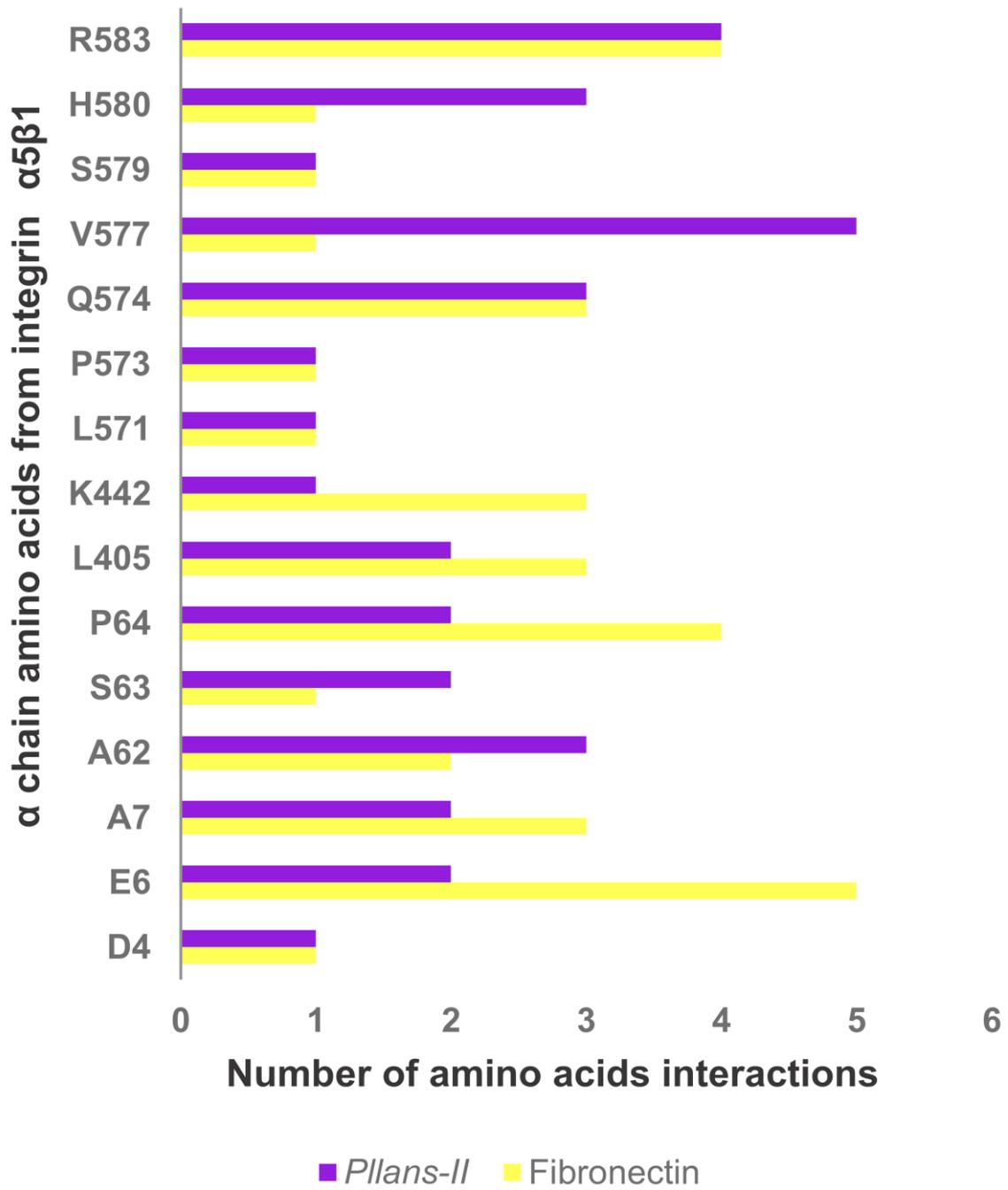
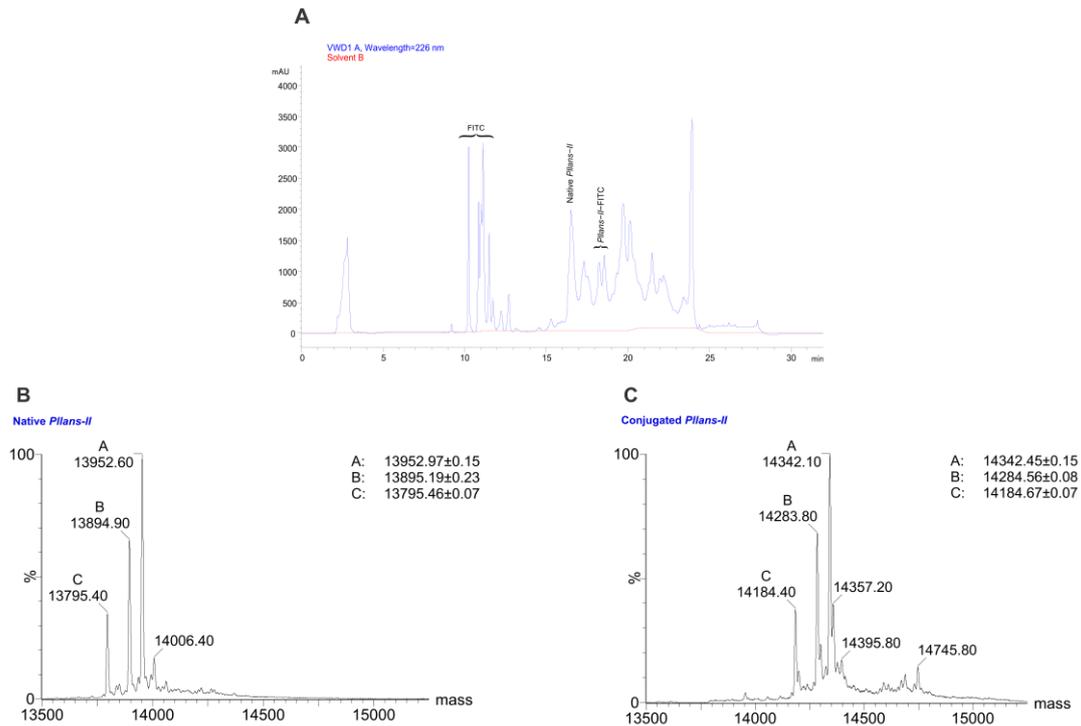


