Supplementary Figure 3  Fraction of trials (in silico experiments) with sustained calcium. (a) Cooperative model in which two pMHC, CD4, and Lck can be spatially localized (Fig.5). (b) Non-cooperative model in which endogenous and agonist pMHC behave autonomously. enMHC and agMHC denote endogenous and agonist pMHC, respectively. The plots range from the fraction of trials with sustained calcium being 0 (red) to 1 (violet); the contour spacing is 0.1. The criterion for sustained calcium is given in Fig. 6 of the main text; each point was calculated from 20 independent trials. The parameters for the binding and dissociation rates of agonist pMHC to TCR are taken from Grakoui et al. 4.