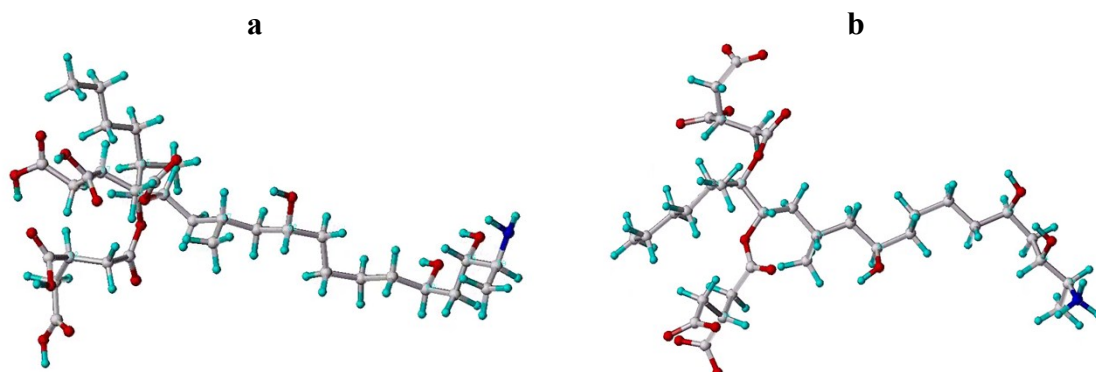


---

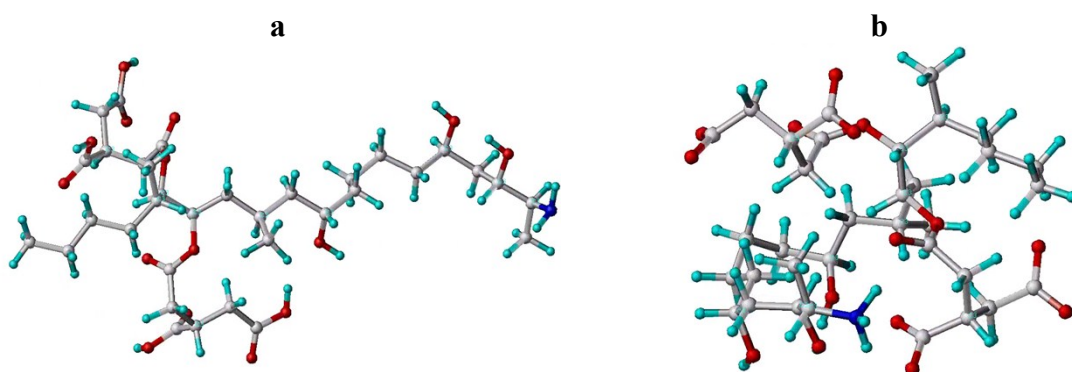
## Supporting information

---

### Section 1. Molecular modelling for FB1 enantiomers

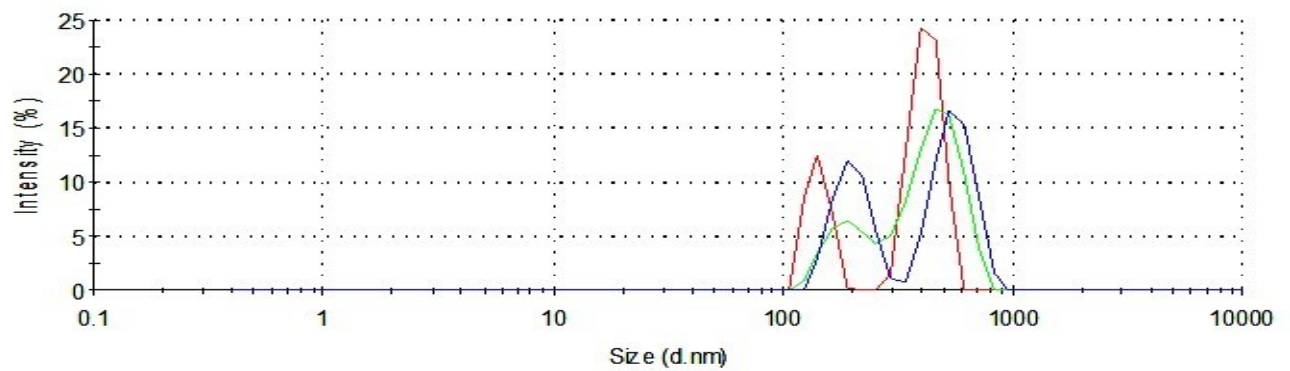


**Figure S1.** Three dimensional minimised structure of the R enantiomer FB1 in (a) vacuum and in (b) water (hydrogen: cyan, oxygen: red, nitrogen: blue, carbon: white)