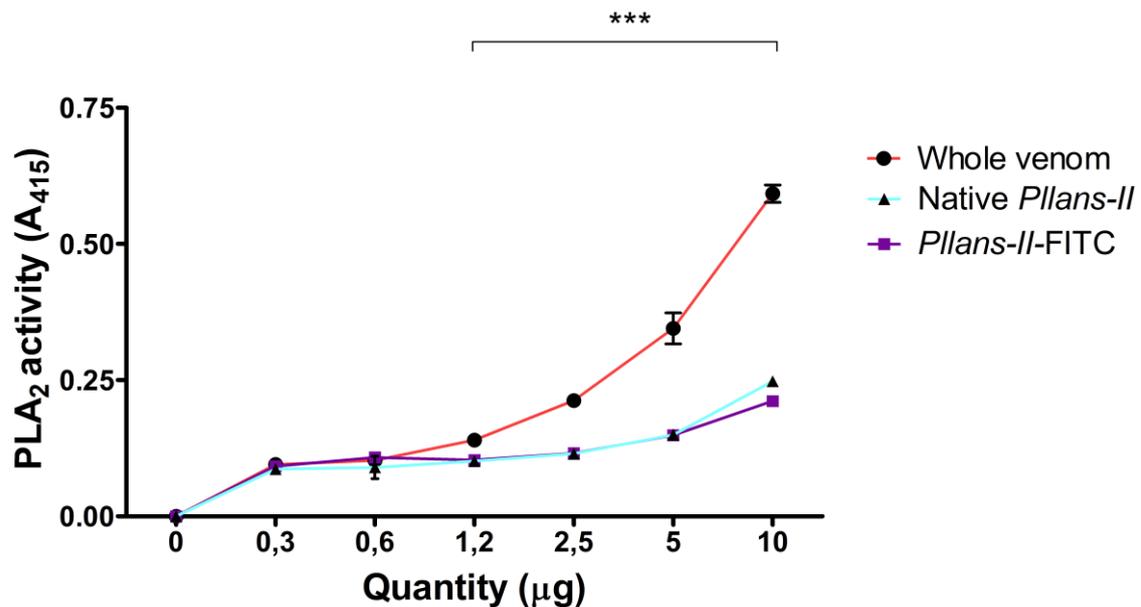
Supplementary Materials



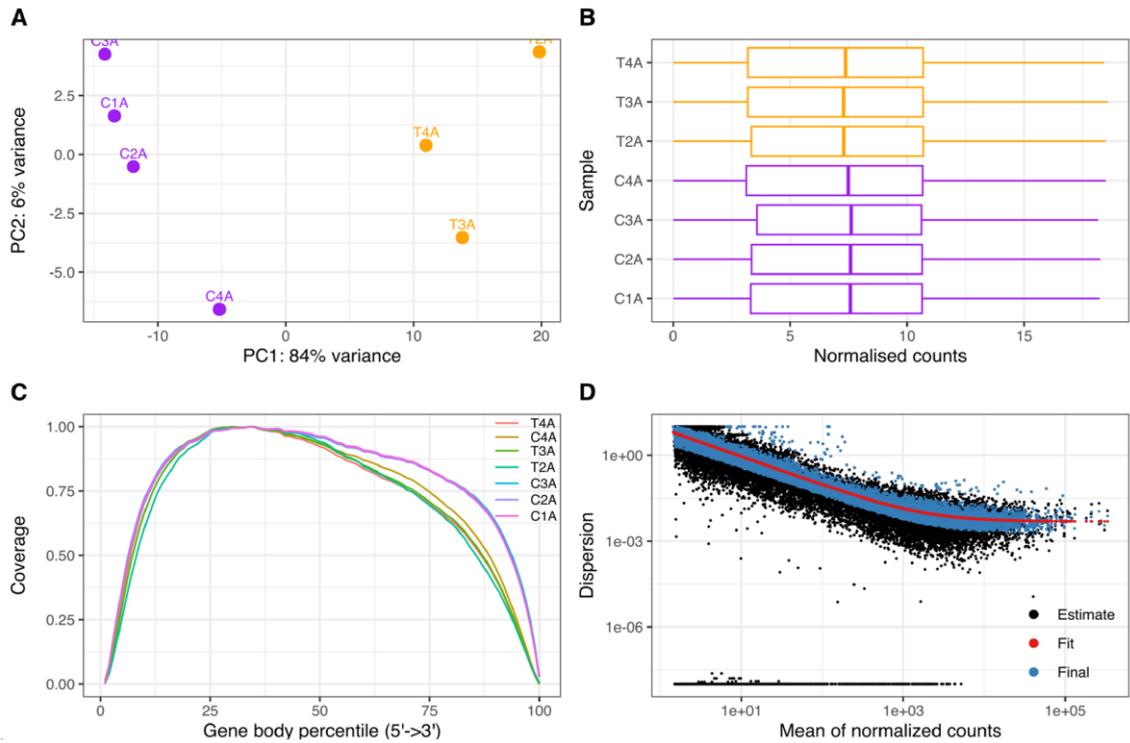
**Figure S1.**  $\alpha 5\beta 1$  integrin amino acid residues with potential for multiple interactions with *Pllans-II* amino acids (purple) and fibronectin amino acids (yellow).



**Figure S2:** RP-HPLC and mass spectrometry analyses of *Pllans-II* conjugation with FITC. (A) RP-HPLC chromatographic profile of the FITC conjugation reaction. Peaks between retention times of 10 and 14 minutes correspond to FITC solution components. The peak with a retention time of 16.5 minutes corresponds to the *Pllans-II* protein that was not conjugated, while the peaks with a retention time between 18 and 18.6 minutes correspond to *Pllans-II* conjugated with FITC. (B) Mass spectrum of native *Pllans-II*, in which it is evident that the protein is present in three isoforms (A-C) that differ by 57 Da and 101 Da, respectively. (C) The mass spectrum of conjugated *Pllans-II* shows that the three isoforms differ from the native ones by approximately 389 Da, which is the mass of FITC.



**Figure S3.** FITC-derivatized *Pllans-II* retains its enzymatic activity. Comparison of phospholipase A<sub>2</sub> activity of derivatized *Pllans-II* (*Pllans-II*-FITC, purple line), in contrast to native *Pllans-II* (light blue line) and complete venom (red line). The assay was carried out on NOBA monodisperse substrate. Data are expressed as mean  $\pm$  SD, and procedures were developed in triplicate. Statistically significant differences are observed with \*\*\*  $p < 0.001$ .



**Figure S4.** Quality control for transcriptomic analysis. **(A)** Principal component analysis (PCA). It is observed that the *Pllans-II* treatment explains 84% of the variation, while the intragroup variation represented 6%. The clustering pattern was as expected, and no potential outliers were observed for the samples. **(B)** Counting distributions. The normalized count distributions presented a similar gene expression profile, making them comparable for differential expression analysis. **(C)** Gene body coverage. A uniform distribution of the reads indicated the absence of sample degradation during sequencing. **(D)** Scatterplot and the mean of the normalized counts. The spread decreased as the mean of the normalized counts for each gene increased, indicating a good data set.