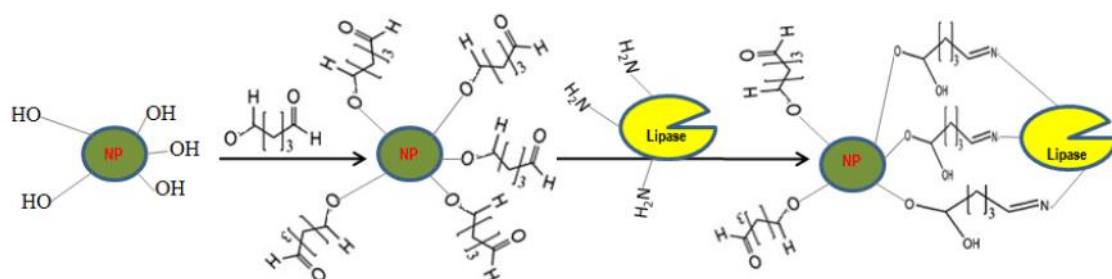
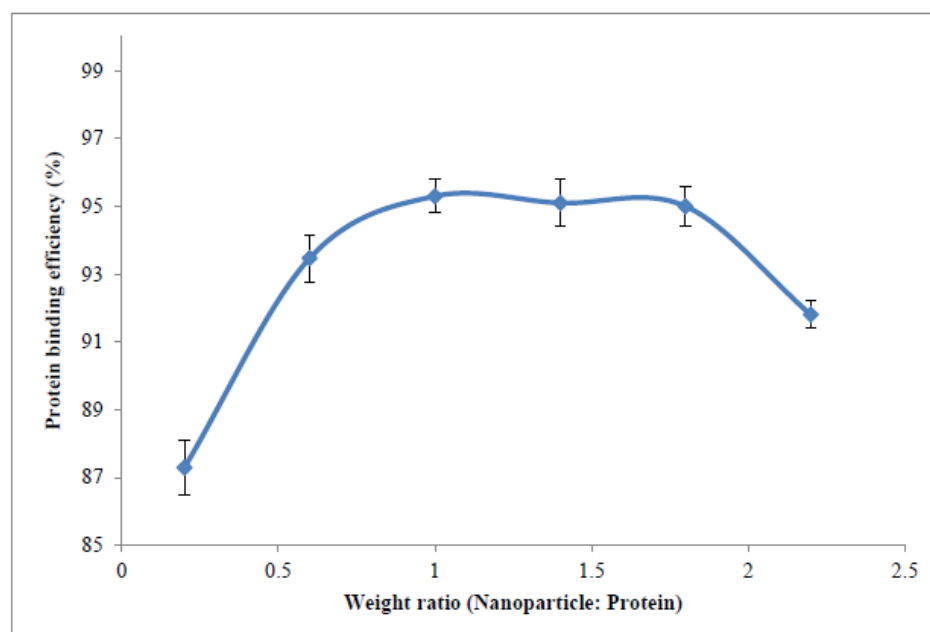


Figure S1.



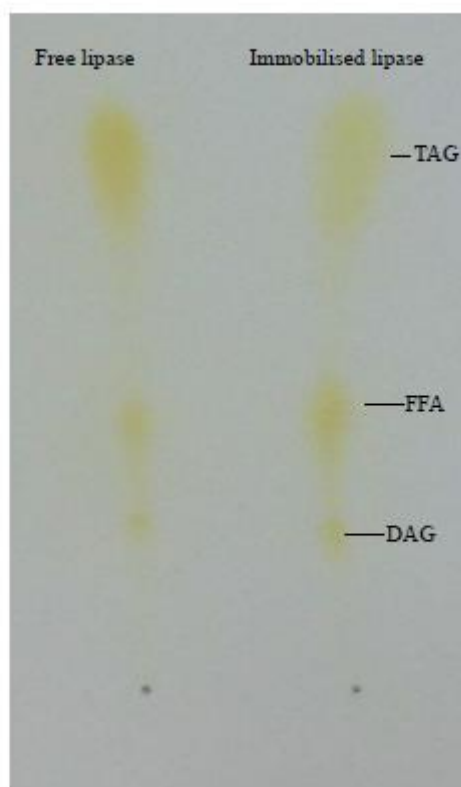
Footnote: Magnetic nanoparticle (NP) is activated with a cross-linker (glutaraldehyde). Nanoparticle is biofunctionalised with recombinant lipase by covalent bonding between amino group of enzyme and carbonyl group of the functionalised support.

Figure S2.



Footnote: Protein binding efficiency was determined by varying the weight ratio of functionalised nanoparticle to protein. The experiment was conducted at 25 °C, 150 rpm for 12 h. Immobilisation of recombinant *Bacillus subtilis* lipase was provided maximum binding (95.3%) using 1:1 ratio of Protein: NP concentration. This concentration ratio is used for optimising all other experimental parameters.

Figure S3.



Footnote: TLC exhibited separation of triacylglycerol and free fatty acid after enzymatic hydrolysis of anchovy oil. TAG Triacylglycerol; FFA Free Fatty acid; DAG Diacylglycerol

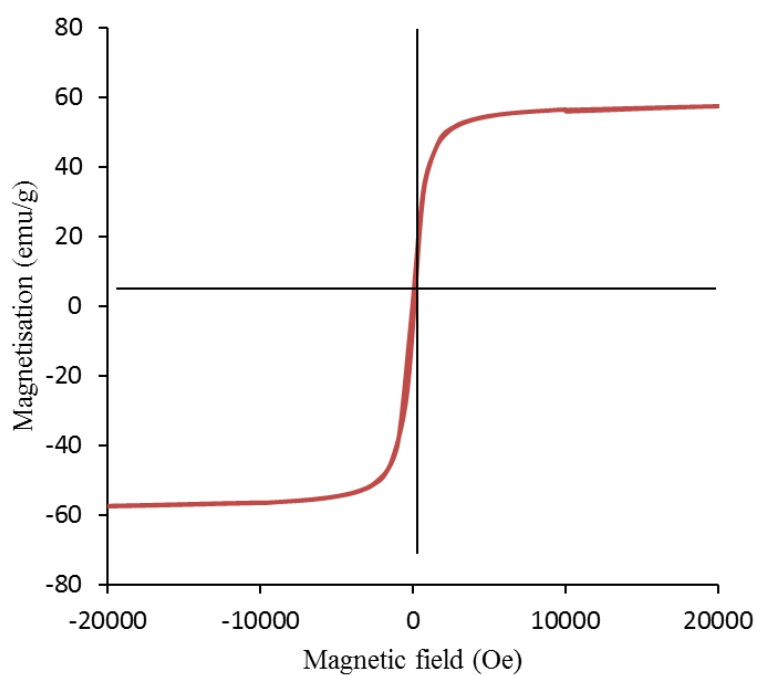


Figure S4: Magnetic hysteresis curve of undoped nanoparticles.