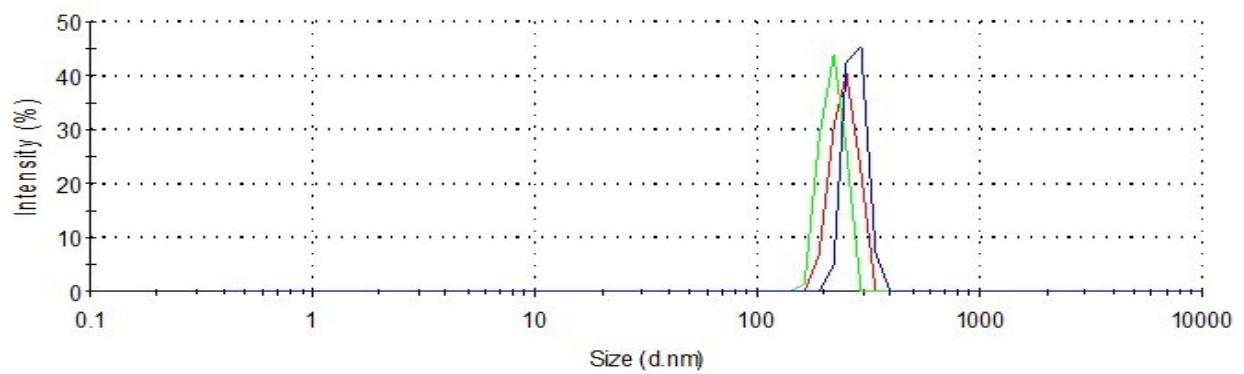


**Figure S2.** Three dimensional minimised structure of the S enantiomer FB1 in (a) vacuum and in (b) water (hydrogen: cyan, oxygen: red, nitrogen: blue, carbon: white)

