

**S1 Fig. Determination of the kinetic parameters (on-rate and off-rate) of the interaction between streptavidin (or its muteins) and SBP [or SBP(A18C)] tagged β-lactamase.**

BLA-L-SBP and BLA-SBP(A18C) were immobilized to biosensor chips. Wild-type streptavidin, SAVSBPM32 and SAVSBPM18 functioned as analytes. (A) Linearized data from sensorgrams for the determination of the on-rate (slope of the plot). (B) Linearized data from sensorgrams for the determination of off-rate (slope of the plot). Data plotted for M18:A18C and M32:SBP in (B) are the average of three replicates ± SEM. Data plotted for wtSAV:SBP and M18:SBP are from one trial (B). wtSAV: wild-type streptavidin; M18: streptavidin mutein SAVSBPM18; M32: streptavidin mutein SAVSBPM32; SBP: BLA-L-SBP (β-lactamase tagged with SBP tag); A18C: BLA-L-SBP(A18C) (β-lactamase tagged with SBP tag).