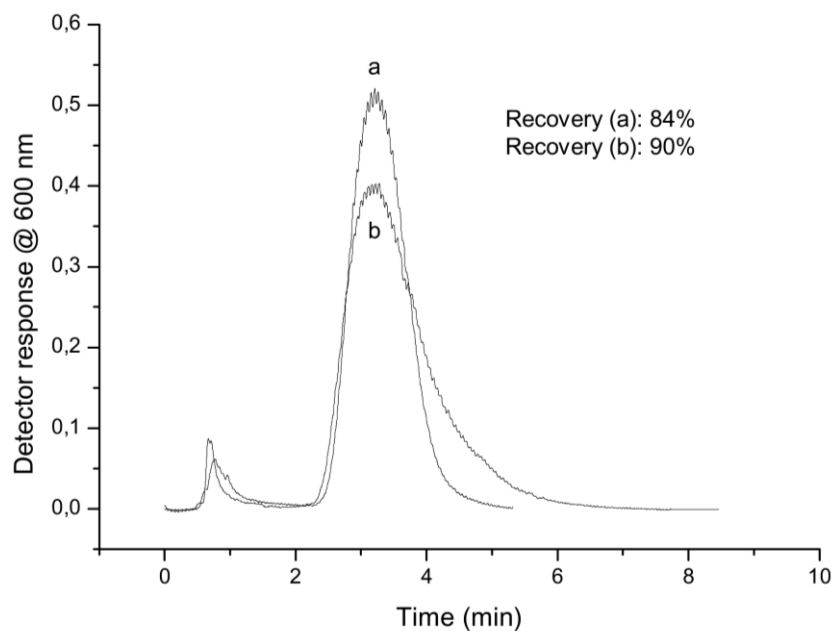
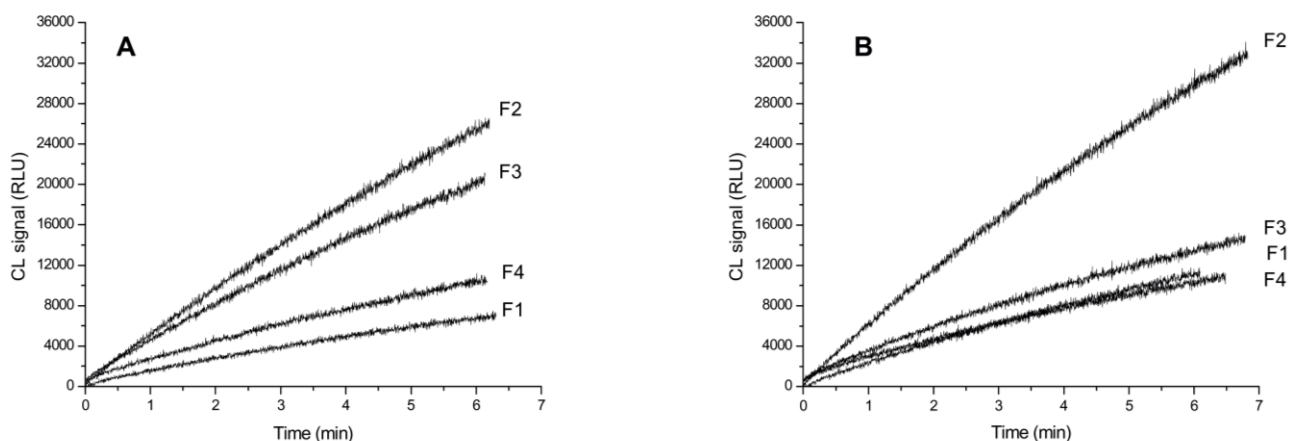


## Supplementary material

### FIGURE CAPTIONS

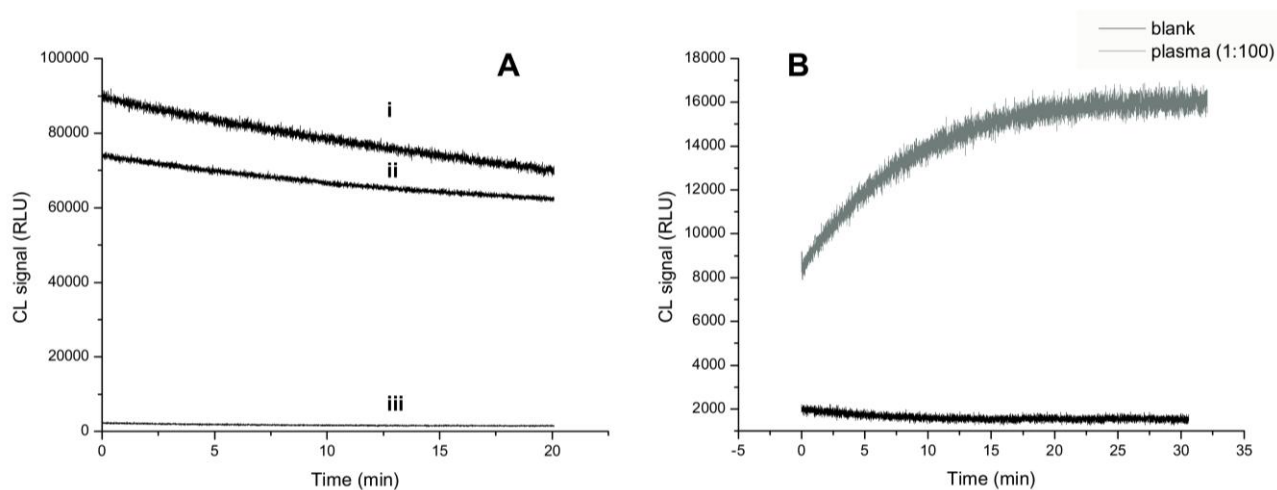


**Figure S1:** GrFFF analysis (Mobile phase: PBS + 0.1% BSA, Injection time= 15s, Injection flow rate= 0.2 mL min<sup>-1</sup>, Stop flow time= 2 min, Elution flow rate = 0.7 mL min<sup>-1</sup>) of whole blood sample (20 µL, diluted 1:5 v/v with saline solution) obtained employing a conventional rectangular channel (a) and channel having a curvilinear geometry (b). Recovery is evaluated as ratio between the area of the retention peak with respect to the area of the flow injection analysis.



**Figure S2:** Kinetics of the CL signal obtained from ALP present in fractions obtained upon the analysis of a plasma sample (diluted 1:5 v/v in saline solution) in the GrFFF-CL system and employing 6-s splitting times during void peak elution.

Panel A and B are referred to two repeated measurements of the same sample.



**Figure S3:** Panel A: on-line CL blank signals measured employing different v/v dilutions of Lumi-Phos® Plus substrate in saline solution. (i) 1:1, (ii) 1:2, (iii) 1:9.

Panel B: ALP kinetics measured on a plasma sample diluted 1:100 v/v in saline solution using Lumi-Phos® Plus substrate diluted 1:9 v/v in saline solution.