## Section 2. DLS measurements for cold and hot water fraction

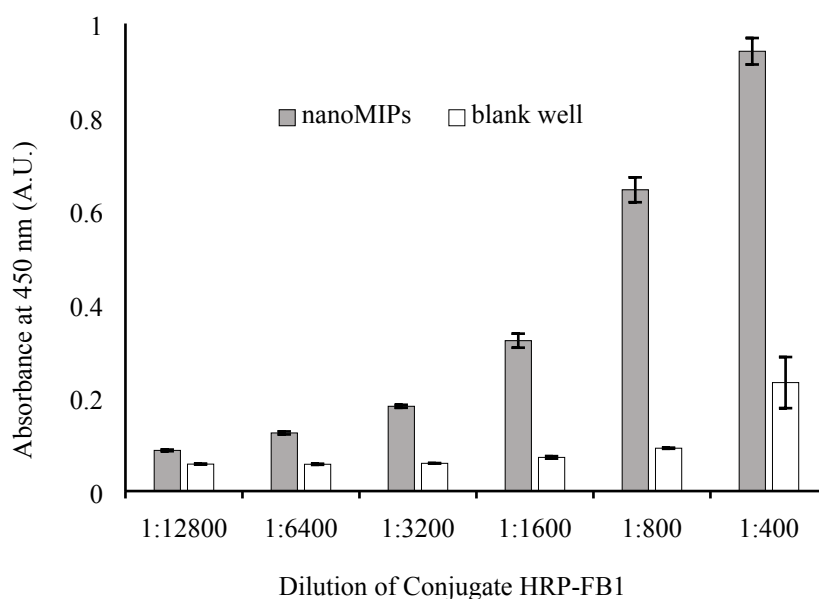


**Figure S3.** Diagram of the size distribution against intensity for cold water fraction at 40 °C.

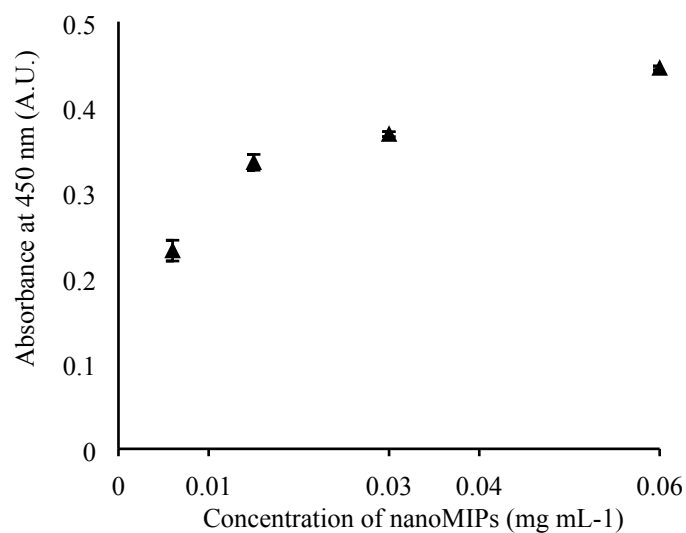


**Figure S4.** Diagram of the size distribution against intensity for hot water fraction at 60 °C.

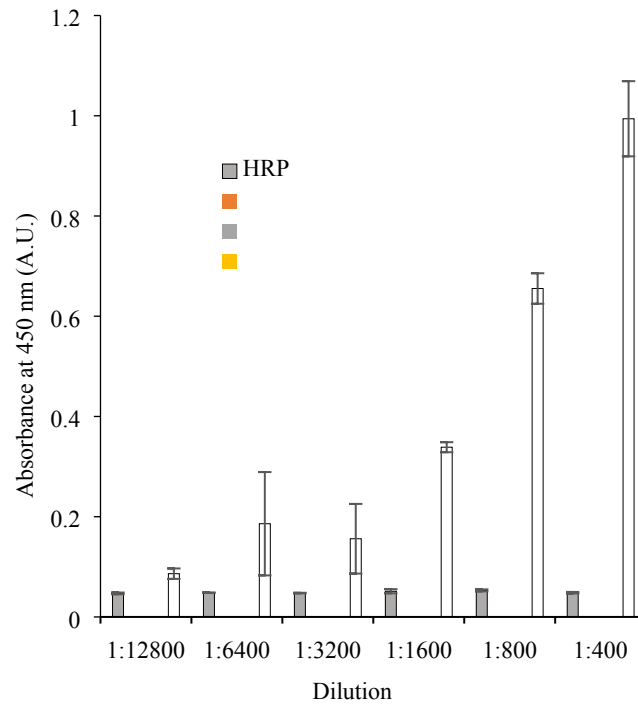
### Section 3. Optimisation of HRP-FB1 conjugate and nanoMIPs concentration.



**Figure S5.** Plot HRP-FB1 absorbance at 450 nm against HRP-FB1 concentration. Microplates were previously coated with a fixed nanoMIPs concentration ( $0.03 \text{ mg mL}^{-1}$ ), the blocking solution was incubated for 2 h, TMB substrate was incubated for 5 min, and then quenched with sulfuric acid. The control experiment was performed without nanoMIPs.



**Figure S6.** Optimisation of nanoMIPs concentration. Microplate was coated with nanoMIPs concentration ranging from  $0.006$  to  $0.06 \text{ mg mL}^{-1}$ . The HRP-FB1 conjugate at 1:800 dilution, the blocking agent was incubated 2 h, TMB substrate was incubated for 5 min and then quenched with sulfuric acid.



**Figure S7.** Plot absorbance at 450 nm against HRP and HRP-FB1 concentration in a nanoMIPs. The concentration used of HRP and HRP-FB1 were dilutions from 1:12800 to 1:400. Microplates were previously coated with a fixed nanoMIPs concentration ( $0.06 \text{ mg mL}^{-1}$ ), the blocking solution was incubated for 2 h, TMB substrate was incubated 5 min and then quenched with sulfuric acid.