

**Supplementary Figure 1**. NET release by human neutrophils after stimulation with *C. albicans*, K1-*Kp* or K1-*Kp* incubated with mAbs 4C5, 19A10 and IgG control. Green channel shows neutrophils DNA and brightfield neutrophils and bacteria/fungi cells.



Supplementary Figure 2: *Galleria mellonella* survival and K1-*Kp* phagocytosis and killing by murine macrophages. (A) Shows preincubation of K1-*Kp* with 25  $\mu$ g of 4C5 or 19A10 enhances survival of infected *G. mellonella*. Significance was determined by Log-rank (Mantel-Cox) test (n= 20 worms per group) corrected with Bonferroni's multiple comparisons test. (B) 4C5 and 19A10 enhance phagocytosis of K1-*Kp* by murine macrophages J744.16. Graphs depicts mean % of macrophages with phagocytosed pH-rodo labeled K1-*Kp* + standard deviation after 67 min and 105 min in three independent experiments. *p*-values were determined by 2-way ANOVA with Tukey's multiple comparisons test. (C) Shows murine macrophage J744.16 killing of K1-*Kp*. *p*-values were determined by one-way ANOVA with Sidak's multiple comparisons test.



**Supplementary Figure 3. In vivo protection studies.** (A) Survival analysis of mice (n=6, per group) infected i.p. with  $5x10^4$  K1-*Kp* and treated with PBS, 250 µg 4C5, 250 µg 19A10 or 125 µg 4C5 and 19A10, respectively *p*-value was determined with log-rank (Mantel-Cox) corrected with Bonferroni's multiple comparisons test. (B) 24h post infection mean bacterial organ loads. Mean log CFU/ml + standard deviation (n=4 mice per group) are shown. Black \* denotes comparison of PBS and both mAbs. 2-way ANOVA with Tukey's multiple comparisons test was performed in (B) for p-value determination. Next panels, comparison of mean cytokine levels (24h post i.p. infection with  $5x10^4$  K1-*Kp*, treatments in Figure 3) in liver (C), spleen (D) and lung (E) are shown with standard deviation (n=4 mice per group). Black \* denotes comparison of PBS with 4C5 and blue \* with 19A10. 2-way ANOVA with Dunnett's multiple comparisons test was performed for *p*-value determination.



**Supplementary Figure 4. Intravital microscopy.** (A) Number of bacteria passing a fixed point in the sinusoid blood vessel (diameter between 5µm and 8µm) 24 hours post injection. (B) The number of stationary bacteria captured in a field of view 24 hours after injection. For each group (n= 3 mice) in (A) and (B), mouse with/without mAb treatment and i.p. injection of  $5x10^4$  GFP-expressing K1-*Kp* CFUs, an one-hour IVM video was taken based on the described protocol. (C) Number of bacteria passing a fixed point in the sinusoid blood vessel (diameter between 5µm and 8µm) 30 min post i.v. injection  $1x10^4$  GFP-expressing K1-*Kp* CFUs. Mice with or without mAb infected i.p  $1x10^4$  CFUs GFP-expressing K1-*Kp* CFUs. Bars represent means  $\pm$  standard deviations of three mice *p*-value were calculated by one-way ANOVA with Tukey's multiple comparisons test.