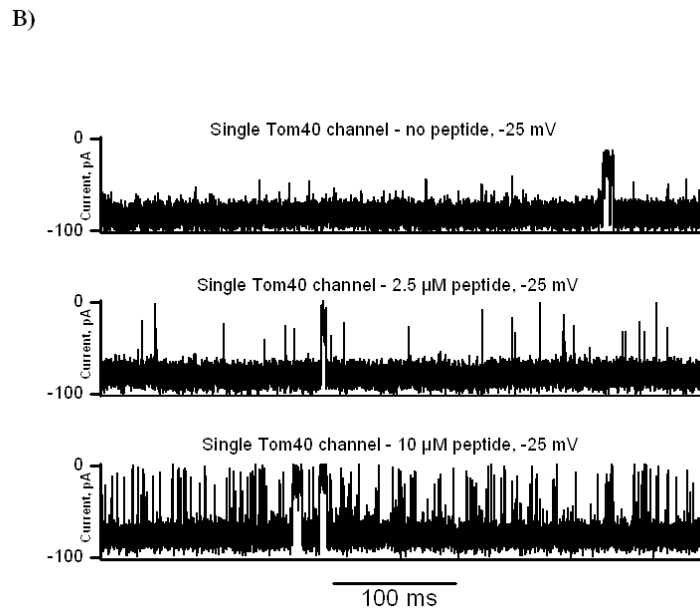
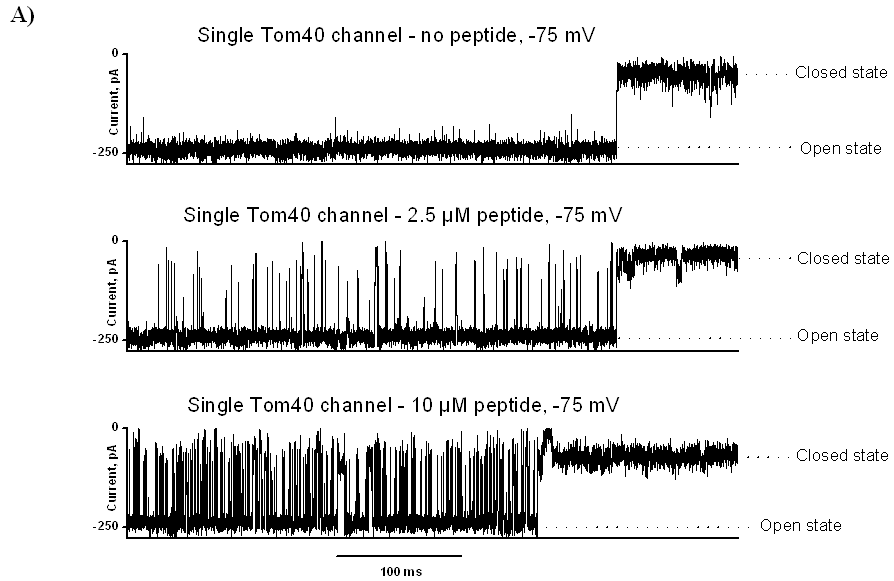


**PROTEIN TRANSLOCATION THROUGH TOM40:  
KINETICS OF PEPTIDE RELEASE**

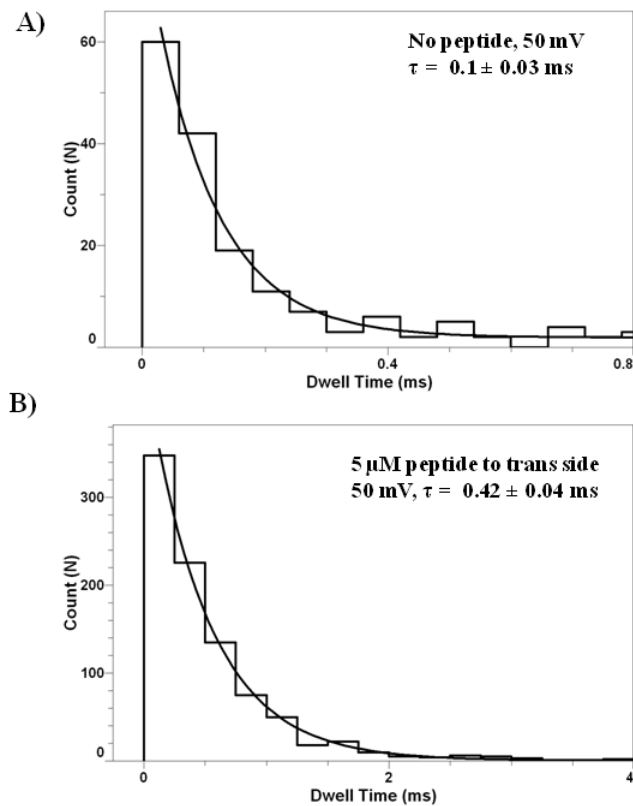
Kozhinjampara R. Mahendran, Mercedes Romero-Ruiz, Andrea Schlösinger, Mathias Winterhalter and Stephan Nussberger

**Supplementary Figure 1**



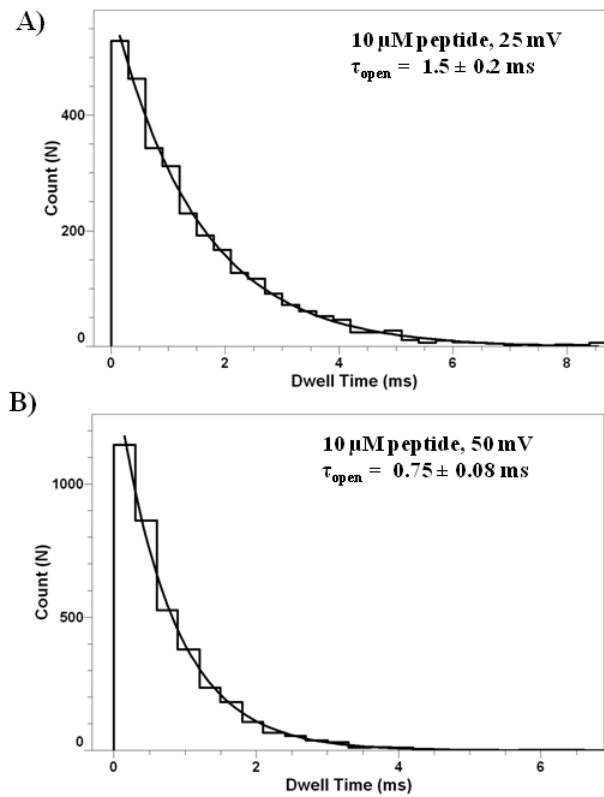
Typical ion current recordings through single Tom40 channel in the absence and presence of peptide added to the *cis* side of the lipid membrane for an applied voltage of A) -75 mV and B) -25 mV. Experimental conditions are 1 M KCl, 20 mM MES, pH 6 at room temperature. It should be noted that higher applied voltage resulted in longer closures yielding very long closure times at -75mV. In this case we restricted our analysis to the open time interval. Switching of the voltage allows the channel to reopen for repeated analysis, e.g. for different or repeated voltage sequence. For the analysis of the rates we typically analyzed at least a few hundred events.

### Supplementary Figure 2



Single exponential fitting of blockage time histogram in the A) absence and B) presence of the peptide. Experimental conditions are 150 mM KCl, 10 mM MES, pH 6.

## Supplementary Figure 3



Single exponential fitting of open time histogram ( $k_{on}$  histogram) in the presence of the peptide at A) 25 mV and B) 50 mV. Experimental conditions are 1M KCl, 20 mM MES, pH 6.