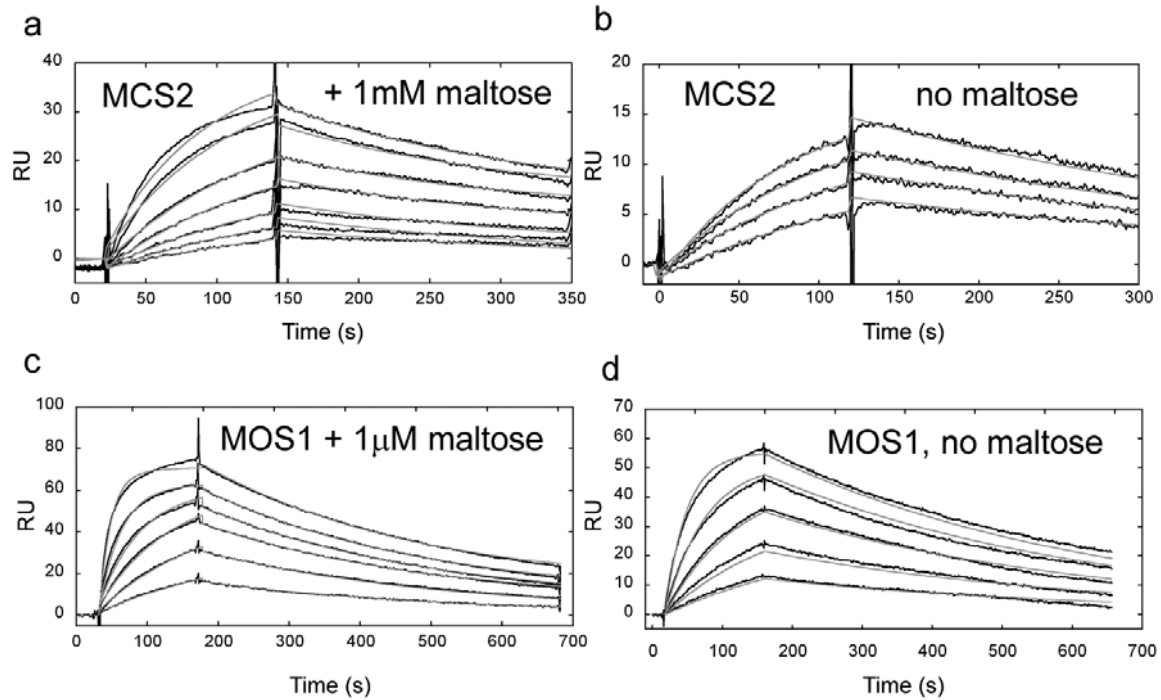


Supplementary Figure 1. Phage ELISA analysis of closed-specific clones. Binding of individual clones to immobilized MBP was detected by measuring the ELISA signal in the absence (\blacklozenge) or presence (\square) of maltose. Binding was also determined in the presence of free MBP in solution (competitor). The competition ratio represents the ELISA signal in the presence of competitor divided by the signal in the absence of competitor. Clones with high ELISA signal and low competition ratio (shaded area) were chosen for sequencing and further characterization.



Supplemental Figure 2. The effect of maltose on sAB binding to MBP. Surface plasmon resonance analysis of sAB MCS2 interaction with immobilized MBP in the presence (a) or absence (b) of 1 mM maltose. Binding kinetics of sAB MOS1 with immobilized MBP in the presence (c) or absence (d) of 1 μM maltose.