

#### S4 Fig. QCM-D - Surface regeneration.

(A) Two silica sensors were modified with mPEG (upper) and Nsp1FG (lower) and then tested with GST-Kap95. The data show 6 experiments performed serially, varying binding time and buffer condition: (i) 2 min in TB-D, (ii) 2 min in TBS-D, (iii) 2 min in TBT-D, (iv) 60 min in TB-D, (v) 60 min in TBS-D, (vi) 60 min in TBT-D. A HUT wash step was included between each experiment to regenerate the surface. (B) Magnified views of the HUT washing steps in (A). (C) Multiple 1 $\mu$ M Kap95 binding experiments were repeated on the same Nsp1FG sensor. Regeneration with HUT solution and reproducibility of Kap95 binding was tested. Each color indicates replicate binding events with surface regenerations in between. F5 and D5 indicate 5<sup>th</sup> overtone of  $\Delta F$  and  $\Delta D$ , respectively. TB: 20 mM HEPES-KOH (pH 7.4), 110 mM KOAc, 2 mM MgCl<sub>2</sub>, 10  $\mu$ M CaCl<sub>2</sub>, and 10  $\mu$ M ZnCl<sub>2</sub>; TB-D: TB with 5 mM DTT; TBS-D: TB-D with 150 mM NaCl; TBT: TB with 0.1% v/v Tween20; TBT-D: TBT with 5 mM DTT; TBT-PVP: TBT with 0.3% (w/v) polyvinylpyrrolidone. HUT: 50 mM HEPES, 8 M urea and 0.5% Tween20.

